



Government of Andhra Pradesh

**COMMON SCHEDULE OF RATES
AS PER
A.P. REVISED STANDARD
DATA FOR THE YEAR 2018-19
(Effective from 1st June, 2018)**

BOARD OF CHIEF ENGINEERS

MASTER INDEX

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**Office of the Engineer-in-Chief(I.W)
Currency Nagar, Ramavarappadu,Vijayawada.**

Procs.No.ENC/IW/P&M/EE.1/DEE-2/AEE(K)/ SoR 2018-19/Vol.2 dt: 23.08.2018

- Sub:** Schedule of Rates for the year 2018-19 with basic rates (as per A.P.Revised Standard Data)-Water Resources Dept. Works(Part-I),Road & Bridge Works(Part-2) and Drinking water supply schemes(Part-4)-approved-Printing& Communication of SoRs-Reg.
- Ref:** 1)G.O.Ms.No.49,I&CAD (PW:Reforms)Dept., dt:2.3.2009
2)ENC(PH) Lr.No.146/T4/SoR 2018-19 dt:15.06.2018.
3)ENC(R&B) Lr.No.SoR-II/ ENC/ DEC(R)/ EE(TEC)/ DEE 7/AEE2 /2018 dt:15.06.2018.
4)Industrial Consumer Price Index points obtained from Commissioner, Labour Department for the months of April,2018 to September,2018
5)Minutes of BOCEs meeting for Schedule of Rates held on 26.06.2018 ,13-07-2018, 03.08.2018, 13.08.2018 and 16.08.2018.

The Government have approved A.P.Revised Standard Data vide ref 1st cited. The Schedule of Rates with basic rates as per A.P.Revised Standard Data for the year 2018-19 is approved based on the following:

The ENC(R&B) vide ref. 3rd cited has furnished the draft basic rates exclusive of GST for Roads & Bridge items for the year 2018-19.

The Engineer-in-Chief, Public Health Department has furnished draft basic rates exclusive of GST for Public Health works items and Public Health Materials vide ref 2nd cited.

The Chief Engineer(R&B),Building & RSW has yet to furnish the Part-III of Common SoR i.e., Buildings.

For Water Resources Department work items, the regional Superintending Engineers: SE, IC, Dowlaiswaram, SE, IC, Chittoor and SE, IC, Vijayawada have submitted the draft basic rates of materials. The SE, IC, Guntur has furnished draft rates for Mechanical and Workshop items. Accordingly, the draft rates for Water Resources Department are prepared.

The labour wages are finalized based on market rates duly keeping in view of the minimum wages calculated from the index points obtained from the Commissioner, Labour Department vide ref 4th cited for finalizing the Labour rates for SoR 2018-19.

Based on the above proposals, the draft Schedule of Rates for the parts I(WR items), Part-II(Roads & Bridge items) & Part-IV(PH items) are prepared for the SoR year 2018-19 and placed before the annual Board of Chief Engineers(BoCEs) meeting for approval. The BoCEs has reviewed and finalized the rates of above three parts during the meetings held on 26.06.2018,13-07-2018,03.08.2018 and 16.08.2018 in the conference hall of Engineer-in-chief(A.W/I.W),Vijayawada.

The procedure for the adoption of Water Resources work items, lead & lift charges (Common to all departments) is incorporated in the Annexure-A of SoR.

The approved basic rates are applicable to the datas as per A.P.Revised Standard Data approved by the Government vide G.O.1st cited.

For Roads & Bridge Works, the rates can be applied for MoRTH data as approved in the G.O. Ms. No. 2, Transport, Roads and Buildings (R-I) Dept., dt: 12.01.2015.

The lead & lift charges are common to all Engineering Departments. The detailed calculations are incorporated in the Lead & lift chapter in the WR Works (Part-I) of A.P.Revised Standard Data.

No other items other than the items communicated by this Office shall be introduced in the SoR.

The Heads of Department and Officers mentioned below are authorized to print the Schedule of Rates for the year 2018-19. Unauthorized printing & selling of the SoR is strictly prohibited.

Any discrepancies found (or) corrections required in SoR 2018-19 may be brought to the notice of undersigned for issuing corrections.

The revised rates will come into force from 1st June of 2018.

The receipt of the proceedings may be acknowledged.

Encl: SoR 2018-19 containing Part-I(Water Resources Dept. works),Part-II(Roads & Bridge works) and Part-IV (Public Health Items)

Sd/-K.Srinivas,dt:23.08.2018,
Engineer-in-Chief(I.W.)
Chairman, BOCE(SoR)

- I) Copy communicated to the Secretary to Govt., WR Dept., 4th Block, A.P.Secretariat Buildings, Vijayawada.
- II) Copy communicated to the following Heads of Departments along with Enclosures for information.
 - 1. Engineer-in-Chief (Admn.,NH &CRF), Roads & Buildings Department.
 - 2. Engineer-in-Chief (P.H.), Public Health Department.
 - 3. Engineer-in-Chief (P.R.), Panchayath Raj Department.
 - 4. Engineer-in-Chief (RWS) R W S, Department.
 - 5. Chief Engineer (Buildings&RSW), R&B Department.
- III) Copy of Scheduled of Rates 2018-19 with basic rates & Standard data, part-1 (WR Dept. works) communicated to the respective E-mail ids of all the Engineers-in-Chief, Chief Engineers and Regional Superintending Engineers of Irrigation circles of Vijayawada, Guntur, Dowlaiswaram and Chittoor of Water Resources Department for taking necessary action

Sd/-K.Srinivas,dt:23.08.2018,
Engineer-in-Chief(I.W.)
Chairman, BOCE(SoR)

ANNEXURE- A

1) The SPIU(Irrigation), Centre for Good Governance (CGG), Hyderabad has developed software package linking the basic input data of Irrigation with approved data of Water Resources work items.

2) The lead and lift charges are common to all Engineering Departments. The detailed calculations are incorporated in the Lead & Lift charges chapter in the Water Resources Department works (Part-1) of A.P. Revised standard data.

The Leads for Steel shall be from the nearest market place to the project area

3) The estimate sanctioning authority shall physically verify each and every Water Resources work item data incorporated in the estimate with basic input data before sanction of the estimate. **Any lapses or arithmetic errors arising in the sanction of data's / estimate due to adoption of the software package lies entirely on the concerned estimate sanctioning authority only.**

4) Any discrepancies / corrections required for improper basic input data appearing in the approved data's of Water Resources work items in the software package and hard copy of SoR & Standard data's (part-1) may be brought to the notice of undersigned for issuing corrections.

Sd/-K.Srinivas,dt:23.08.2018,
Engineer-in-Chief(I.W.)
Chairman, BOCE(SoR)

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PART-I

**(WATER RESOURCES
DEPARTMENT WORK ITEMS)**

PREAMBLE

PREAMBLE

I.0 AREA ALLOWANCES:

A) CORPORATIONS & MUNICIPALITIES:

- a) (i) 25% extra over the rates on labour component of works is allowed in all Municipal Corporation Limits of Andhra Pradesh except Greater Visakhapatnam and Vijayawada municipal corporations (up to a belt of 12 Kms. from Municipal Corporation limits) and other corporations as notified by the Government from time to time.
- (ii) 40% extra over the rates on labour component of works for Greater Visakhapatnam and Vijayawada Municipal Corporation (up to a belt of 12 Kms. from Municipal Corporation limits).
- (iii) 40% extra over the rates on labour component of works for Amaravati Capital City area(217 sq.km) as declared by the Govt.vide G.O.Ms.No.141,MA&UD (M2)Dept., dt:09.06.2015(This is introduced as per the Govt instructions issued in Govt.memo.No.668755/Reforms/2017 d:14.07.2017).
- b) Allow 20% extra over basic rates on labour component of works in all District Headquarters and the remaining Municipal limits (up to a belt of 12 Kms from Municipal limits).
- c) For works at Tirumala Hills in Chittoor District, 40% extra over the basic rates of labour component is allowed.
- d) For works at Horsely hills in Chittoor District, 30% extra over the basic rates of labour component is allowed.
- e) For works located inside Tirumala Temple, 20% extra over the basic rate of labour component specified for Tirumala Hills is allowed.
- f) For Works located inside T.T.D Temples of Sri Padmavathi Ammavari Temple, Tiruchanoor, Sri Govindaraja Swamy Temple at Tirupathi, Sri Kapleswara Swamy Temple, Kapilatheerthm, Tirupathi and Sri Kalyana Venkateswara Swamy Temple, Srinivasa Mangapuram , 20% extra over the basic rates of labour component for Tirupathi Municipal Corporation is allowed.

B) JAIL COMPOUNDS:

20% extra is allowed over labour rates for the work in the Jail compounds. Only equivalent number of Man Mazdoor shall be provided in the Jail premises and no women Mazdoor are allowed inside.

C) INDUSTRIAL AREA:

- a. 20% over basic rates on labour component works allowed for works situated within 10Kms belt of Industrial area of, Ibrahimpattanam, Vuyyuru, Jaggaiahpetta in Krishna District, Macherla, Gurajala, Challapalli in Guntur District Garividi in Vijayanagaram District, Renigunta in Chittoor District and Yerraguntla & Mangampet in Kadapa District, Hindupur, Tadipatri, Anantapur, Guntakal, Rayalcheruvu, Yadiki of Anantapur District and Adoni, Dhone,Cement Nagar, Nandyal, Kurnool, Yemmiganur & Bethamcherla of Kurnool District, Anakapally of Vishakhapatnam District.

D) AGENCY / TRIBAL AREAS:

- a) 25% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located within & upto 16 KMs from any all weather route inside Agency / Tribal.
- b) 40% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located beyond 16 KMs from any all weather route inside Agency / Tribal.

- NOTE:**
- 1. No extra percentage is permissible in respect of Forest produce such as Bamboo, Rellu grass and for all materials obtained from outside the Agency / Tribal.
 - 2. The extra percentage under Agency / Tribal areas allowance may be allowed on the labour component and on the labour charges in the rates for conveyance of materials.
 - 3. The extra percentage on cost of materials in Agency / Tribal areas can be allowed on the labour component only, if they are manufactured in the Agency / Tribal areas itself except Forest produce.

E) GHAT ROADS:

For Ghat Roads steeper than 1 in 20, the length of the road may be taken as 1.5 times the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned.

Foot Note: Under compelling circumstances, the concerned Chief Engineer can adopt the equivalent length of road as 2 ½ times of actual length.

Note below area allowances:

If more than one area allowance (such as those) for (1) Municipalities (2) Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed.

2.0 EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES: -

I) EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES: -

A. TRIAL TRENCHES:

- 1) Trial trenches of not more than 2 metres in width...25% extra

B. TRIAL PITS:

1) Up to 2 Metres depth	...	25% extra
2) 2 Metres to 4 Metres depth	...	50% extra
3) 4 Metres to 6 Metres depth	...	75% extra
4) 6 Metres to 8 Metres depth	...	100% extra
5) 8 Metres to 9 Metres depth	...	150% extra
6) More than 9 Metres depth	...	200% extra

II) EXCAVATION IN RESTRICTED PLACES:-

I) Foundation of Buildings	....	75% extra
II) For pipe lines where the depth is less than 1.5 times the width	....	75% extra
III) For pipe lines where the depth is 1.5 times or more than the width	....	120% extra
IV) Silt removal in restricted areas such U. T's., Culverts and Syphons	....	120% extra
V) Excavation of field channels	....	75% extra
VI) For narrow trenches not more than 2 meters in width and depth not less than twice the width and for excavation of road boundary drains, model sections of canals	....	75% extra
VII) High berm cutting of not more than 150 mm average thickness and sectioning for roads	....	50% extra

Note: 1) The extra percentage is allowed over Common item for all earth works (COM-MWRK- Manual Works) for corresponding soil and Standard data items. It includes the charges for all lifts and initial lead but does not include dewatering charges if any in respect of all the items under (A) and (B) above.

2) The above extra percentages in respect of excavation in hard rock for restricted places are to be allowed for (2/3)rd of the cost and shall not to be allowed in respect of items involving blasting component which may be taken as 1/3 of the cost.

3.0 SEIGNIORAGE CHARGES:

The rates of the materials indicated in the SOR are exclusive of Seigniorage Charges. Appropriate Seigniorage Charges for relevant materials are to be added to the Unit rate of work item in the estimates as fixed by the Government in G.O.Ms.No.100 (Industries and Commerce Dept.) dt: 31.10.2015. In case of revision, the revised rates as fixed by Mines and Geology Department have to be adopted.

LABOUR RATES

LABOUR RATES

Sl No.	CATEGORY OF WORKER	S. Rate for 2018-19
1	2	3
I.	SKILLED CATEGORY:	
1	Bar bender	600
2	Black smith / Tin smith / Rivetor	475
3	Blaster	550
4	Carpenter Cl- I	550
5	Electrician (Licensed)	555
6	Fitter Cl- I	520
7	Floor Polisher / Tile Layer	475
8	Foreman	550
9	Gauge reader	460
10	Maistry / Work Inspector with Non-technical Qualification SSLC/SSC/HSC	500
11	Mason Cl- I / Brick layer Cl- I	475
12	Mechanic Cl- I	510
13	Operator Air compressor / DG set	490
14	Operator Batching plant	550
15	Operator Bus/Ambulance/ Lorry/ Tanker	550
16	Operator Concrete / Asphalt mixer	490
17	Operator Concrete / Asphalt paver	490
18	Operator Concrete pump / Placer/ ice plant	490
19	Operator Core drilling machine	550
20	Operator Crane/ Tower crane/ Cable way	550
21	Operator Drilling jumbo / Loco / Winch	490
22	Operator Grouting/ Guniting/ Shotcreting	490
23	Operator Jackhammer/Pneumatic tamper	490
24	Operator Pump / Ventilation fan	490
25	Operator Lathe/Drilling/Shearing machine	550
26	Operator Bending / Planing machine	490
27	Operator Road roller	490

Sl No.	CATEGORY OF WORKER	S. Rate for 2018-19
1	2	3
28	Operator Shovel / Scraper / Dozer	550
29	Operator Spillway / Sluice gate	490
30	Operator Crusher / Conveyor / Mucker	490
31	Operator Tipper / Dumper / Transit mixer	550
32	Operator Concrete vibrator	490
33	Operator Vibratory plain / pad foot roller	490
34	Operator Wagon drill / Drifter	550
35	Painter Cl- I	550
36	Plumber / Pipe fitter	550
37	Sarang / Khalasi	490
38	Spun pipe moulder	490
39	Stone chiseller Cl- I / Stone cutter Cl- I	490
40	Struct. steel Fabricator / Marker / Erector	595
41	Welder / Gas Cutter	490
42	Welder (X-ray quality)	550
II.	SEMI SKILLED CATEGORY:	
1	Asphalt Sprayer / Boiler attendant	440
2	Bhisti	440
3	Boatman with boat	440
4	Carpenter Cl- II / Erector shuttering	440
5	Cartman with double bullock cart	500
6	Cartman with single bullock cart	465
7	Chavali / Navagani	440
8	Crowbarman / Jumper man	440
9	Fitter Cl- II	440
10	Gang man / Head / Survey mazdoor	440
11	Gardener / Trained mali	440
12	Air compressor / DG set	440
13	Helper Batching plant	440
14	Helper Blasting	440

Sl No.	CATEGORY OF WORKER	S. Rate for 2018-19
1	2	3
15	Helper Bus/ Ambulance/ Lorry/ Tanker	440
16	Helper Bending/Shearing/Planing machine	440
17	Helper Carpenter	440
18	Helper Concrete / Asphalt mixer	440
19	Helper Concrete / Asphalt paver	440
20	Helper Core drilling machine	440
21	Helper Crane/ Tower crane/ Cable way	440
22	Helper Drilling jumbo / Loco / Winch	440
23	Helper Fitter / Fabrication/Electrician	440
24	Helper Grouting/ Guniting/ Shotcreting	440
25	Helper Jack hammer / Pneumatic tamper	440
26	Helper Laboratory / Instrumentation	440
27	Helper Road roller	440
28	Helper Shovel / Scraper / Dozer	440
29	Helper Crusher / Conveyor / Mucker	440
30	Helper Tipper / Dumper/ Transit mixer	440
31	Helper Vibrator	440
32	Helper Vibratory plain/ pad foot roller	440
33	Helper Wagon drill/ Drifter	440
34	Lineman Electric / Telephone	440
35	Mason Cl- II / Brick layer Cl-II	440
36	Mechanic Cl- II	440
37	Painter Cl- II	440
38	Patkari / Neeraganti / Sowdy	440
39	Stone Chiseller Cl- II	440
40	Stone breaker / Hammer man	440
41	Valve man / Canal sluice operator	440
III.	UN-SKILLED CATEGORY:	
1	Cement / Asphalt handling mazdoor	400
2	Civic worker	400
3	Man mazdoor	400

Sl No.	CATEGORY OF WORKER	S. Rate for 2018-19
1	2	3
4	Woman mazdoor	400
5	Watchman	400
IV.	OTHER CATEGORY:	
1	Care-taker / conductor / Lift Attender	450
2	Cook / Mess man	450
3	Dhobi	450
4	Diploma Engineer / Surveyor	725
5	Diver with headgear	560
6	Graduate / Laboratory Assistant	560
7	Graduate Engineer/ Geologist	935
8	Horticulture Assistant / Photographer	460
9	ITI certificate holder / Tracer / Printer	560
10	Literate mazdoor	435
11	Stenographer / Computer Operator	610
12	Telephone / Wireless Operator	550
13	Typist / Job Typist	550
14	CAD operator with Diploma in Engineering/General degree with CAD certificate	750
15	Jeep Driver	545
16	Data Processing Operator	750

Note: - 1)The wage should not be less than the minimum wages of schedule of employment, subject to out turn. 2) 25% extra over the corresponding labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under Greater Visakhapatnam Municipal Corporation and Vijayawada Municipal Corporation limits only.

BASIC INPUT DATA FOR WATER RESOURCE WORK ITEMS

**STATEMENT OF RATES FOR MATERIALS FOR
THE YEAR : 2018-19
GENERAL GUIDE LINES FOR REVISING RATES OF MATERIALS:**

- 1 Average of the prevailing market rates, ignoring freak rates, is the criteria for Fixing market rates for materials.
- 2 The rates for materials are **exclusive of GST**, duties and other local levies.
- 3 The rates for materials are **exclusive of** Seigniorage charges wherever applicable.
- 4 The rates for materials, except those for which lead charges are admissible as per the Statement of lead charges is for all leads.
5. The rates provided for useful rubble / stone chips from excavation shall be at dump yard.
6. Unless otherwise specified the rate of materials are inclusive of loading charges.

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
1	Acetylene gas	cum	293
2	Asphalt 80/100 Grade	Kg	39
3	Binding wire	Kg	53
4	Burnt stone slab 10 cm thick	sqm	271
5	Cement 43 Gr/53 Gr Note: Rate as fixed by the Government	tonne	3882
6	Chequered plate	Kg	55
7	Coarse aggregate 10-4.75 mm	cum	860
8	Coarse aggregate 20-10 mm	cum	1182
9	Coarse aggregate 40-20 mm	cum	1133
10	Coarse aggregate 80-40 mm	cum	622
	The aggregate rates mentioned above (from Sl.No.7 to Sl.No.10) are exclusive of Seigniorage charges but including blasting charges of Rs.70/cum and 25% machine crushing charges. However, if the metal is obtained from hand broken, the blasting and crushing charges shall be deducted. The aggregate shall be HB Stone of Granite, Dolomite, Dolerite and Trap. (Quartzite and Basalt with aggregate impact of less than 20)		
11	Coir brush	Each	39

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
12	Copper sheet 16 SWG	kg	606
13	Coursed rubble stone 30 x 30 x 45 cm	Each	23
14	Coursed rubble stone 30 x 30 x 60 cm	Each	26
15	Curing Compound	Ltr	107
16	D – cord	Rm	6
17	Delay - noiseless trunk	Each	16
18	Detonating fuse coil	Rm	7
19	Detonating shock tube / Cord relays	Rm	32
20	Detonator delay type	Each	17
21	Detonator electric	Each	9
22	Detonator ordinary	Each	5
23	Empty cement bag	Each	5
24	Explosive ANFO	kg	39
25	Explosive ANFO high strength booster	kg	60
26	Explosive small dia (Kelvex-220 or equivalent)	kg	56
27	(a)Fine aggregate/ sand(un- screened) for Concrete & Filtering items)	cum	100
	(b)Fineaggregate/Sand(unscreened)for filling		100
28	Fine aggregate /Sand (Screened) for Mortar ,Plastering items and Sand blasting items (Rs.82 is added towards screening Charges)	cum	182
29	Geo-textile (filter fabric) 160 gsm	sqm	85
30	Geo-textile (filter fabric) 200 gsm	sqm	101
31	Geo-textile (filter fabric) 250 gsm	sqm	116
32	G I Pipe 100 mm dia B Class	Rm	675
33	G I Pipe 15 mm dia A class	Rm	80
34	G I pipe 25 mm dia A class	Rm	140
35	G I pipe 40 mm dia B class	Rm	218

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
36	G I pipe 50 mm dia A class	Rm	250
37	G I Pipe 80 mm dia B Class	Rm	428
38	G.I Bolts / Nuts and Washers	kg	88
39	G.I sheet (plain)	tonne	53333
40	Hariyala turfing sods	sqm	24
41	Hectometer stone one line dressed	Each	248
42	Hemp yarn	kg	61
43	Honne wood planks	cum	41921
44	Hume pipe with collar 150 mm dia	Rm	233
45	Hume pipe with collar 300 mm dia	Rm	508
46	J- Bolts 30 cm long	Each	31
47	Jungle wood planks	cum	17855
48	Khandki stone 15 to 20 cm height	Each	11
49	Khandki stone 20 to 25 cm height	Each	14
50	Khandki stone 25 to 30 cm height	Each	16
51	Kilometer stone one line dressed	Each	457
52	LDPE sheet (Geo membrane) 500 micron thick	sqm	78
53	LDPE sheet (Geo membrane) 750 micron thick	sqm	114
54	LDPE sheet (Geo membrane) 1000 micron thick	sqm	157
55	M S Bolts / Nuts / Washers	kg	68
56	Murum	cum	185
57	Oxalic acid	Ltr	68
58	Oxygen gas	cum	36
59	PVC sealing strip	Rm	38
60	PVC water stopper 310 mm wide	Rm	398
61	PVC pipe of 100 mm dia	Rm	144
62	Reinforcement steel (HYSD/TMT) Note: As per Monthly rate fixed by Sub-Committee	tonne	42,000(Rate for 5/2018)

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
63	Resin bond Cement capsule	Each	42
64	Rough stone 20 x 20 x 75 cm	Each	22
65	Shahabad stone slab	sqm	224
66	Stone chips (at dump yard/Spoil)	cum	176
67	Stone chips (at quarry)	cum	333
68	Structural steel angle / channel / beam / bars Note: As per Monthly rate fixed by Sub-Committee	tonne	41,300(Rate for 5/2018)
69	Structural steel plate / flats Note: As per Monthly rate fixed by Sub-Committee	tonne	41,200(Rate for 5/2018)
70	Super Plasticizer (Conplast RP-264 or equivalent)	kg	43
71	Synthetic Enamel paint 1st quality	Ltr	222
72	Synthetic adhesive (Resin + Hardener)	Kg	280
73	Tar felt joint filler board 12 mm thick	sqm	322
74	Tar felt joint filler board 20 mm thick	sqm	489
75	Through stones 20 x 20 x 30 to 45 cm	Each	21
76	Through stones 25 x 25 x 45 to 60 cm long	Each	37
77	Through stones 30 x 30 x 65 to 75 cm long	Each	56
78	Un-coursed rubble stones (at dump yard /Spoil)	cum	148
79	Un-coursed rubble stones (at quarry)	cum	303
80	Water proofing compound	kg	64
81	Welding electrodes 4 mm dia	Each	11
82	Wire brush	Each	36

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
83	Wire mesh 20 gauge	sqm	205
84	Zinc chromate red oxide primer paint	Ltr	144
85	inorganic zinc silicate	Ltr	481
86	solvent less coal tar epoxy paint	Ltr	234
87	Zinc phosphate primer	Ltr	178
88	Allkyd based iron oxide paint	Ltr	144
89	a) Cost of hdpe (90mm dia)	Rm	195
	b) light black MS casing pipe 100 mm dia (4mm thick)	Rm	406
90	welded steel wire fabric 100X100X5 mm size	Kg	168
91	Protective Mastic	Ltr	399
92	Solventless coal tar epoxy (brown)	Ltr	256

**ADDITIONAL MATERIALS FOR G A T E S & HOISTS
FOR THE YEAR: 2018-19**

GUIDE LINES:

- a. For cast steel / Alloy steel / Forged steel / Bronze, aluminum alloy components the rates shall be inclusive of cost of basic metal for these components, casting / forging charges, machining charges and applicable excise duty on finished alloy component.
- b. For other materials the rates shall be prevailing market rates.

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
1	Alloy steel (IS : 1570-carbon steel) shafts	Kg	213
2	Alloy steel (IS : 1570-stainless steel) pins	Kg	408
3	Bolt / Nut / Washer (hot dipped galvanized)	Kg	127
4	Bolt / Nut / Washer (stainless steel)	Kg	331
5	Bronze/Aluminum alloy(IS:305)bearings/bushes	Kg	878
6	Cast iron blocks	Kg	77
7	Cast steel drums / gears	Kg	213
8	Cast steel pinions	Kg	204
9	Cast steel wheels / pulleys / hubs / rollers / Retainers	Kg	172
10	Chemical for de-greasing/ de-rusting/phosphate	Ltr	111
11	Coal tar epoxy paint	Ltr	172
12	Forged steel hooks / shackles	Kg	244
13	MS pipe 200 / 300 mm dia	Kg	158
14	MS pipe 32 mm dia	Rm	167
15	MS pipe 25 mm dia	Rm	135
16	Rubber bottom seal (IS : 11855) (100mmX14 mm)	Rm	606
17	Rubber side seal (music note type Teflon claded) (IS : 11855) (36ØX113mmX14mm)	Rm	1296
18	Rubber side seal (music note type uncladed) (IS : 11855) (36ØX113mmX14mm)	Rm	939
19	Rubber side seal Z-type (IS : 11855) (36ØX120mmX19mm)	Rm	1242

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S. Rate for 2018-19
1	2	3	4
20	Rubber corner seal (Teflon claded) (IS : 11855) (36Ø)	Each	1303
21	Rubber corner seal (un claded) (IS : 11855) (36Ø)	Each	920
22	Stainless steel plates / flats	Kg	41.20
23	Welding electrode 4 mm dia x 450 mm (radiographic low hydrogen)	Each	14
24	Welding electrode 4 mm dia x 450 mm (stainless steel)	Each	20
25	Wire rope 6x37 constn (IS : 2266)	Kg	169
26	Zinc	Kg	175
27	Zinc rich (zinc content : 90 %) epoxy primer	Ltr	559

**MATERIALS FOR POWER SUPPLY WORKS FOR
THE YEAR : 2018-19**

Sl No.	Description of Material	Unit	S. Rate for 2018-19
1	Electric pole with fixtures	Each	For establishing Electrical Sub-Stations at the Project Sites wherever necessary, the rates approved by APTRANSCO may be followed.
2	Flood light 500 W	Each	
3	Flood light set	Each	
4	Flousscent tube light 40 W	Each	
5	Flousscent tube light set	Each	
6	HT / LT Circuit breaker with accessories	Set	
7	HT / LT Line conductor	1000 m	
8	PVC Armoured cable 10 sqmm and below	Rm	
9	PVC Armoured cable 16 sqmm	Rm	
10	PVC Armoured cable 25 sqmm	Rm	
11	PVC Armoured cable 70 sqmm	Rm	

**DETAILS OF CAPITAL COST OF MACHINERY / EQUIPMENT FOR THE
YEAR: 2018-19**

GUIDE LINES FOR FIXING CAPITAL COST OF MACHINERY / EQUIPMENT:

1. The Capital cost of machinery / equipment shall be for new machinery / equipment and shall be exclusive of GST, duties, other levies.
2. The cost of transport vehicles / equipment shall be exclusive of cost of tyres and tubes.
3. The cost of drill rods / drill bits / air hose / water hose / road tax / insurance charges and Other consumable accessories shall not be included in the capital cost.
4. In cases, where the current capital cost of machinery / equipment could not be collected through enquiries, the capital cost considered for previous year may be updated on the basis of average percentage increase / decrease in the index for machinery published in the R.B.I Bulletin.

Sl No:	DESCRIPTION OF MACHINERY / EQUIPMENT	UNIT	S. Rate for 2018-19
1	2	3	4
1	Agitator car / Transit mixer 2 cum (excluding tyres)	Each	17,49,210
	tyres and tubes 6 sets		69,970
2	Air compressor 5 cmm electric	Each	5,77,650
3	Air compressor 7 cmm diesel	Each	7,72,910
4	Air compressor 7 cmm electric	Each	7,03,750
5	Air compressor 8.5 cmm diesel	Each	8,82,740
6	Air compressor 8.5 cmm electric	Each	9,11,220
7	Air compressor 15 cmm electric	Each	11,14,610
8	Angle Dozer 90 hp	Each	44,54,380
9	Batching plant 0.5 cum with accessories(6 Cum/hr)	Each	9,76,300
10	Batching plant 2 x 1.00 cum with accessories (15 Cum/hr)	Each	34,53,670
11	Batching plant 2 x 1.50 cum with accessories (50 Cum/hr)	Each	52,88,310
12	Bending machine	Each	4,70,210
13	Clamp shell and hoisting ropes	Each	26,620
14	Concrete bucket 1.5 cum	Each	45,560
15	Concrete hand mixer 45/30 ltr	Each	12,610
16	Concrete mixer 300/200 ltr(diesel)	Each	1,22,040
17	Concrete mixer 300/200 ltr (electric)	Each	1,17,970
18	Concrete mixer 600/400 ltr(diesel)	Each	2,11,530
19	Concrete mixer 600/400 ltr (electric)	Each	2,07,460

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No:	DESCRIPTION OF MACHINERY / EQUIPMENT	UNIT	S. Rate for 2018-19
1	2	3	4
20	Concrete paver 100 Sqm / hr	Each	19,20,880
21	Convey mucker (excluding tyres)	Each	31,36,370
	tyres and tubes 6 sets		69,970
22	Core drilling machine	Each	8,94,940
23	Diesel generating set 30 KVA	Each	4,02,720
24	Diesel generating set 50 KVA	Each	5,20,690
25	Diesel Loco 45 hp	Each	17,24,800
26	Dewatering pump 5 hp diesel	Each	32,540
27	Dewatering pump 5 hp electric	Each	19,930
28	Dewatering pump 10 hp diesel	Each	48,820
29	Dewatering pump 10 hp electric	Each	44,750
30	Dewatering pump 20 hp diesel	Each	1,54,580
31	Dewatering pump 20 hp electric	Each	81,360
32	Drifter	Each	8,60,770
33	Drilling jumbo (excluding tyres)	Each	10,59,290
	tyres and tubes 6 sets		69,970
34	Dumper 4.5 cum (excluding tyres)	Each	11,79,700
	tyres and tubes 6 sets		69,970
35	Geophysical Ele.resistivity meter	Each	4,34,760
36	Grouting pump	Each	82,990
37	Guniting / sand blasting equipment	Each	2,48,410
38	Ice plant with accessories 30 t / day	Each	20,86,850
39	Jack hammer	Each	52,880
40	Needle vibrator 40 mm petrol	Each	16,270
41	Needle vibrator 40 mm electric	Each	17,090
42	Needle vibrator 60 mm petrol	Each	17,490
43	Needle vibrator 60 mm electric	Each	20,750
44	Planing machine 4 m stroke	Each	6,92,010
45	Plate shearing machine up to 12 mm	Each	3,77,060

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No:	DESCRIPTION OF MACHINERY / EQUIPMENT	UNIT	S. Rate for 2018-19
1	2	3	4
46	Pneumatic placer 0.5 cum	Each	4,71,880
47	Pneumatic tamper	Each	69,150
48	Pug cutting machine	Each	14,200
49	Pusher leg	Each	46,130
50	Road roller diesel 10 t	Each	6,91,550
51	Shovel 0.50 cum 75 hp	Each	30,50,950
52	Shovel 0.85 cum 110 hp	Each	51,90,680
53	Stationery derrick crane 5 t	Each	5,31,270
54	Tipper 5 cum (excluding tyres)	Each	13,22,080
	tyres and tubes 6 sets		69,970
55	Tipping tub 1.5 cum	Each	1,95,260
56	Tower crane 5 tonne	Each	60,81,550
57	Transformer 250 KVA	Each	4,24,190
58	Truck 10 t (excluding tyres)	Each	12,00,040
	tyres and tubes 6 sets		69,970
59	Truck mounted derrick crane 5 t (excluding tyres)	Each	15,94,630
	tyres and tubes 6 sets		69,970
60	Upright drilling machine	Each	45,560
61	Ventilation fan 20 hp	Each	2,30,670
62	Vibratory pad foot roller 8 t	Each	24,00,080
63	Wagon drill	Each	5,28,830
64	Water tanker 8000 ltr (excluding tyres)	Each	13,01,530
	tyres and tubes 6 sets		69,970
65	Welding set	Each	42,300
66	Winch 35 hp electric	Each	305100
67	Hydraulic Truck Crane 30T	Each	117,84,180
	tyres and tubes 6 sets		1,50,690
68	Hydraulic Truck Crane 16T	Each	84,53,870
	tyres and tubes 6 sets		1,50,690

Part I-Basic Input data for WR Work items – Common SoR 2018-19

Sl No:	DESCRIPTION OF MACHINERY / EQUIPMENT	UNIT	S. Rate for 2018-19
1	2	3	4
69	Heavy Duty Airless Spray Painting Equipment	Each	3,96,840
70	Concrete Placer Pump(25 Cum/hr)(Electric)	Each	27,69,800

ACCESSORIES TO MACHINERY / EQUIPMENT FOR THE YEAR : 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S Rate for 2018-19
1	2	3	4
1	Casing shoe bit	Each	10,480
2	Diamond core bit BX size	Each	10,580
3	Diamond core bit NX size	Each	12,700
4	Double tube core barrel	Each	13,540
5	Extension drill rod with coupling sleeve	Rm	1,880
6	Jack hammer drill rod 1.5 m	Each	3,570
7	Jack hammer drill rod 2.5 m	Each	5,550
8	Nozzle for Guniting / sand blasting gun	Each	620
9	Paving Cylinder	Each	28,030
10	Rails 30R (30 kg / m)	tonne	51,400
11	Reamer shell	Each	5,140
12	T.C. Cross bit 50 mm dia	Each	4,990
13	T.C. Cross bit 75 mm dia	Each	9,980
14	T.C. Cross bit 100 mm dia	Each	11,980
15	Tyres and Tubes for truck	Set	14,580
16	Wire rope 16 mm dia	Rm	260
17	Excavation of drain with Excavator	cum	37

AGGREGATE CRUSHING & PROCESSING PLANT

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S Rate for 2018-19
1	2	3	4
1	Jaw crusher 900 x 500 mm (120 tph) with 50 hp motor	Each	These items are no where being used in the Standard Data. Hence this may be deleted from SoR
2	Jaw crusher 500 x 300 mm (60 tph) with 30 hp motor	Each	
3	Jaw crusher 400 x 225 mm (10 tph) with 25 hp motor	Each	
4	Jaw plates 900 x 500 mm (serreted)	Set	
5	Jaw plates 500 x 300 mm (serreted)	Set	
6	Jaw plates 400 x 225 mm (serreted)	Set	
7	Nylon Conveyor belt 3 ply 600 mm width	Rm	
8	Nylon Conveyor belt 3 ply 1000 mm width	Rm	

OTHER COSTS ON MATERIAL / MACHINERY / EQUIPMENT FOR THE YEAR : 2018-19

1. The rate provided for ' SUNDRIES' (Lump sum provision for unquantified inputs in the data rates) shall be updated on the basis of general percentage increase / decrease in the market rates or on the basis of R.B.I ' All Commodity' index.
2. The rate for structural steel fabrication shall include cost of all materials (except structural steel), machinery, labour and one coat of primer painting.
3. Demand charges and electric power charges shall be as per prevailing APEPDCL tariff.
4. Rate of interest on capital cost shall be as approved by Govt or other competent authority.

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S Rate for 2018-19
1	2	3	4
1	Air hose 25 mm dia	Rm	164
2	Air hose 50 mm dia	Rm	254
3	Demand charges (HT-I : General-11 KV category) on power supply(as per APEPDCL tariff)	KVA / month	475
4	Diesel	Ltr	75.75
5	Electric power (HT-VIII Category) including tax (1.5 times of the Tariff of HT-I(A):General-11 KVA Category) (as per APEPDCL tariff)	Kwhr	9.50
6	Excise duty on Gates / Hoist supplies	%	0%
7	Insurance charges on machinery	% / annum	1%
8	Interest on capital cost	% / annum	11.00%

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Sl No.	DESCRIPTION OF MATERIAL	UNIT	S Rate for 2018-19
1	2	3	4
9	Lubricants	Ltr	220
10	Petrol	Ltr	84.37
11	Rivets	Kg	85
12	Road tax on transport vehicles	Rs./annum	As per RTA
13	Shalimatic sealing compound	Kg	85
14	Shutter oil	Ltr	44
15	Structural steel fabrication	Kg	28
16	Sundries (Lump sum for un quantified inputs)	LS	31
17	Water hose (pressure) 20 mm dia	Rm	164
18	Steel wedges	LS	15
19	Elbows / Nipple / Plugs etc.,	LS	15
20	Soldering materials	LS	15
21	Steam circulation arrangement	LS	15
22	Fuel charges (gas for heating)	LS	17
23	Vulcanizing materials	LS	18
24	Other accessories / controls / junctions	LS	Deleted
25	Miscellaneous fittings / switches etc	LS	Deleted
26	Anchors / supports for cables / lights	LS	Deleted
27	Civil works for foundations / pedestals / duct etc	LS	Deleted
28	Gas cutting set (2 No's 15 m hose and nozzle unit)	Each	12,797
29	Grease	Kg	243
30	Welding holder set (cable / holder / gloves / mask etc)	Each	6,884
31	Use rate of ropes	LS	156

MATERIALS FOR GATES AND HOISTS
FOR THE YEAR : 2018-19

Sl No.	DESCRIPTION OF MATERIAL	UNIT	S Rate for 2018-19
1	Worm reducers	Each	1,74,210
2	Electric motor 20 hp(Double Shaft)	Each	93,970
3	Electric motor 17.5 hp(Double Shaft)	Each	66,610
4	Electric motor 12.5 hp(Double Shaft)	Each	56,360
5	Electric motor 5 hp(Double Shaft)	Each	25,620
6	Electric motor 3 hp (Double Shaft)	Each	17,930
7	Electric motor 2 hp (Double Shaft)	Each	9,790
8	Floating shaft 300 mm dia	Kg	150
9	Manual operating system	Each	26,240
10	Gate position indicator	Each	1,58,460
11	Ele-magnetic brake	Each	27,330
12	Electric cable / switch / control panel etc	LS	44,460
13	Wire rope sockets	Each	4,300

**Materials other than covered under WR Work
items For the year 2018-19
GENERAL GUIDE LINES FOR REVISING RATES OF MATERIALS:**

1. Average of the prevailing market rates, ignoring freak rates, is the criteria for Fixing market rates for materials.
2. The rates for materials is inclusive of GST, duties and other local levies.
3. The rates for materials are **exclusive of** Seigniorage charges wherever applicable.
4. The rates for materials, except those for which lead charges are admissible as per the Statement of lead charges is for all leads.

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-002	Quarried stone 150 - 200 mm size for Hand Broken	Cum	140
M-003	Boulder with minimum size of 300 mm for Pitching	Cum	156
M-004	Coarse sand for filling	Cum	Rate as per item no.27(b) of material of WRD
M-005	Coarse sand for mortar	Cum	Rate as per item no.27(a) of material of WRD
M-006	Fine Sand	Cum	Rate as per item no.28 of material of WRD
M-007	Murum	Cum	Rate as per item no.56 of Material rates of WRD.
M-008	Gravel/Quarry spall	Cum	110
M-009	Granular Material or hard Murum for GSB works	Cum	Deleted
M-010	Granular Material or hard Murum for GSB works	Cum	92
M-011	Fly ash conforming to IS: 3812 (Part II & I)	Cum	61
	For item No.M-012 to M-055 the note shall be as follows 1) The rates mentioned are exclusive of Seigniorage charges but inclusive of blasting charges of Rs.70/cum and 25% machine crushing charges. However, if the metal is obtained by hand broken, machine crushing charges shall be deducted. 2) If the material is obtained by hand broken from surface boulders/canal spoil, the blasting and crushing charges shall be deducted. 3)The material shall be HB Stone of Granite, Dolomite, Dolerite and Trap.(Quartzite and Basalt with aggregate impact of less than 20)		

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-012	Filter media/Filter Material as per Table 300-3 (MoRT&H Specification)	Cum	332
M-013	Close graded Granular sub-base Material 53 mm to 9.5 mm	Cum	639
M-014	Close graded Granular sub-base Material 37.5 mm to 9.5 mm	Cum	656
M-015	Close graded Granular sub-base Material 26.5 mm to 9.5 mm	Cum	680
M-016	Close graded Granular sub-base Material 9.5 mm to 4.75 mm	Cum	567
M-017	Close graded Granular sub-base Material 9.5 mm to 2.36 mm	Cum	558
M-018	Close graded Granular sub-base Material 4.75mm to 2.36 mm	Cum	489
M-019	Close graded Granular sub-base Material 4.75mm to 75 micron mm.	cum	469
M-020	Close graded Granular sub-base Material 2.36 mm	Cum	469
M-021	Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve.	Cum	343
M-022	Coarse graded Granular sub-base Material 2.36 mm & below	Cum	420
M-023	Coarse graded Granular sub-base Material 4.75mm to 75 micron mm	cum	455
M-024	Coarse graded Granular sub-base Material 4.75 mm to 2.36 mm	Cum	455
M-025	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm	Cum	538
M-026	Coarse graded Granular sub-base Material 26.5 mm to 4.75 mm	Cum	593
M-027	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm	Cum	594
M-028	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm	Cum	656
M-029	Coarse graded Granular sub-base Material 53 mm to 26.5mm	Cum	813
M-030	Aggregates below 5.6 mm	Cum	534
M-031	Aggregates 22.4 mm to 2.36 mm	Cum	874
M-032	Aggregates 22.4 mm to 5.6 mm	Cum	994
M-033	Aggregates 45 mm to 2.8 mm	Cum	639

Part I - Materials not covered under WR Work items basic data– Common SoR 2018-19

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-034	Aggregates 45 mm to 22.4 mm	Cum	Rate as per item no.9 of Material rates of WRD.
M-035	Aggregates 53 mm to 2.8 mm	Cum	874
M-036	Aggregates 53 mm to 22.4 mm	Cum	834
M-037	Aggregates 63 mm to 2.8 mm	Cum	683
M-038	Aggregates 63 mm to 45 mm	Cum	634
M-039	Aggregates 90 mm to 45 mm	Cum	Rate as per item no.10 of Material rates of WRD.
M-040	Aggregates 10 mm to 5 mm	Cum	Rate as per item no.7 of Material rates of WRD.
M-041	Aggregates 11.2 mm to 0.09 mm	Cum	674
M-042	Aggregates 13.2 mm to 0.09 mm	Cum	763
M-043	Aggregates 13.2 mm to 5.6 mm	Cum	879
M-044	Aggregates 13.2 mm to 10 mm	Cum	983
M-045	Aggregates 20 mm to 10 mm	Cum	Rate as per item no.8 of Material rates of WRD.
M-046	Aggregates 25 mm to 10 mm	Cum	1079
M-047	Aggregates 19 mm to 6 mm	Cum	994
M-048	Aggregates 37.5 mm to 19 mm	Cum	1054
M-049	Aggregates 37.5 mm to 25 mm	Cum	1094
M-050	Aggregates 6 mm nominal size	Cum	703
M-051	Aggregates 10 mm nominal size	Cum	894
M-052	Aggregates 13.2/12.5 mm nominal size	Cum	1048
M-053	Aggregates 20 mm nominal size	Cum	1303
M-054	Aggregates 25 mm nominal size	Cum	1254

Part I - Materials not covered under WR Work items basic data – Common SoR 2018-19

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-055	Aggregates 40 mm nominal size	Cum	808
M-056	AC pipe 100 mm dia	Metre	Rate as per PH item
M-057	Acrylic polymer bonding coat	Litre	451
M-058	Aluminum Paint	Litre	256
M-059	Aluminum alloy plate 2mm Thick	Sqm	323
M-060	Aluminum alloy/Galvanized steel	Tonne	60,047
M-061	Aluminum sheeting fixed with encapsulated lens type reflective sheeting including 2% towards lettering, cost of angle iron, cost of drilling holes, nuts, bolts etc. and signs as applicable	Sqm	819
M-062	Aluminum studs 100 x 100 mm fitted with lens reflectors	No's	As per local market rate
M-063	Barbed wire	Kg	68
M-064	Bearing (Cost of parts)	No's	483
M-065	Bearing (Cast steel rocker bearing assembly of 250 tonne)	No's	665
M-066	Bearing (Elastomeric bearing assembly consisting of 7 internal layers of elastomer bonded to 6 nos. internal reinforcing steel laminates by the process of vulcanization,)	Cm ³	As per Market Competitive rates.
M-067	Bearing (Forged steel roller bearing of 250 tonne)	No's	
M-068	Bearing (Pot type bearing assembly consisting of a metal piston supported by a disc, PTFE pads providing sliding surfaces against stainless steel mating together with cast steel assemblies/fabricated structural steel assemblies duly painted with all components	No's	
M-069	Bearing (PTFE sliding plate bearing assembly of 80 tonnes)	No's	
M-070	Bearing (Supply of sliding plate bearing of 80 tonne)	No's	
M-071	Bentonite	Kg	7.0
M-072	Binding wire	Kg	Rate as per item no.3 of Material rates of WRD.
M-073	Bitumen (Cationic Emulsion)	Tonne	As per rates fixed by R&B Dept based on refinery rates
M-074	Bitumen (60-70 grade)	Tonne	
M-075	Bitumen (80-100 grade)	Tonne	

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Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-076	Bitumen (Cutback)	Tonne	As per rates fixed by R&B Dept based on refinery rates
M-077	Bitumen (emulsion)	Tonne	
M-078	Bitumen (modified graded)	Tonne	
M-079	Brick	Each	As per Building SSR
M-080	C.I. shoes for the pile	Kg	46
M-081	Cement	Tonne	Rate as per item no.5 of Material rates of WRD.
M-082	Cold twisted bars (HYSD/TMT Bars)	Tonne	Rate as per item no.62 of Material rates of WRD
M-083	Collar for joints 300 mm dia	No's	128
M-084	Compressible Fibre Board(20mm thick)	Sqm	473
M-085	Connectors/ Staples	Each	64
M-086	Copper Plate(12m long x 250mmwide)	Kg	254
M-087	Corrosion resistant Structural steel	Tonne	50138
M-088	Corrugated sheet, 3 mm thick, "Tie" beam section railing	Kg	174
M-089	Credit for excavated rock found suitable for use	Cum	194
M-090	Curing compound	Liter	101
M-091	Delineators from ISI certified firm as per the standard drawing given in IRC - 79	Each	As per local competitive quotations
M-092	Earth Cost or compensation for earth taken from private land	Cum	55
M-093	Elastomeric slab seal expansion joint assembly manufactured by using chloroprene, elastomer for elastomeric slab unit conforming to clause 915.1 of IRC: 83 (part II),	Metre	As per local competitive quotations
M-094	Electric Detonators @ 1 detonator for 1/2 gelatin stick of 125 gms each	100 no's	Rate as per item No. 21 of WRD
M-095	Epoxy compound with accessories for preparing epoxy mortar	Kg	280
M-096	Epoxy mortar	Kg	92
M-097	Epoxy primer	Kg	476
M-098	Epoxy resin-hardener mix for prime coat	Kg	491
M-099	Flag of red color cloth 600 x 600 mm	Each	24

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Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-100	Flowering Plants	Each	40
M-101	Galvanized MS flat clamp	No's	165
M-102	Galvanized steel wire crates of mesh size 100 mm x 100 mm woven with 4mm dia. GI wire in rolls of required size.	Sqm	152
M-103	Galvanized structural steel plate 200 mm wide, 6 mm thick, 24 m long	Kg	789
M-104	Gelatin 80%	Kg	57
M-105	Geo grids	Sqm	As per local competitive quotations
M-106	(a)Geo membrane 500 micron thick	Sqm	Rate as per item No. 52 of WRD
	(b) Geo membrane 750 micron thick	Sqm	Rate as per item No. 53 of WRD
	(c) Geo membrane 1000 micron thick	Sqm	Rate as per item No. 54 of WRD
M-107	Geo nets	Sqm	As per local competitive quotations
M-108	(a)Geo textile 160 gsm	Sqm	Rate as per item No. 29 of WRD
	(b) Geo textile 200 gsm	Sqm	Rate as per item No. 30 of WRD
	(c) Geo textile 250 gsm	Sqm	Rate as per item No. 31 of WRD
M-109	Geo textile filter fabric	Sqm	As per local competitive quotations
M-110	GI bolt 10 mm Dia	No's	19
M-111	Grouting pump with agitator	Hour	Rate covered in Item No.36 of hire charges of machinery of Water Resources work items
M-112	Grass (Doob)	Kg	6
M-113	Grass (Fine)	Kg	8
M-114	HDPE pipes 75mm dia	Metre	Rate as per PH items
M-115	HDPE pipes 90mm dia	Metre	

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Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-116	Hedge plants	Each	Rate as per local competitive quotations
M-117	Helical pipes 600mm diameter	Metre	
M-118	Hot applied thermoplastic compound	Litre	
M-119	HTS strand	Tonne	35,556
M-120	Joint Sealant Compound	Kg	58
M-121	Jute netting, open weave, 2.5 cm square opening for seeding and Mulching	Sqm	76
M-122	LDO for steam curing	Litre	57
M-123	M.S. Clamps	Kg	Deleted
M-124	M.S. Clamps	Kg	Rate as per local competitive quotations
M-125	M.S. shoes @ 35 Kg per pile of 15 m	Kg	Rate as per local competitive quotations
M-126	Mild Steel bars	Tonne	39,674
M-127	Modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and up to 140mm assembly comprising of edge beams, central beam, 2 modules chloroprene seal, anchorage elements, support and control system, all steel sections protected against corrosion and installed by the manufacturer or his authorized	Metre	Rate as per local competitive quotations
M-128	Modular strip/box seal expansion joint catering to a horizontal movement beyond 140mm and up to 210mm box/box seal joint assembly containing 3 modules/cells and comprising of edge beams, two central beams, chloroprene seal, anchorage elements, support and control system, all steel sections protected against corrosion and installed by the manufacturer or his authorized representative	Metre	Rate as per local competitive quotations
M-129	Nipples 12mm	No's	17
M-130	Nuts and bolts	Kg	85
M-131	Paint	Litre	198
M-132	Pavement Marking Paint	Litre	Rate as per local competitive quotations
M-133	Paving Fabric	Sqm	
M-134	Perforated geo synthetic pipe 150 mm dia	Metre	
M-135	Perforated pipe of cement concrete, internal dia 100 mm	Metre	

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Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-136	Pesticide	Kg	Rate as per local competitive quotations
M-137	R.C.C Pipes 200 mm dia, 2.5 m long for drainage	Metre	Rate as per PH item
M-138	Plastic sheath, 1.25 mm thick for dowel bars	Sqm	47
M-139	Plastic tubes 50 cm dia , 1.2 m high	No's	Rate as per local competitive quotations
M-140	Polymer braids	Metre	
M-141	Pre moulded Joint filler, 25 mm thick for expansion joint.	Sqm	262
M-142	Pre-coated stone chips of 13.2 mm nominal size	Cum	Rate as per local competitive quotations
M-143	Preformed continuous chloroprene elastomer or closed cell foam sealing element with high tear strength, vulcanized in a single operation for the full length of a joint to ensure water tightness.	Metre	Rate as per local competitive quotations
M-144	Pre-moulded asphalt filler board	Sqm	
M-145	Pre-packed cement based polymer concrete of strength 45 Mpa at 28 days	Kg	Rate as per local competitive quotations
M-146	Sealant Primer	Kg	148
M-147	Quick setting compound	Kg	27
M-148	Random Rubble Stone	Cum	240
M-149	RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia	Metre	Rate as per PH items
M-150	RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia	Metre	
M-151	RCC Pipe NP 4 heavy duty non pressure pipe 300 mm dia	Metre	
M-152	Reflectorising glass beads	Kg	Rate as per local competitive quotations
M-153	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Copper Strips)	Metre	
M-154	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Galvanized carbon steel strips)	Metre	
M-155	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Glass reinforced polymer/ fiber reinforced polymer/polymeric strips)	Metre	

Part I - Materials not covered under WR Work items basic data – Common SoR 2018-19

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-156	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Stainless steel strips)	Metre	Rate as per local competitive quotations
M-157	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Aluminum strips)	Metre	
M-158	Rivets	Each	6
M-159	Sand bags (Cost of sand and Empty cement bag)	Per bag	Rate as per Item no.2 of miscellaneous items
M-160	Sapling 2 m high 25 mm dia	Each	Rate as per local competitive quotations
M-161	Scrap tyres of size 900 x 20	No's	68
M-162	Seeds(Grass)	Kg	18
M-163	Cost of Selected earth	Cum	Rate as per Item No. M-092
M-164	Separation Membrane of impermeable plastic sheeting 125 micron thick	Sqm	Rate as per local competitive quotations
M-165	Sheathing duct	Metre	
M-166	Shrubs	Each	15
M-167	Sludge / Farm yard manure @ 0.18 cum per 100 sqm at site of work for turfing	Cum	Rate as per local competitive quotations
M-168	Sodium vapour lamp	Each	As per Building SSR
M-169	Square Rubble Coursed Stone	Cum	2,130
M-170	Steel circular hollow pole of standard specification for street lighting to mount light at 5 m height above deck level	Each	Rate to be obtained from Electricity/Municipal Departments
M-171	Steel circular hollow pole of standard specification for street lighting to mount light at 9 m height above road level	Each	
M-172	Steel drum 300 mm dia 1.2 m high/empty bitumen drum	No's	As per local competitive market rate
M-173	Steel helmet and cushion block on top of pile head during driving.	Kg	
M-174	Steel pipe 25 mm external dia as per IS:1239	Metre	244
M-175	Steel pipe 50 mm external dia as per IS:1239	Metre	475
M-176	Steel wire rope 20 mm	Kg	157
M-177	Steel wire rope 40 mm	Kg	179
M-178	Strip seal expansion joint	Metre	Rate as per local competitive quotations

Part I - Materials not covered under WR Work items basic data – Common SoR 2018-19

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-179	Structural Steel(HYSD/TMT bars)	Tonne	Rate as per item no.62 of Material rates of WRD
M-180	Super plasticizer admixture IS marked as per 9103-1999	Kg	Rate as per item no.70 of Material rates of WRD
M-181	Synthetic Geo grids as per clause 3102.8 and approved design and specifications.	Sqm	Rate as per local competitive quotations
M-182	Through and bond stone (a) 20X20x30 to 45 cm long	Each	Rate as per item no.75 of Material rates of WRD.
	Through and bond stone (b) 25X25x45 to 60 cm long	Each	Rate as per item no.76 of Material rates of WRD.
	Through and bond stone (c) 30X30x65 to 75 cm long	Each	Rate as per item no.77 of Material rates of WRD.
M-183	Tie rods 20mm diameter	No's	46
M-184	Tiles size 300 x 300 mm and 25 mm thick	Each	As per Building SSR
M-185	Timber	Cum	
M-186	Traffic cones with 150 mm reflective sleeve	No's	Rate as per local competitive quotations
M-187	Tube anchorage set complete with bearing plate, permanent wedges etc	No's	
M-188	Un slaked lime	Tonne	2,491
M-189(a)	Water charges(Urban)	KiloLitre	103
(b)	Water charges(Rural)	KiloLitre	77
M-190	Water based cement paint	Litre	As per Building SSR
M-191	Welded steel wire fabric	Kg	131
M-192	Wire mesh 50mm x 50mm size of 3mm wire	Kg	213
M-193	Wooden ballies 2" Dia for bracing	Each	As per Building SSR
M-194	Wooden ballies 8" Dia and 9 m long	Each	
M-195	Wooden packing	Cum	1,071

Sl. No.	Description	Unit	S. Rate for 2018-19
1	2	3	4
M-196	Wooden staff for fastening of flag 25 mm dia, one m long	Each	67
Item 8.3	Printing new letter and figures of any shade (ii) English Roman	per cm height per letter	1.60
Item 8.8	Painting Two Coats on New Concrete Surfaces	Sqm	As per Building SSR
Item 8.9	Painting angle iron post Two Coats	Sqm	As per Building SSR
Miscellaneous Items			
1	Benching old embankment slopes 0.45 X 0.45 M	RM	4.20
2	Laying Sand Bags in the stipulated places including cost of empty cement bag, sand, thread, stitching charges and labour charges with 13.615 % overhead charges and contractors profits.	per bag	8.50
3	Rough stone for revetment 225mm thick	Cum	138
4	Eradication of Weed growth from Drains, Canals by spraying Chemicals	Sqm	1.75
5	Thinner	Ltr	78
6	Gear Oil	Ltr	228
7	Cardium compound	kg	92

Conveyance Charges of Material

CONVEYANCE CHARGES OF MATERIALS AS PER SoR 2018-19
(COMMON TO ALL DEPARTMENTS).

**LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS FOR
THE YEAR: 2018-19**

1. For total lead up to 150 m (including initial lead) lead charges by head load only shall be adopted irrespective of mode of conveyance.
2. For total lead exceeding 150 m conveyance by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The rates for loading at quarry including idle hire charges of trucks and hire charges per for each kilometer and up to 5 km are cumulative and inclusive of total charges for Preceding lead.
4. Unless otherwise specified lead charges for Earth / Sand / Gravel / Aggregates and Stones are for loose volume and not for compacted or in-situ volume.
5. The rates for lift charges, lead charges, hire charges are cumulative and inclusive of rates for preceding lift, lead and hire charges.
6. Lift charges are not payable where conveyance of materials is by mechanical means to final placing point.
7. Loading and unloading charges are not payable for conveyance by head load.
8. Loading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 50 m wherever specified.
9. Loading and unloading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 1 km wherever specified.
10. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone are inclusive of stacking.
11. Hire charges are per 1KM for tippers and trucks for transport of materials from work site to dump yard and other places are cumulative & includes previous km up to 5 kms
12. The lead & lift charges are inclusive of contractor's profit and overhead charges of 13.615%
13. **During the BoCE meeting held on 24-05-2014, it is observed that in some of the estimates, Lead Charges are being added directly to the material basic rates for arriving the finished item rate. In view of that, the BoCE has instructed to see that while arriving the finished item rate, the lead charges are to be added to the material basic rates only after deducting the provision of "Contractor's Profit and Overhead charges"**
14. The loading and unloading charges are also inclusive of Contractor's profit and overhead charges of 13.615%

**A. (LEAD) CONVEYANCE CHARGES FOR MATERIALS BY
HEAD LOAD FOR THE YEAR: 2018-19**

Sl No.	Total distance (Total lead includes initial lead)	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs/Cum	Cement / Reinforce- ment steel Str steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab/ Late-rite / Wood Rs / cum
1	2	3	4	5
1	Total lead up to 50 m (covered by item rate)	initial lead	initial lead	initial lead
2	Total lead up to 100 m	64.90	37.90	82.60
3	Total lead up to 150 m	129.80	75.70	165.30

Notes: 1. No loading or unloading charges are admissible for conveyance by head load.
2. For total lead exceeding 150 m conveyance charges by mechanical means only shall be adopted irrespective of mode of conveyance.

3.The lead & lift charges are inclusive of 13.615% Contractor Profit and Over Head charges

**B.(LEAD) CONVEYANCE CHARGES FOR MACHINERY PER KILOMETER
FOR TRANSPORTING MATERIALS BY TIPPERS AND TRUCKS
EXCLUDING LOADING, UNLOADING AND IDLE HIRE CHARGES OF
MACHINERY FOR THE YEAR: 2018-19**

(No loading and unloading charges allowed for machinery loading and unloading)

Sl No.	Distance	(Lead) charges for trucks and tippers for Earth / Sand /Gravel / Murrum/ Lime/ Surki/ per cu.meter	(Lead) charges for trucks and tippers for Rubble/Size stones/ Cut Stones/ Coarse aggregate per cu.meter	(Lead) charges for trucks and tippers for Cement/ Steel/ RCC poles/ AC & GI sheets/ Packed materials/	(Lead) charges for trucks and tippers per cu.meter for PCC slabs/ Shahabad slabs/ CC & Laterite blocks/ Wood/ cum	(Lead) charges for trucks and tippers per cu.meter water/ 1000	(Lead) charges for trucks per 1000 nos. of bricks
1	2	3	4	5	6	7	8
1	Lead up to 1 km	32.40	31.50	19.70	46.30	20.20	52.50
2	Lead up to 2 km	45.30	44.10	27.50	64.80	28.20	73.50
3	Lead up to 3 km	60.50	60.50	37.80	88.90	37.60	98.00
4	Lead up to 4 km	73.40	73.40	45.90	108.00	45.70	118.90
5	Lead up to 5 km	86.40	86.40	54.00	127.00	53.70	139.90
6	for Every km beyond 5 km up to 30 km	13.00	13.00	8.10	19.10	8.10	21.00
7	for Every km beyond 30 km	10.80	10.80	6.80	15.90	6.70	17.50

Note: The lead & lift charges are inclusive of 13.615% Contractor Profit and Over Head charges

**C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS
(idle hire charges of trucks are not added)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate, Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	21.40	43.10	71.20	85.30	59.30
2	Unloading	10.70	21.55	71.20	85.30	59.30

Note: The lead & lift charges are inclusive of 13.615% Contractor Profit and Over Head charges

**D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS
(including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate, Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	117.00	138.50	176.10	190.20	232.50
2	Unloading	42.50	69.25	176.10	190.20	232.50

Note: The lead & lift charges are inclusive of 13.615% Contractor Profit and Over Head charges.

**E.LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS
(including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate, Lime in Rs/cum
1	2	3	4
1	Loading	52.30	104.20
2	Unloading	16.40	16.40

Note: The lead & lift charges are inclusive of 13.615% Contractor Profit and Over Head charges

F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD

Sl No.	Total lift (Total lift includes initial lift)	Earth / Sand /Gravel Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs / cum	Cement / Reinforce- ment steel Str steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab / Laterite / Wood Rs / cum
1	2	3	4	5
1	Total lift up to 3 m (covered by item rate)	Initial lift	Initial lift	Initial lift
2	For Every 1.00 Lift beyond initial lift of 3 meters	7.60	5.50	10.10

Note: The lead & lift charges are inclusive of 13.615% Contractor Profit and Over Head charges

HIRE CHARGES

**HIRE CHARGES OF PLANT &
MACHINERY FOR THE YEAR : 2018-19**

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
1	Agitator car / Transit mixer 2 cum	Hour	617.10	1145.70	308.90	2071.70
2	Air compressor 5 cmm (electric)	Hour	88.10	287.00	181.40	556.50
3	Air compressor 7 cmm (diesel)	Hour	196.30	937.40	232.10	1365.80
4	Air compressor 7 cmm (electric)	Hour	107.30	382.70	181.40	671.40
5	Air compressor 8.5 cmm (diesel)	Hour	224.20	1171.80	232.10	1628.10
6	Air compressor 8.5 cmm (electric)	Hour	139.00	478.40	181.40	798.80
7	Air compressor 15 cmm (electric)	Hour	112.90	1063.10	193.40	1369.40
8	Angle Dozer 90 hp	Hour	1395.70	801.50	257.40	2454.60
9	Batching plant 0.5 cum (6 Cum/hr)	Hour	93.20	127.60	370.60	591.40
10	Batching plant 2 x 1.00 cum (15 Cum/hr)	Hour	329.80	382.70	370.60	1083.10
11	Batching plant 2 x 1.50 cum (50 Cum/hr)	Hour	505.00	467.70	370.60	1343.30
12	Bending machine 3000 x 12 mm	Hour	37.80	127.60	145.10	310.50
13	Clamp shell and hoisting ropes	Hour	4.80	0.00	0.00	4.80
14	Concrete bucket 1.5 cum	Hour	12.90	0.00	0.00	12.90
15	Concrete hand mixer 45 / 30 ltr	Hour	4.50	0.00	0.00	4.50
16	Concrete mixer 300 / 200 (diesel)	Hour	43.50	104.20	241.80	389.50
17	Concrete mixer 300 / 200 ltr (electric)	Hour	42.10	42.50	241.80	326.40
18	Concrete mixer 600 / 400 (diesel)	Hour	75.40	208.30	241.80	525.50
19	Concrete mixer 600 / 400 ltr (electric)	Hour	74.00	85.00	241.80	400.80
20	Concrete paver 100 sqm / hr	Hour	290.00	0.00	464.30	754.30
21	Convey mucker	Hour	669.50	296.00	193.40	1158.90
22	Core drilling machine	Hour	259.50	312.50	308.90	880.90
23	Diesel generating set 30 KVA	Hour	53.60	833.30	145.10	1032.00
24	Diesel generating set 50 KVA	Hour	69.20	1249.90	145.10	1464.20
25	Diesel Loco 45 hp	Hour	310.50	703.10	181.40	1195.00
26	Dewatering pump 5 hp (diesel)	Hour	8.30	104.20	122.30	234.80
27	Dewatering pump 5 hp (electric)	Hour	2.40	42.50	91.70	136.60

Machinery Hire Charges – Common SoR 2018-19

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
28	Dewatering pump 10 hp (diesel)	Hour	12.40	208.30	122.30	343.00
29	Dewatering pump 10 hp (electric)	Hour	5.50	85.00	91.70	182.20
30	Dewatering pump 20 hp (diesel)	Hour	39.30	416.60	122.30	578.20
31	Dewatering pump 20 hp (electric	Hour	10.00	170.10	91.70	271.80
32	Drifter	Hour	262.50	0.00	386.10	648.60
33	Drilling jumbo	Hour	299.70	56.20	193.40	549.30
34	Dumper 4.5 cum	Hour	472.50	524.90	247.10	1244.50
35	Geophysical Electric resistivity meter	Hour	90.60	0.00	0.00	90.60
36	Grouting pump	Hour	20.30	42.50	290.20	353.00
37	Guniting / sand blast equipment	Hour	97.70	0.00	241.80	339.50
38	Ice plant & accessories 30 t / day	Hour	155.70	1211.90	145.10	1512.70
39	Jack hammer	Hour	16.10	0.00	362.70	378.80
40	Needle vibrator 40 mm (petrol)	Hour	6.20	23.20	174.10	203.50
41	Needle vibrator 40 mm (electric)	Hour	6.50	8.50	174.10	189.10
42	Needle vibrator 60 mm (petrol)	Hour	6.70	34.80	174.10	215.60
43	Needle vibrator 60 mm (electric)	Hour	7.90	12.80	174.10	194.80
44	Planing machine 4 m stroke	Hour	104.50	127.60	232.10	464.20
45	Plate shearing machine up to 12 mm	Hour	37.20	170.10	154.40	361.70
46	Pneumatic placer 0.5 cum	Hour	139.20	0.00	95.60	234.80
47	Pneumatic tamper	Hour	16.90	0.00	290.20	307.10
48	Pug cutting machine	Hour	5.70	4.30	0.00	10.00
49	Pusher leg	Hour	11.30	0.00	0.00	11.30
50	Road roller diesel 10 t	Hour	160.40	937.40	232.10	1329.90
51	Shovel 0.50 cum 75 hp	Hour	816.10	624.90	257.40	1698.40
52	Shovel 0.85 cum 110 hp	Hour	1388.50	1145.70	257.40	2791.60
53	Stationery derrick crane	Hour	70.10	0.00	0.00	70.10
54	Tipper 5 cum	Hour	363.50	393.70	193.10	950.30
55	Tipping tub 1.5 cum	Hour	52.20	0.00	0.00	52.20
56	Tower crane 5 tonne	Hour	705.50	221.10	205.90	1132.50
57	Transformer 250 KVA	Hour	5031.40	0.00	0.00	5031.40
58	Truck 10 t	Hour	336.90	393.70	193.10	923.70
59	Truck mounted derrick crane 5 t	Hour	422.80	393.70	193.10	1009.60
60	Upright drilling machine/grinder	Hour	18.30	42.50	214.50	275.30

Machinery Hire Charges – Common SoR 2018-19

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
61	Ventilation fan 20 hp	Hour	10.20	170.10	31.60	211.90
62	Vibratory pad foot roller 8 t	Hour	1092.00	1354.00	290.20	2736.20
63	Wagon drill	Hour	153.40	0.00	308.90	462.30
64	Water tanker 8000 ltr	Hour	359.00	393.70	193.10	945.80
65	Welding set	Hour	14.10	102.10	0.00	116.20
66	Winch 35 hp (electric)	Hour	105.30	208.40	290.20	603.90
67	Hydraulic Truck Crane 30T	Hour	2519.40	118.80	576.60	3214.80
68	Hydraulic Truck Crane 16T	Hour	1853.40	75.00	576.60	2505.00
69	Heavy Duty Airless Spray Painting Equipment	Hour	98.80			98.80
70	Concrete Placer Pump (25 cum/hr) (Electric)	Hour	817.10	510.30	181.40	1508.80
71	Tractor with 2 T roller	Hour				345.00



Government of Andhra Pradesh

**COMMON SCHEDULE OF RATES
FOR THE YEAR 2018-19
(Effective from 1st June, 2018)**

R&B Department, AP

ROAD & BRIDGE WORKS

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PART-II
ROAD & BRIDGE WORKS

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PREAMBLE

1.0 AREA ALLOWANCES:

A) CORPORATIONS & MUNICIPALITIES:

- a)
 - i) 25% extra over the rates on labour component of works is allowed in all Municipal Corporation Limits of Andhra Pradesh except Greater Visakhapatnam Municipal Corporation and Vijayawada Municipal Corporation (Upto a belt of 12 kms from Municipal corporation limits) and other Municipal Corporations as notified by the Government from time to time.
 - ii) 40% extra over the rates on labour component of works for Greater Visakhapatnam and Vijayawada Municipal Corporation limits (Upto a belt of 12 kms from Municipal corporation limits)
 - iii) 40% extra over the rates on labour component of works for Amaravati Capital City area (2017 Sq. Km) as declared by the Govt. vide GO MS No. 141 MA&UD (M2) Dept., dt. 9.6.2015 (This is introduced as per the Govt. instructions issued in Govt. Memo No. 668755/ Reforms/ 2017 dt. 14.7.2017).
- b) Allow 20% extra over basic rates on labour component of works in all District Headquarters and the remaining Municipal limits (up to a belt of 12 Kms. from Municipal limits)
- c) For works at Tirumala Hills in Chittoor District, 40% extra over the basic rates of labour component is allowed.
- d) For works at Horsely hills in Chittoor District, 30% extra over the basic rates of labour component is allowed.
- e) For works located inside Tirumala Temple, 20% extra over the basic rate of labour component specified for Tirumala Hills is allowed.
- f) For Works located inside T.T.D Temples of Sri Padmavathi Ammavari Temple, Tiruchanoor, Sri Govindaraja Swamy Temple at Tirupathi, Sri Kapileswara Swamy Temple, Kapilatheertham, Tirupathi and Sri Kalyana Venkateswara Swamy Temple, Srinivasa Mangapuram , 20% extra over the basic rates of labour component for Tirupathi Municipal Corporation is allowed.

B) JAIL COMPOUNDS:

20% extra is allowed over labour rates for the works in the Jail compounds. Only equivalent number of Man Mazdoor shall be provided in the Jail premises and no Women Mazdoor are allowed inside.

C) INDUSTRIAL AREA:

- a. 20% Extra over basic rates on labour component works allowed for works situated within 10 Kms belt of Industrial area of Ibrahimpatnam, Vuyyuru, Jaggaiahpetta in Krishna District, Macherla, Gurajala, Challapalli in Guntur District, Garividi in Vijayanagaram District, Renigunta in Chittoor District, Yerraguntla & Mangampet in Kadapa District, Hindupur, Tadipatri, Anantapur, Guntakal, Rayalcheruvu, Yadiki of Anantapur District, Adoni, Dhone, Cement Nagar, Nandyal, Kurnool, Yemmiganur & Bethamcherla of Kurnool District and Anakapally of Vishakhapatnam District.

D) AGENCY / TRIBAL AREAS:

- a) 25% extra allowed for the works located with in the interior Agency / Tribal limits, i.e. for the works located with in & upto 16 KMs from any all weather route inside Agency / Tribal.
- b) 40% extra allowed for the works located with in the interior Agency / Tribal limits, i.e. for the works located beyond 16 KMs from any all weather route inside Agency / Tribal.

- NOTE:**
1. No extra percentage is permissible in respect of Forest produce such as Bamboo, Rellu grass and for all materials obtained from outside the Agency / Tribal.
 2. The extra percentage under Agency / Tribal areas allowance may be allowed on the labour component and on the labour charges in the rates for conveyance of materials.
 3. The extra percentage on cost of materials in Agency / Tribal areas can be allowed on the labour component only, if they are manufactured in the Agency / Tribal areas itself except Forest produce.

E) GHAT ROADS:

For Ghat Roads steeper than 1 in 20, the length of the road may be taken as 1.5 times the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned.

Note: Under compelling circumstances, the concerned Chief Engineer can adopt the equivalent length of road as 2 ½ times of actual length.

Note for area allowances:

If more than one area allowance (such as those) for (1) Municipalities (2) Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed.

2.0 WATER LEADS:

The following labour is allowed for conveyance of water for every ½ Kilometer lead or part there of over the initial lead of ½ kilometer.

- a) Cement concrete : 1.5 Women Mazdoor / Cum.
- b) Masonry : 1.0 Woman Mazdoor/ Cum.
- c) Plastering : 0.5 Woman Mazdoor/ 10 Sq.m

Note:- For Water leads of over 2 KMs, specific approval of Chief Engineer concerned is necessary.

3.0 EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES: -

I) EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES: -

A. TRIAL TRENCHES:

- 1) Trial trenches of not more than 2 metres in width ...25% extra

B. TRIAL PITS:

- 1) Up to 2 Metres depth ... 25% extra
- 2) 2 Metres to 4 Metres depth ... 50% extra
- 3) 4 Metres to 6 Metres depth ... 75% extra
- 4) 6 Metres to 8 Metres depth ... 100% extra
- 5) 8 Metres to 9 Metres depth ... 150% extra
- 6) More than 9 Metres depth ... 200% extra

II) EXCAVATION IN RESTRICTED PLACES:-

- I) Foundation of Buildings 75% extra
- II) For pipe lines where the depth is less than 1.5 times the width 75% extra
- III) For pipe lines where the depth is 1.5 times or more than the width 120% extra
- IV) Silt removal in restricted areas such as U. T's., Culverts and Syphons. ... 120% extra
- V) Excavation of field channels ... 75% extra

- VI) For narrow trenches not more than 2 meters in width and depth not less than twice the width and for excavation of road boundary drains, model sections of canals. ... 75% extra
- VII) High berm cutting of not more than 150 mm average thickness and Sectioning for roads ... 50% extra

Note: 1) The extra percentage is allowed over rate for corresponding soil. It includes the charges for all lifts and initial lead but does not include dewatering charges if any in respect of all the items under (A) and (B) above.

- 2) The above extra percentages in respect of excavation in hard rock for restricted places are to be allowed for (2/3) rd of the cost and shall not to be allowed in respect of items involving blasting component which may be taken as 1/3 of the cost.

4.0 Proportion of First class and 2nd class workmen under Skilled Labour:

30% of the skilled labour provided in the data may be taken as 1st Class and the remaining 70% as 2nd Class.

5.0 Revetment and apron works:

- I) The size of stone for the volume range (0.015 to 0.030 Cum) shall not be less than (0.30 X 0.30 X 0.15 to 0.30 X 0. 225 X 0.225m)
- II) The size of stone for the volume range (0.011 to 0.015 Cum) shall not be less than (0.30 X 0.225 X 0.15 to 0.225 X 0.225 X 0. 225 m)
- III) The rate of labour component as per the standard data book is to be adopted for revetment work only. However for apron work Rs. 3.00 per cum. should be deducted.
- IV) For the labour for the “Rock Toe” shall be taken as 2/3rd of the labour charges of revetment as Chief Engineer, Circular No. P3/ OT2/ T3/ 65167/78, Dt: 19.03.1980.

6.0 Deep cuts:

Deep cuts are defined as reaches of canal where excavation in all soils is for a depth of excavation 6m and more. The following increase over normal rates is permitted in deep cuts on a graded basis.

- I) Up to 6 m excavation: The S. S. R. of corresponding classification of earth work excavation is applicable.
- II) Beyond 6 m and up to 9 m excavation - 9% extra
- III) Beyond 9 m and up to 12 m excavation - 12% extra
- IV) Beyond 12 m and up to 16 m excavation - 15% extra

V)	Beyond 16 m and up to 30 m excavation	-	20% extra
VI)	Beyond 30 m excavation	-	40% extra

NOTE : 1) The extra percentage is only on basic rate. 2) The above percentage are not applicable for **“LEADS & LIFTS”**. 3) The above extra percentages are to be allowed only on items excluding the blasting component which may be taken as 1/3 of the rate.

7.0 The conveyance of bitumen for bulk and packed may be admitted as follows:

Packed	---	Rs. 1.75 per Km/ MT
Bulk	---	Rs. 1.65 per Km/ MT (round the trip)

8.0 SEIGNIORAGE CHARGES:

Seigniorage charges for materials as fixed by the Government in G.O.Ms.No.100 (Industries and commerce department) Dt. 31.10.2015 may be added in the data of rates in the estimate. The Provision towards Contractor's Profit and Overhead charges **should not be operated** on the Seigniorage Charges while adding Seigniorage Charges to the data in the estimate. In case of revision, the revised rates as fixed by Mines and Geology Department have to be adopted.

9.0 Earthwork excavation rate for Trench cutting, formation of embankment & shoulders, foundations, removal of unserviceable soil etc., is to be arrived based on the Machinery adopted in the MoRTH Standard data book for excavation of soil.

10.0 All the Materials rates and Machinery Hire charges are excluding GST.

LABOUR RATES

Si. No	S.S. Item No.	Description	Unit (Per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
		(A) SKILLED WORKMEN			
		First Class			
1	a	Mason and stone cutter	Day	490	As per WR Dept. (S.No.39)
2	b	Brick Layer	Day	475	As per WR Dept. (S.No.11)
3	c	Carpenter	Day	550	As per WR Dept. (S.No.4)
4	d	Painter	Day	550	As per WR Dept. (S.No.35)
5	e	Plumber	Day	550	As per WR Dept. (S.No.36)
6	f	Welder	Day	490	As per WR Dept. (S.No.41)
7	g	Fitter	Day	520	As per WR Dept. (S.No.6)
8	h	Electrician	Day	555	As per WR Dept. (S.No.5)
9	1	Cook	Day	450	As per WR Dept. (S.No.2) Other Category
10	2	Mechanic	Day	510	As per WR Dept. (S.No.12)
11	3	Rigger	Day	515	
12	4	Rigger Syrang	Day	515	
13	5	Well Sinker	Day	515	
14	6	Blaster	Day	550	As per WR Dept. (S.No.3)
15	3	Bar bender	Day	600	As per WR Dept. (S.No.1)
16	7	Tipper and Heavy Vehicle Driver above 12 T	Day	550	As per WR Dept. (S.No.15)
17		Tanker and medium Vehicle driver (7.5 T to 12 T)	Day	513	
18		Tanker and Light Vehicle driver up to 7.5 T	Day	396	
19		Wagon Drill Operator upto 7.5 T	Day	512	
20	8	Lorry and Heavy Vehicle Driver above 12 T	Day	543	
21		Road Roller Driver (7.5 T to 12 T)	Day	490	As per WR Dept. (S.No.27)
22		Road Roller Driver 7.5 T	Day	Deleted	
23	9	Tractor Driver above 12 T	Day	Deleted	
24		Tractor Driver (7.5 T to 12 T)	Day	Deleted	
25		Tractor Driver 7.5 T	Day	494	
		<u>Operator</u>			
26	10	Pan Mixer	Day	530	
27		Concrete Mixer	Day	490	As per WR Dept. (S.No.16)

Si. No	S.S. Item No.	Description	Unit (Per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
28		Vibrator	Day	490	As per WR Dept. (S.No.32)
29		Composer	Day	493	
30		Jack Hammer	Day	490	As per WR Dept. (S.No.23)
31		Driller	Day	550	As per WR Dept. (S.No.34)
32		Boring Maistry	Day	474	
33	11	Pump operator	Day	490	As per WR Dept. (S.No.24)
34	12	Turner Grade-I	Day	515	
35	13	Wireless Operator	Day	550	As per WR Dept. (S.No.12) Other Category
36	14	Assistant Wireless Operator	Day	470	
37	15	Jeep Driver	Day	545	As per WR Dept. (S.No.15) Other Category
38	16	Work Inspector with I.T.I qualification	Day	560	As per WR Dept. (S.No.9) Other Category
39	17	Work Inspector with LCE, LME,L.E.E qualification	Day	725	As per WR Dept. (S.No.4) Other Category
40	18	Work Inspector with B.E (Civil, Mechanical and Electrical) qualification	Day	935	As per WR Dept. (S.No.7) Other Category
41	19	Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	550	As per WR Dept. (S.No.10)
42	20	Mason Spl. Grade for Mossaic and Polished shahabad stone floor	Day	508	
43	21 a(i)	Typist / Job Typist	Day	550	As per WR Dept. (S.No.13) Other Category
	a (ii)	Computer operator	Day	610	As per WR Dept. (S.No.11) Other Category
	b	CAD Operator with Diploma in Engineering /General degree with CAD certificate	Day	750	As per WR Dept. (S.No.14) Other Category
		(B) SEMI –SKILLED WORKMEN			
		SECOND CLASS			
44	a	Mason	Day	440	As per WR Dept. (S.No.35) Semi-Skilled
45	b	Brick Layer and Stone Cutter	Day	440	As per WR Dept. (S.No.35) Semi-Skilled
46	c	Carpenter	Day	440	As per WR Dept. (S.No.4) Semi-Skilled
47	d	Painter	Day	440	As per WR Dept. (S.No.37) Semi-Skilled

Sl.no	S.S. Item No.	Description	Unit (Per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
48	e	deleted			
49	f	Blacksmith	Day	475	As per WR Dept. (S.No.2) (Skilled)
50	g	Welder	Day	451	
51	h	Fitter	Day	451	
52	i	Electrician	Day	451	
53	2	Caulker	Day	451	
54	4	Tinker	Day	451	
55	5	Sawyer	Day	451	
56	6	Brick-Moulder	Day	451	
57	7	Pot-tile turner	Day	451	
58	8	Pan-tile turner	Day	451	
59	9	Brick and Lime Kiln man/Glazier	Day	451	
60	10	Telephone Operator	Day	550	As per WR Dept. (S.No.12) Other Category
61	11	Hand Driller	Day	452	
62	12	Quarry Man	Day	452	
63	13	Hammer Man	Day	440	As per WR Dept. (S.No.40) Semi-skilled
64	14	Thatcher	Day	451	
65	15	Fireman	Day	451	
66	16	Cleaner/Helper	Day	451	
67	17	Stone Packer	Day	451	
68	18	Jawali	Day	451	
69	19	Ex-Service man/Goorkha watchman	Day	451	
70	20	Ratton Worker	Day	451	
71	21	Mate	Day	451	
72	1	Head Mazdoor (Mukaddar)	Day	440	As per WR Dept. (S.No.10) Semi-Skilled

(C) UNSKILLED WORKMEN

73	2	Man Mazdoor	Day	400	As per WR Dept. (S.No.3) Un-Skilled
74	3	Watch Man	Day	400	As per WR Dept. (S.No.5) Un-Skilled
75	5	Woman Mazdoor	Day	400	As per WR Dept. (S.No.4) Un-Skilled
76	6 (b)	Helper/Cleaners/Sweepers/Scavangers/Choukidars/Security Guards/Office Boys	Day	400	
77	Note : Whenever unskilled workmen are engaged for cleaning of Sewers & Septic Tanks, they may be paid double the above wages.				

	(D) OTHER CONVEYANCE ITEMS			S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
78	1	Single bullock with driver and cart	Day	465	As per WR Dept. (S.No.6) Semi-Skilled
79	2	Bullock pair with driver	Day	516	
80	3	Bullock pair with driver and cart	Day	500	As per WR Dept. (S.No.5) Semi Skilled
81	4	Bullock pair with driver and cart with pneumatic tyres	Day	575	
82	5	Bullock pair driver and kapila	Day	deleted	
83	6	Nava with crew	Day	440	As per WR Dept. (S.No.3) Semi Skilled
84	7	Punt thundal	Day	385	
85	8	Punt lascar	Day	385	
	Note:	1) The wage should not be less than the minimum wages of schedule of employment, subject to out turn.			
		2) 25% extra over the corresponding labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by the concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under Greater Visakhapatnam Municipal Corporation and Vijayawada Municipal Corporation only.			

MATERIAL & WORK ITEM RATES

RATES OF MATERIALS & WORK ITEMS

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
		(A) STONE AND ROAD MATERIALS			
		ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING, BURNING, SPLITTING.			
1	22.a	For R.R Masonry Work (other than Granite, Dolomite and Trap)	1 cum	171.45	
2	b.i	For SS Revetment work 225 mm	1 cum	138.00	As per WR Dept. (S.No.3) of Miscellaneous items - Material other than covered under irrigation
3	b.ii	For SS Revetment work 300 mm	1 cum	156.00	As per WR Dept. (M 003 of Material) Material other than covered under irrigation items
4	b.iii	For SS Revetment work 450 mm	1 cum	148.55	
5	c	Jeddy Stone above 450 mm to 600 mm	1 cum	196.20	
6	d i	Laterite for revetment 225 mm	1 cum	129.50	
7	d ii	Laterite for revetment 300 mm	1 cum	151.43	
8	d iii	Granite for SS revetment 225 mm	1 cum	168.55	
9	d iv	Granite for SS revetment 300 mm	1 cum	163.80	
		Note:- Only when other granite is not available			
10	e	Laterite for masonry	1 cum	148.55	
11	f	Cyclopean stones above 0.2 cum	1 cum	278.10	
12	g	For R.R.Masonry works (granite, dolomite and trap variety)	1 cum	240.00	As per WR Dept. (M 148 of Material) Material other than covered under irrigation items
13		NOTE:- For items 22(a) to 22© and 22(g) add extra Rs /cum, wherever quarrying is done by blasting	1 cum	70.00	
		COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING FOR SS FIRST SORT WORKS			
14	23.a	Granite, Dolomite and trap	1 cum	274.30	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
15	23.b	For other varieties	1 cum	197.15	
16	27	Granite stone slabs for culverts, lintels and copings (3 faces dressed coarsed rubble masonry)	1 cum	1810.50	
17		NOTE: - For items 23(a), 23(b) and 27 add extra Rs. Per Cum, wherever quarrying is done by blasting	1 cum	82.00	
18	28.a	Bond stones (600 x 200 x 200 mm)	each	47.60	
19	b	Chainage stones and Centre line stones (750x150x150 mm)	each	47.60	
20	31	Demarcation Stones (900 x 150 x 150 mm)	each	85.70	
21	32.a	Guard Stones (1200 x 200 x 200 mm)	each	144.75	
22	B	Guide Stones (800 x 150 x 150 mm)	each	97.15	
23	C	Carving letters and figures in stone up to 100 mm size	each	9.50	
24	D	Carving letters and figures in stone above 100 mm size	each	10.50	
		HARD BROKEN STONE OF GRANITE, TRAP AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING			
25	33.a	- do - 6mm size (SS 5)	1 cum	506.40	As per WR Dept. (M 050 of Material) (excluding blasting charges of Rs.70/- and Machine crushing charges of 25%)
26	b	- do - 10mm size (SS 5)	1 cum	659.20	As per WR Dept. (M 051 of Material) (excluding blasting charges of Rs.70/- and Machine crushing charges of 25%)

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
27	c	- do - 12mm size (SS 5)	1 cum	782.40	As per WR Dept. (M 052 of Material) (excluding blasting charges of Rs.70/- and Machine crushing charges of 25%)
28	d	- do - 20mm size (SS 5)	1 cum	986.40	As per WR Dept. (M 053 of Material) (excluding blasting charges of Rs.70/- and Machine crushing charges of 25%)
29	e	- do - 25mm size (SS 5)	1 cum	947.20	As per WR Dept. (M 054 of Material) (excluding blasting charges of Rs.70/- and Machine crushing charges of 25%)
30	f	- do - 40mm size (SS 5)	1 cum	590.40	As per WR Dept. (M 055 of Material) (excluding blasting charges of Rs.70/- and Machine crushing charges of 25%)
31	g	- do - 50mm size (SS 5)	1 cum	434.30	
32	h	- do - 60mm size (SS 5)	1 cum	399.05	
33	i	- do - 65mm size (SS 5)	1 cum	360.95	
34	j	- do - 75mm size (SS 5)	1 cum	289.50	
35	k	- do - 75 to 100mm size (SS 5)	1 cum	236.20	
36		NOTE:- (1) Add extra Rs. /- per cum for items 33 (a) to 33 (k) if the metal is obtained by blasting	1 cum	70.00	
37		(2) Add 25% extra per cum if the metal is obtained by machine crushing excluding cost of blasting.	1 cum	25%	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
38		(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.	1 cum	9.90	
39		(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed, deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.	1 cum	17.00	
			1 cum	9.90	
		SOFT BROKEN STONE SCREENED AND FREE FROM DUST			
40	33.l	- do - 40 mm size (SS 5)	1 Cum	117.15	
41	33.m	- do - 50 mm size (SS 5)	1 Cum	105.70	
42	33.n	- do - 60 mm size (SS 5)	1 Cum	82.85	
43	33.o	- do - 65 mm size (SS 5)	1 Cum	74.30	
44	33.p	- do - 75 mm size (SS 5)	1 Cum	69.50	
		HARD BROKEN STONE OF GRANITE TRAP DOLERITE AND DOLAMITE FREE FROM DUST OBTAINED BY QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING (QUARTZITE AND BASALT WITH AGGREGATE IMPACT OF LESS THAN 20)			
45	33a	-do- 2.36 to 5 mm size (IRC&MORTH)	1 cum	293.35	
46	b	-do- 5 to 7mm size (IRC&MORTH)	1 cum	480.00	
47	c	-do- 9.5 to 11.2mm size (IRC&MORTH)	1 cum	624.75	
48	d	-do- 12mm to 14 mm size (IRC and MORTH)	1 cum	742.85	
49	e	-do- 19 mm to 22 mm size (IRC and MORTH)	1 cum	937.15	
50	f	-do- 25 mm to 27 mm size (IRC and MORTH)	1 cum	899.05	
51	g	-do- 40 mm to 45 mm size (IRC and MORTH)	1 cum	560.00	
52	h	-do- 50 mm to 55 mm size (IRC and MORTH)	1 cum	434.30	
53	i	-do- 60 mm to 63 mm size (IRC and MORTH)	1 cum	399.05	
54	j	-do- 65 mm size (IRC and MORTH)	1 cum	360.95	
55	k	-do- 75 mm size (IRC and MORTH)	1 cum	289.50	
56	l	NOTE:- Add extra Rs. /- per cum for items 33 (a) to 33 (j) if the metal is obtained by blasting	1 cum	70.00	As proposed by WR Dept.

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
57	2	Add 25% extra per cum if the metal is obtained by machine crushing excluding cost of blasting.	1 cum	25%	As proposed by WR Dept.
58	3	Deduct Rs. /- per cum if the metal or rubble is obtained from surface stones and boulders	1 cum	9.90	
59	4	Add Rs. /- per cum for selection of stones and boulders from excavated soil dumps for items 33 (a) to 33 (k), when this addition of Rs. /- per cum allowed deduction of Rs. /- per cum mentioned under note (3) above should invariably be made	1 cum	17.00 9.90	
		HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST			
60	33.q	- do - 10 mm size (SS 5)	1 Cum	367.60	
61		-do- 9.5 mm to 11.2 mm size (IRC and MORTH)	1 Cum	367.60	
62	r	- do - 12 mm size (SS 5)	1 Cum	344.75	
63		-do- 12mm to 14 mm size (IRC and MORTH)	1 Cum	344.75	
64	S	- do - 20 mm size (SS 5)	1 Cum	279.05	
65		-do- 19 mm to 22 mm size (IRC and MORTH)	1 Cum	279.05	
66	T	- do - 25 mm size (SS 5)	1 Cum	273.35	
67	U	- do - 40 mm size (SS 5)	1 Cum	161.90	
68		-do- 40 mm to 45 mm size (IRC and MORTH)	1 Cum	161.90	
69	V	- do - 50 mm size (SS 5)	1 Cum	142.85	
70		-do- 50 mm to 55 mm size (IRC and MORTH)	1 Cum	142.85	
71	33.w	- do - 65 mm size (SS 5)	1 Cum	135.25	
72		-do- 60 mm to 65 mm size (IRC and MORTH)	1 Cum	135.25	
73	X	- do - 75 mm size (SS 5)	1 Cum	111.45	
74		- do - 75 mm size (IRC &MORTH)	1 Cum	111.45	
75	Y	- do - 75 to 100 mm size (SS 5)	1 Cum	87.60	
76		- do - 75 to 100 mm (IRC& MORTH)	1 Cum	87.60	
		OTHER ITEMS			
77	33.z1	Laterite 40 to 75 mm (ring)	1 Cum	96.20	
78	z2	kankar, hard broken kankar 40 to 75 mm (ring)	1 Cum	71.45	
79	z3	Soling stone of 150 mm size of granite, trap and Dolomite varieties.	1 Cum	90.50	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
80		NOTE:- (1) Add extra for items to 33(z3) Rs /- Per cum, wherever quarrying is done by blasting. (2) Wherever controlled blasting is resorted to the Chief Engineer concerned shall approve the observed data in support of SS item No. 22 a to 22 c , 22g, 23	1 Cum	70.00	As proposed by WR Dept.
81	z4	Soling stone of 150 mm size other than granite variety	1 Cum	72.40	
82	z5	Soling Stone laterite, Kankar 150mm, surface stone	1 Cum	44.75	
83	z6	Field picked metal unbroken 20 mm size	1 Cum	58.10	
84	z7	- do - 25 mm size	1 Cum	43.80	
85	z8	- do - 40 mm size	1 Cum	50.50	
86	z9	- do - 50 mm size	1 Cum	43.80	
87	z10	- do - 60 mm size	1 Cum	38.10	
88	z11	- do - 80 mm size	1 Cum	33.35	
89		NOTE:- Add Rs. /- Per Cum for selection of stone and boulders from excavated spoil dumps for items 33 (Q) TO 33 Z, when this addition of Rs. /- per Cum is allowed, deduction of Rs. /- per Cum should invariably be made towards the metal or rubble if it is obtained from surface stone and boulders.		17.00	
90	34	Gravel	1 Cum	110.00	As per WR Dept. (M 008 of Material)
91	35 a	Quarry rubbish	1 Cum	84.75	
92	B	HBG Stone Chips 2.36mm and below	1 Cum	333.00	As per WR Dept. (Sl.No.67 of Material)
93	36.a	Fine aggregate / Sand (un-screened) for Concrete & Filtering items (excluding Seigniorage charges)	1 Cum	100	As per WR Dept. (Si. No. 27 of Material)
94	b.	Fine aggregate / Sand (unscreened) for filling (excluding Seigniorage charges)	1 cum	100	
95	c	Fine aggregate / Sand (screened) for Mortar, Plastering items and Sand blasting items (excluding Seigniorage charges) (Rs. 70/- is added towards screening charges)	1 Cum	182	As per WR Dept. (Si. No. 28 of Material)
96	37	Clay for puddle and masonry Items 38 (a) to 39 (h) As per local prevailing rates based on competitive quotations.	1 Cum	38.00	
		(C) LIME AND CEMENT			
97	40 to 41(c)			As per local prevailing rates based on competitive rates	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
98	42	Cement excluding cost of empty cement bags	1 MT	3882.00	Monthly rates will be communicated by the Govt
NOTE: (1) The rates are exclusive of GST 2) The price of cement will be reviewed and fixed on monthly basis and rates will be communicated separately.					
99	C	Grinding lime mortar or Surkhi mortar	1 Cum	95.25	
100	D	Shell lime slaked and screened	1 Cum	940.00	
101	E	White cement	1 Kg.	27.95	
102		(D) MORTARS			
103	43 to 45	Items 43 to 45			
		(E) METAL AND IRON WORKS			
104		Mild steel rods 6mm dia.	1 MT	Monthly rates communicated by the Govt	
105		Mild steel flats	1 MT		
106		Mild Steel, Structural Steel, I.e., Angles, Channels and I sections.	1 MT		
107		High Yield Strength Deformed Bars/TMT bars	1 MT		
108		Mild steel plates	1 MT		
		NOTE: (1) The rates are exclusive of GST 2) The prices of steel will be reviewed and fixed on monthly basis and rates will be communicated separately.			
		III RATES OF WORKS			
		(A) CLEARING SITE			
109	1.a	Clearing heavy Jungle	1 Sqm	3.20	
110	b	Clearing light Jungle	1 Sqm	2.80	
111	c	Clearing Scrub Jungle	1 Sqm	2.80	
112	d	Clearing Juliflora (Prosafis) jungle including up-rooting and removing of Juliflora stumps.	1 Sqm	4.40	
113	2.a.1	Cutting and removing Palmyrah trees including stacking of girth 30 to 100 cm.	Each	21.00	
114	a.2	- do - 100 to 200 cm.	Each	48.00	
115	2.b.1	Uprooting and removing Palmyrah stumps including stacking of girth 30 to 100 cm.	Each	51.00	
116	b.2	- do - 100 to 200 cm.	Each	53.00	
117	2.c.1	Cutting and removing date trees including stacking of girth 30 to 100 cm	Each	26.00	
118	c.2	- do - 100 to 200 cm	Each	39.00	
119	2.d.1	Uprooting and removing stumps of date trees including stacking of girth 30 to 100 cm.	Each	26.00	
120	d.2	- do - 100 to 200 cm	Each	33.00	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
121	2.e 1	Cutting and removing other kind of trees including stacking of girth 30 to 100 cm	Each	33.00	
122	e.2	- do - 100 to 200 cm	Each	51.00	
123	e.3	- do - above 200 cm	Each	83.00	
124	2.f.1	Uprooting and removing stumps of other kind of trees including stacking of girth 30 to 100 cm.	Each	26.00	
125	f.2	- do - 100 to 200 cm	Each	36.00	
126	f.3	- do - above 200 cm	Each	45.00	
127	3.a	Uprooting and clearing prickly pear jungle	1 Sqm	2.50	
128	b	- do - under 2.5 meters height including burning and burrying as directed.	1 Sqm	3.30	
129	c	- do - over 2.5 meters height including burning and burrying with an initital lead of conveyance	1 Sqm	3.90	
130	4.a	Removing of natchu, goobi, thooti etc., from drains, channels including clearance if not more than 1 metre depth of water with an initial lead of 10 metresand lift of 2 metres.	1 Sqm	2.10	
131	b.i	Clearing alchi, tilla	1 Sq.m	4.20	
132	b.ii	Removal of Jammu	1 Sq.m	3.60	
133	c.i	Removal of imponea, cornea	1 Sq.m	4.00	
134	c.ii	Removal of water hyacinth upto 30 cm thick.	1 Sqm	4.10	
135	c.iii	- do - more than 30 cm thick	1 Sq.m	5.50	
136	d	Removal of natchu, goobi, thooti etc., for every extra lead or lift over the initial lead or lift.	1 Sqm	1.50	
		(B) DISMANTLING			
	5	DISMANTLING, CLEARING AWAY MATERIALS USEFUL FOR REUSE.			
137	a.i	Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	65.60	
	7	Drilling holes in hard granite or sheet rock			
	a)	Manually (Hand)			
138	i)	20 mm dia meter	1 RM	136.00	
139	ii)	25 mm dia meter	1 RM	144.00	
140	iii)	36 mm dia meter	1 RM	166.00	
141	b)	Pneumatic Compressor			
142	i)	20 mm dia meter	1 RM	154.00	
143	ii)	25 mm dia meter	1 RM	167.00	
144	iii)	36 mm dia meter	1 RM	182.00	
	8	Grouting the holes with neat cement slurry excluding cost of steel			

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
145	i)	20 mm dia meter	1 RM	97.00	
146	ii)	25 mm dia meter	1 RM	122.00	
147	iii)	36 mm dia meter	1 RM	152.00	
		White Washing and Painting works			
148	A	White washing and colour banding for guard and guide stones including cost of materials	each	10.00	
149	B 1	Screening sand and gravel	1 cum	10.50	
150	B 2	Screening chips and metal	1 cum	17.60	
151	C	Removing and refixing Hectometre or Demarcation stones	each	12.65	
		(S) ROAD WORK ITEMS			
		PICKING OLD METALLED SURFACE TO DEPTH OF 40 TO 100 mm SPREADING OLD METAL AND NEW METAL SECTIONING INCLUDING EDGEBUNDS AND SUBGRADE ROLLING, SPREADING METAL INCLUDING BLINDAGE OF GRAVEL WATERING WITH AN INITIAL LEAD OF 2 HECTOMETERS AND HAND ROLLER (1.5 TO 2 TONNES) ROLLING ETC., INCLUDING BARRICADING, DIVERSION OF TRAFFIC AND WETTING THE NEW CONSOLIDATION FOR A FORTNIGHT COMPLETE			
		(For a compact thickness)			
	1 (i)	HARD METAL			
152	A	40 mm thickness	10 sqm	70.00	
153	B	50 mm thickness	10 sqm	74.00	
154	C	75 mm thickness	10 sqm	80.30	
155	D	100 mm thickness	10 sqm	87.00	
156	1 (ii)	(For compact thickness of soft metal)			
157	A	50 mm thickness	10 sqm	53.80	
158	B	75 mm thickness	10 sqm	63.90	
159	C	100 mm thickness	10 sqm	70.10	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
	5	Picking old metallised surface to a depth of 40 to 100 mm and spreading metal including watering with an initial lead of 2 Hectometers and rolling with power rollers watering and spreading gravel for blindage and power roller rolling including hire charges of power roller(8 to 10 T) barricading and diversion of traffic and wetting the new consolidation for a fortnight(for compacted thickness of)			
		HARD METAL			
160	5 (a)	40 mm thick ness	10 sqm	185.00	
161	(b)	50 mm thick ness	10 sqm	210.00	
162	(c)	75 mm thick ness	10 sqm	231.00	
163	(d)	100 mm thick ness	10 sqm	248.80	
164	(e)	150 mm thick excluding hire charges	10 sqm	445.40	
165		Gelatin(For MORTH data, for works of state & national high ways only)	Per Kg	57.00	As per WR Dept. (M 104 of Material) other than covered under irrigation
166		Electric Detonators(For MORTH data, for works of state & national high ways only)	each	9.00	As per WR Dept. (Si. No. 21 of Materials of WR Dept.)
167		Hot applied thermoplastic compound(For MORTH data, for works of State & National high ways only)	Per litre	Rate as per local competitive quotations	As per WR Dept. (M 118 of Material other than covered under Irrigation Items)
168		Reflectionising glass beads of 2 mm thick(For MORTH data, for works of State & National high ways only)	Per Kg		deleted
169		Road marking paint confirming to IS 164(For MORTH data, for works of State & National high ways only)	Per Kg	152.15	
170	n	Labour charges for laying filters with coarse aggregate.	1 cum	55.30	
171	o	Labour charges for laying filter with sand.	1 cum	30.70	
172		Fly Ash	1 cum		deleted

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2018-19 in Rs.	Remarks
1	2	3	4	5	6
173		Binding Wire	1 Kg	53.00	As per WR Dept. (M 072 of Material) other than covered under irrigation items
174		Jute rope	Mtr	8.35	
175		De bonding strips	Mtr	8.55	
176		Selent	Ltr	53.95	
177		Poly sheet 125 microns	1 sqm	15.25	
178		Rural water rate	1 kl	77.00	

HIRE CHARGES OF PLANT AND MACHINERY

**HIRE CHARGES OF PLANT& MACHNIERY FOR
ROAD & BRIDGE WORKS FOR THE YEAR 2018-19**

Sl. No.	Description		Unit	S o Rate for 2018-19 in Rs.	Remarks
	Machine	Activity			
1	2	3	4	5	6
1	Dozer(D 80)	Spreading	Per Hour	2454.60	As per WR Dept. (S.No.8)
		Cutting			
		Cleaning			
2	Dozer (D50)	Spreading Cutting Cleaning	Per hour	1546.80	
3	Mortor Grader	Clearing	Per Hour	3020.40	
		Spreading			
		GSB			
		WMM			
4	Hydraulic Excavator	Soil Ordinary	Per Hour	2791.60	As per WR Dept. (S.No.52)
		Soil Marshy			
		Soil unsuitable			
5	Front end loader	Soil loading	Per Hour	1594.70	
		Aggregate loading	Per Hour		
6	Tipper- 5.5 Cum	Transportation of soil, GSB,WMM, Hot mix etc	Per Hour	950.30	As per WR Dept. (S.No.54)
7	Vibratory roller 8 tonne	Earth/Soil, GSB,	Per Hour	2736.20	As per WR Dept. (S.No.62)
		WMM			
8	Smooth wheeled roller 8 tonne	Soil compaction ,BM compaction	Per Hour	1329.90	As per WR dept. (S.No.50)
9	Water tanker 8 Kilolitre	Water transport	Per Hour	945.80	As per WR Dept. (S.No.64)
10	Water tanker 6 Kilolitre	Water transport	Per Hour	655.20	
11	Tractor	Pulling	Per Hour	413.60	
12	Tractor with rotavator	GSB mixing @ site	Per Hour	423.60	
13	Tractor with ripper attachment	Scarifying	Per Hour	423.60	
14	Air Compressor 5 cmm(electric)	General purpose	Per Hour	556.50	As per WR Dept. (S.No.2)
15	Wet mix plant 60 TPH	Wet mix	Per Hour	1679.70	
16	Mechanical broom Hydraulic	Surface cleaning	Per Hour	381.80	
17	Bitumen Pressure Distributor	Applying bitumen tack coat	Per Hour	1527.10	
18	Emulsion Pressure Distributor	Applying emulsion tack coat	Per Hour	875.60	
19	Hot mix Plant – 120 TPH capacity	DBM/BM/SDC	Per Hour	28708.00	
		/Premix			
20	Hot mix Plant – 100 TPH capacity	DBM/BM/SDC	Per Hour	24636.00	
		/Premix			

Sl. No.	Description		Unit	S o Rate for 2018-19 in Rs.	Remarks
	Machine	Activity			
1	2	3	4	5	6
21	Hot mix Plant – 60 TPH capacity	DBM/BM/SDC /Premix	Per Hour	22092.00	
22	Hot mix Plant – 40 to 60 TPH capacity	DBM/BM/SDC /Premix	Per Hour	19546.00	
23	Paver Finisher Hydrostatic with sensor control 100 TPH	DBM/BM/SDC /Premix	Per Hour	3115.20	
24	Paver finisher Mechanical 100	Paving of WMM, paving of DLC	Per Hour	2290.60	
25	Hydraulic Chip Spreader	Surface dressing	Per Hour	2743.70	
26	Tandem Road roller	Rolling of Asphaltic surface	Per Hour	1856.50	
27	Pneumatic Road roller	Rolling of Asphaltic surface	Per Hour	1515.60	
28	Pot-Hole repair machine	Repair of pot-holes	Per Hour	903.00	
29	Bitumen boiler oil fired	Bitumen Spraying	Per Hour	223.00	
30	GSB Plant 50 Cum	Producing GSB	Per Hour	1279.70	
31	Mastic Cooker	Mastic wearing coat	Per Hour	79.50	
32	Batching and Mixing Plant (a) 30 Cum capacity	Concrete mixing	Per Hour	1310.90	
	(b) 15 - 20 Cum capacity	Concrete mixing	Per Hour	1083.10	As per WR Dept. (S.No.10)
33	Transit mixer	Transportation of concrete mix	Per Hour	2071.70	As per WR Dept. (S.No.1)
34	Concrete pump of 45 and 30 cum	Pumping of Concrete	Per Hour	1508.80	As per WR Dept. (S.No.70)
35	Cranes				
	(a) 80 tonnes	Lifting purpose	Per Hour	1311.20	
	(b) 35 tonnes			885.70	
	(c) 3 tonnes			429.60	
	(d)Crane with grab bucket 0.75 cum	Well foundation	Per Hour	2308.90	
	(e)Crane with grab bucket 1 cum	Well foundation	Per Hour	3775.80	
36	Concrete bucket 1.50 cum	For pouring concrete	Per Hour	12.90	As per WR Dept. (S.No.14)
37	Kerb casting machine	Kerb making	Per Hour	671.90	
38	Concrete mixer	Concrete mixing	Per Hour	525.50	As per WR Dept. (S.No.18)
	(a)0.28 cum				
	(b) 1.0 cum	Concrete mixing	Per Hour	661.50	

Sl. No.	Description		Unit	S o Rate for 2018-19 in Rs.	Remarks
	Machine	Activity			
1	2	3	4	5	6
39	Piling rig with bantonite pump	0.75 m dia to 1.20 m dia boring attachment	Per Hour	6131.70	
40	Concrete paver finisher with 40 HP motor	Paving of concrete surface	Per Hour	3247.20	
41	Integrated stone crusher	Crushing of spalls 100 TPH	Per Hour	9755.20	
		Crushing of spalls 200 TPH	Per Hour	20570.00	
42	Pre stressing jack with pump and access	Stressing of steel wires/ stands	Per Hour	157.80	
43	Generator				
	250 KVA	Generation of electric energy	per hour	2162.60	
	125 KVA		per hour	1543.10	
	100 KVA		per hour	1316.30	
	30 KVA		per hour	1032.00	As per WR Dept. (S.No.23)
44	Pneumatic sinking of Plants	Pneumatic sinking of wells	Per K.m.	5701.00	
45	Truck 5.5 cum per 10 tonnes	Material transport	Per her	923.70	As per WR Dept. (S.No.58)
46	Road marking Machine	Road marking	Per Hour	135.50	
47	Mobile slurry seal equipment	Mixing and laying slurry seal	Per Hour	1261.40	
48	Plate compacter	For compacting in medians	Per Hour	59.10	
49	Drilling equipment	For drilling	Per Hour	880.90	As per WR Dept. (S.No.22)
Note: The above hire charges of Machinery & Plant includes crew, oils, conveyance of Machinery to site and all other incidental charges					

PART-IV
PUBLIC HEALTH ITEMS

PUBLIC HEALTH ITEMS			
Sl. No.	Description	Unit	SoR for 2018-19
1	2	3	4
1	RATES OF LABOUR (SKILLED WORKMEN)		
	1. Caulker	Per Day	As per Labour rates of SoR
	2. Plumber 1st Class	Per Day	
	3. Plumber 2nd Class	Per Day	
	4. Sewer Cleaner	Per Day	
	5. Well Sinker	Per Day	
	6. Pipe line Fitter 1st Class	Per Day	
	7. Pipe line Fitter 2nd Class	Per Day	
	8. Pump Operator	Per Day	
	9. Bore Mechanic	Per Day	
	10. Light Vehicle Driver	Per Day	
	Note: The rate at relevant item in common SoR is applicable for occasional employment.		
2	RATES FOR EARTH WORK :		
a.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is more than 1.5 times the width.		To follow the relevant items of Irrigation work items as per AP. Standard data
b.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is less than 1.5 times the width.		
c.	Earth work excavation in all types soils for open trenches, for valve pits, inspection chambers, etc.		
3. a.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is more than 1.5 times the width, in places where there is no habitation.		
b.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
c.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is 1.5 times or more than the width.		
d.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is less than 1.5 times the width.		

e.	Cutting rock for works other than pipe lines trenches by hammers, knuckles and chisels including stacking.		
f.	For controlled blasting at restricted places		
	NOTE: - Rock should be measured in solids. In case it is not possible, stacks should be made in which case 40% for voids to be deducted from the stack measurements.		
4	Loading or unloading materials such as C.I. Pipes, PVC Pipes, AC Pressure Pipes, DI Pipes, SW Pipes, PVC Pipes, A.C/Specials less than 300 mm dia. Up to 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per AP. Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
d.	P.V.C. Pipes and fittings	Per Tonne	
5	Loading or unloading materials such as C.I. Pipes, DI pipes, SW pipes, AC pressure pipes & fittings/ specials from 300 mm to 600 mm dia. Up to 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per AP. Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
6	Loading or unloading materials such as C.I. Pipes, DI pipes, PVC pipes, AC pipes less than 300 mm dia., above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per AP. Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	P.V.C. Pipes and fittings	Per Tonne	
7	Loading or unloading materials such as C.I. Pipes, DI pipes, AC pipes from 300 mm to 600 mm above 4 m in length including stacking.		To follow as per AP. Standard data
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	
b.	A.C. Pipes & Specials	Per Tonne	
	Note:- For loading and unloading the above materials at Railway Stations, the rates may be adopted based on the competitive quotations or the hummable charges if prevailing.		
8. a.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with s/s ends carefully into trenches and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply (Ref to specifications. BIS No.3114/1994)		To follow as per AP. Standard data
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia.	Per Meter	

PUBLIC HEALTH ITEMS			
Sl. No.	Description	Unit	SoR rates for 2018-19
1	2	3	4
8. b.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with flanged ends carefully into trench and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply. (Reference to specifications. BIS No.3114/1994)		
	DIAMETER OF PIPE/Fittings in mm :		To follow as per AP. Standard data
	80mm to 750mm dia.		
	800	Per Meter	624
	900	Per Meter	811
	1000	Per Meter	1054
	1100	Per Meter	1298
	1200	Per Meter	1543
9. a.	Jointing CI /DI pipes & fittings with s/s ends including cost of pig lead, Spun yarn and sundries such as cost of fuel for melting lead, filling with water with lead up to 500m and testing to required pressure complete. (Reference to specifications. BIS No.3114/94/12288:1997)		
	DIAMETER OF PIPE/Fittings in mm :		To follow as per AP. Standard data
	80mm to 800mm		
	900	Each Joint	16304
	1000	Each Joint	18215
	1100	Each Joint	20123
	1200	Each Joint	22033
9. b.	Jointing C.I., D.I. pipes and fittings with rubber gasket (push-on-joint),excluding the cost of the gasket but including all sundries filling with water, with a water lead up to 500m and testing to required pressure, etc. complete (Reference to specifications IS 3114/1994/12888/1997)		
	Diameter of Pipe/Fittings in mm :		To follow as per AP. Standard data
	80mm to 1000mm dia.	Each Joint	

10	Jointing CI pipes, fittings and valves with flanged ends including cost of jointing materials such as bolts, rubber insertion, white lead including filling with water, with lead up to 500 meters and testing to required pressure complete. (Reference to specifications. BIS No.3114/1994.)		
	DIAMETER OF PIPE/Fittings/ valve in mm :		
	80mm to 750mm dia.	Each Joint	To follow as per AP. Standard data
	800	Each Joint	6836
	900	Each Joint	8040
	1000	Each Joint	9259
	1100	Each Joint	10508
	1200	Each Joint	11802
11a	Lowering the RCC plain ended pipes carefully into the trench laying them true to alignment and gradient, jointing RCC pipes with cement joints including curing, the cost of jointing materials i.e., Cement Mortar (1:1.5), hemp yarn etc., and testing including filling with water with a water lead up to 500 Meters excluding cost of rubber rings as per BIS No.783/85.		
	per every 25 mm dia.	Per Meter	24
11b	Lowering the RCC S/S pipes carefully into the readymade trenches laying them true to alignment and gradient, jointing with rubber rings and testing including filling with water with a water lead up to 500 meters including cost of rubber rings as per BIS No. 783/1985		
	per every 25 mm dia.	Per Meter	
	80mm to 600mm		To follow as per AP. Standard data
	700		377
	800		453
	900		543
	1000		651
12	Lowering and Jointing G.I. pipes and specials / fittings including excavation of trench of 0.5m width and 0.50 m depth in all soils except rock requiring blasting and refilling trenches after laying and jointing pipes and also including cost of jointing materials but excluding the cost of pipes. Reference to specifications. BIS No.783/85		
a	G.I. Pipes :Dia. in mm		To follow

	15mm to 150mm	Per Meter	as per AP. Standard data
12-b	Laying, jointing of PVC/HDPE pipes as per BIS No.7634 part-III/75 for PVC and BIS No.7634 part-II/75 for HDPE pipes including trench excavation and refilling.		
	DIA in mm		
	50	Per Meter	36
	40	Per Meter	36
	32	Per Meter	36
	25	Per Meter	33
	20	Per Meter	31
	NOTE: - (i) The above rates are applicable for the works in District only.		
	(ii) If the depth of excavation is more than 0.5 m separate rates to be worked out.		
13	Lowering and laying in readymade trench true to alignment and gradient, jointing, and testing of Stone ware pipes including cost of jointing material such as cement mortar (1:1) proportion and hemp yarn but excluding cost and conveyance of pipe. (Reference to specifications BIS No. 6530/72)		
	Dia. of Pipes in mm		To follow as per AP. Standard data
	100mm to 450mm	Per Meter	
14	Lowering, Laying, Jointing and Testing to hydraulic test pressure including cost of water with minimum water lead of 500m for UPVC pressure pipes in readymade trenches to alignment and gradient including all sundries but excluding cost & conveyance of pipes from source of supply and jointing material as per BIS No: 7634 part-III-1975.		
	Dia. Of pipe	Per Meter	To follow as per AP. Standard data
	63 to 315mm		
15	Laying and jointing of HDPE pipes by butt fusion welding as per IS: 7634 – part-II/1975 as amended from time to time to the alignment and gradient and testing the pipeline to the required pressure.		
	Outer Dia. of pipes in MM		
	63 to 355 mm dia.		To follow as per AP. Standard data
	400		255

	450		282
16	Lowering, keeping in position and fixing D.I. sluice valves (with cap / with hand wheel & Reflex valves) excluding cost of bolts, nuts, rubber insertion, sluice valve and tail pieces		
	<u>Dia. of Valve in mm.</u>		To follow as per AP. Standard data
	80mm to 600mm	Each	
17	Labour charges for fixing Air valves including boring the mains and threading the bore fixing nipple etc., complete.		
	<u>Dia. of Air valve in mm.</u>		
	25	Each	To follow as per A.P. Standard data
	40	Each	
	50	Each	195
	65	Each	207
	80	Each	224
	100	Each	266
	125	Each	414
	150	Each	453
18	Labour charges for fixing Kinetic Air Valves with isolating Sluice valves, Double Air valves/ Air Cushion valve excluding cost of jointing materials such as bolts, nuts and rubber insertions etc., complete.		
	<u>Dia. of Air valve in mm.</u>		
	25	Each	184
	40	Each	208
	50(Double Air valves)	Each	221
	65	Each	237
	80	Each	259
	100	Each	301
	125	Each	471
	150	Each	516
19	Uprooting C.I. / DI Pipes by melting the lead, loosening the joints, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earth work excavation and refilling.		
	80mm to 600mm	Per Meter	To follow as per AP. Standard data
20	Uprooting of RCC pipes including breaking the collars, loosening the joint, separating the pipes, hoisting and keeping within a lead of 10 m but excluding earthwork		

	excavation and refilling.		
	100mm to 300mm	Per Meter	To follow as per AP. Standard data
21	Removing old G.I. pipes and specials / fittings and cleaning, scraping the pipes, hoisting and keeping within 50m lead but excluding earth work excavation of trenches and refilling.		
	Dia. of Pipes in mm		
	15mm to 50mm	Per Meter	To follow as per AP. Standard data
22	Cutting C.I./ DI Pipes without water in mains Dia. of pipes in mm.		
	Dia. of Pipes in mm		
	80mm to 600mm	Each cut	To follow as per AP. Standard data
	680	Each cut	572
	700	Each cut	587
	750	Each cut	633
	800	Each cut	673
	900	Each cut	756
	1000	Each cut	840
	1100	Each cut	926
	1200	Each cut	1010
23	Cutting A.C. Pipes without water in mains Dia. of pipes in mm.		
	Dia. of Pipes in mm		
	80	Each cut	37
	100	Each cut	37
	125	Each cut	37
	150	Each cut	37
	200	Each cut	39
	250	Each cut	64
	300	Each cut	64
	350	Each cut	79
	400	Each cut	87
	450	Each cut	108
	500	Each cut	120

	600	Each cut	132
24	Drilling and tapping CI/ DI / GI Main and fixing brass screw down ferrule and plug.		
	10 mm to 20mm	Each Tapping	To follow as per AP. Standard data
	25 mm to 40mm	Each Tapping	
25	Cutting road surface including stacking of excavated materials for pipe line trench work.		
	a) Cutting open B.T. road surface (as well as asphalt concrete up to 75 mm thick) including water bound macadam	10 Sqm	722
	b) Cutting open C.C. road surface with concrete saw cutter and removal with Breaker	1 Cum	2204
	c) Cutting open water bound macadam road including soiling	1 Cum	246
26	Bailing out water.(For PH item)		
	a) Bailing out water from the pipe line trenches with oil engine driven pump sets, including hire charges, fuel charges and wages for Driver and Helper upto 5HP capacity pumps.	HP/Hour	64
	b) Bailing out water from the pipe line trenches with Electric Driven pump set including hire charges, current charges and wages for Driver and Helper upto 5HP capacity pumps.	HP/Hour	45
	c) For capacity of Pumps more than 5HP		
	A. Water lifting charges using Electrical driven pump		
	i. per hphr rate(including contractors profit and overhead charges of 13.615%	Rs.10.24/-	Per hphr
	ii. Other expenses in terms of Mazdoor, pump operator and pipe laying and dismantling(including contractors profit and overhead charges of 13.615%) per hr	Rs.166.78/-	Per hr
	Total hire charges of Electrically driven dewatering pump per hour	= (10.24xhp capacity)+166.78	Per hr
	B. Water lifting charges using Diesel driven pump		
	i. per hphr rate(including contractors profit and overhead charges of 13.615%	Rs.25.51/-	Per hphr
	ii. Other expenses in terms of Mazdoor, pump operator and pipe laying and dismantling(including contractors profit and overhead charges of 13.615%) per hr	Rs.201.55/-	Per hr
	Total hire charges of Diesel driven dewatering pump per hour	= (25.51xhp capacity)+201.55	Per hr
	NOTE:- The rate is payable on the total H.P. hours ignoring fractions less than 0.5 HP hour and rounding off 0.5 HP hour or more to the next higher integer.		
27	Shoring and strutting of trenches for water and sewer main		

	a) Single Staging from (0 to 2.5 Mts.)	1 Sqm of Shoring area	To follow as per AP. Standard data
	b) Double staging from (2.5 m to 4.5 Mts.)	1 Sqm of Shoring area	
28	Barricading, hoarding, lighting and watching etc., for water supply and sewerage works for trenches.	1 RMT	To follow as per AP. Standard data
29	Excavation of trenches for infiltration galleries, siphon lines and connecting mains in all soils under water including all leads, lifts, shoring, strutting, bailing out water and removal of shoring and strutting materials, after completion of pipe line work.		
	a) 0 to 1 m deep under water.	10 Cum	12838
	b) 1 to 2 m deep under water.	10 Cum	18389
	c) 2 to 5 m deep under water.	10 Cum	27601
	d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	10 Cum	5273
	NOTE:- The above rates do not include rock requiring blasting or chiseling		
30	Laying and jointing <u>perforated RCC pipes</u> inclusive of bailing out water and jointing with cement fillets and all other incidental charges for infiltration gallery inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding cost of perforated pipes and collars.	Per Meter	40
	Per every 25 mm dia.		
31	Centering and scaffolding charges for RCC members including all materials and labour charges for forming and dismantling.		
a)	for R C C Elevated Service Reservoir of staging up to 15 Meter below L W L.	One Sqm of Centering area	
	1) Slabs for thickness (150 mm to 300 mm)		4028
	2) Slabs for thickness above 300 mm		extra for every 50mm thickness increase Rs.473/-
	3) Side walls curved surfaces. (rate is for both sides centering)		3044
	4) Side wall straight surfaces. (rate is for both sides centering)		2708
	5) Dome.		3300
	6) Roof Slab.		1846
	7) Column braces and beams		1359
	8) Circular braces, ring beams & circular column.		1491

	Note: - For RCC ELSR of staging above 15 m, the % increase in these rates shall be as follows. 15-18 m ---- 9% 18-21m --- 15% 21-24 m --- 21% 24 m -27m --27% above27m --- 30%		
	Note: The Centering charges for item No's.3 & 4 are for both the faces of the respective numbers. The measurement of centering charges shall be in "Sqm" for one face only and the centering charges given are for two faces of centering.		
b)	For Ground level works :-		
	1) Slabs	1 Sqm	To follow as per AP. Standard data
	2) Beams & Lintels	1 Cum	
	3) Sun shades	1 Sqm	
	4-a) RCC vertical walls of plane surface (rate is for both sides centering) including open drains	1 Sqm of centering area	1000/Sqm
	4-b) VCC vertical walls of plane surface (rate is for both sides centering) including open drains	1 Sqm of centering area	980/ Sqm
	5) RCC vertical walls of circular faces (rate is for both sides centering)	1 Sqm of centering area	1270/ Sqm
	Note: The Centering charges for item No's 4 & 5 are for both the faces of the respective numbers. The measurement of centering charges shall be in "Sqm" for one face only and the centering charges given are for two faces of centering.		
32	Lift or delift of materials :		
	a) Lifting of cement concrete for RCC elevated reservoir. For every 1m height or part thereof over the initial lift of 3 m	1 Cum	161
	b) Delifting the materials such as stones, concrete etc., for concrete below ground level for construction of masonry ground level reservoirs, construction of ground level reservoirs, inspection wells, test wells and sump wells etc., for every 1 m depth or part there of beyond the initial depth of 3 meters from ground level.	1 Cum	50
39 (a)	Extra allowance for isolated scattered works viz., valve pits / chambers, public fountains, meter pits and manholes, delivery cistern etc., complete.	Each	30% extra over the cost of chamber.
(b)	Repairs to the existing mains, interconnections, replacement of valves/specials etc., including the cutting, jointing, bailing out of water, drying, earth work excavation etc., complete.		100% extra over the cost of work
40	Removal of wet silt and sludge by manual means from sullage drains with aid of baskets and vessels.	10 Cum	2485
41	Well sinking in sandy and other loose soils under water either by manual labour, divers, or dredgers, weighting the top of staining to assist sinking etc., including		

	dewatering and other incidental charges such as hire charges for mechanical equipment etc.,		
	Up to 2 m below GL/m	Per meter	To adopt as per Standard data
	From 2 to 4 m below GL/m	Per meter	
	From 4 to 6 m below GL/m	Per meter	
	From 6 to 8 m below GL/m	Per meter	
	From 8 to 10 m below GL/m	Per meter	
42	Sinking in Hard strata other than rock but in soils like limestone, gravel, clay under water including, pumping dewatering, hire charges for mechanical equipment etc., complete.		Observed Data
43	Rates for OHSRs/ELSRs including fixtures with a staging of 15 m, without Seismic analysis.		
a	500 Kilo liters	Per liter	18.20
b	1000 Kilo liters	Per liter	15.12
c	1500 Kilo liters	Per liter	13.63
d	2000 Kilo liters	Per liter	11.87
e	2500 Kilo liters	Per liter	11.12
	1) The above rates are arrived with base rate of Cement Rs.3882/- per MT & Steel Rs 41300/- per MT (Bo CE rates for the month of March 2018.)		
	2) All concrete components shall be designed with M30 Design Mix proportion.		
	3) For intermediate capacities proportional rates shall be adopted.		
	4) The foundations shall be designed for Annular Raft Footings. The above rates are applicable for Elevated Level Services Reservoirs / OHSRs for <u>SBC of 15 T/Sqm.</u>		
	a) For every decrease of 2.50 T/Sqm of SBC, the rate shall be increased by <u>2.50% on basic rate.</u>		
	b) For every increase of 2.5 T/Sqm of SBC, the rate shall be decreased by <u>1.0% on basic rate up to 20 T/Sqm</u>		
	c) For SBC below 10T/Sqm , solid raft shall be provided and for solid raft the rate shall be increased by <u>10% on basic rate.</u>		
	5) For staging less than 15 m, the rate shall be decreased by Rs.0.05 paisa on basic rate per liter per every Meter decrease in staging.		
	6) For staging above 15 m, the rate shall be increased by Rs.0.10 paisa on basic rate per liter per every Meter additional staging.		
	7) The above rates shall be increased / decreased due to increase/decrease in the cost of cement by Basic rate x $\{(R_c-3882)/3882\} \times 0.07$ R_c = Rate of Cement (Rs per MT) at the time of preparation of estimate.		
	8) The above rates shall be increased / decreased due to increase/decrease in the cost of Steel by Basic rate x $\{(R_s-41300)/41300\} \times 0.2$ R_s = Rate of Steel (Rs per MT) at the time of preparation of estimate.		
	9) a) Rate inclusive of three coats of epoxy paint Food Grade of best quality to inner surface of the Reservoir including roof.		

	b)The rate inclusive of 2 coats of weather proof emulsion painting for external surfaces, lettering, all required fixtures, Pipes, Pipe specials, valves of DI material, Valve chambers etc., for pipe connections including cost of pipes, specials and valves as per departmental designs and drawings.
	10) For tribal/Agency / Rural area, the above rates as arrived up to shall be increased by 10%.
	11) The above rates adopted for a wind pressure up to "250 kg/Sqm". For every 100 kg/Sqm decrease in wind pressure, the rate shall be decreased by 5%
	12) a) The Basic rate is adopted by considering the design for Seismic forces for Zone- II only of seismic zones.
	(b) The basic rates shall be increased by 15 % for Zone-III of seismic zones.
	13-(a). The ELSR/OHSR shall be designed with minimum of two rows of columns for capacities above 500 KL & up to 1000KL.
	13-(b). The ELSR/OHSR shall be designed with minimum of three rows of columns for capacities above 1000KL.
	14. The shaft type staging with slip form can also be provided with proper approval from competent authority without any additional cost.
	15) The basic rate is inclusive of following <u>Fixtures</u>
	i) Pipe connections & Specials with D.I materials
	(a) All pipe connections for Inlet, Out let, Over Flow, Scour pipes shall be provided with D/F DI material. (b) The Valves for above pipe connections also shall be of DI material of PN 16 duty confirming to the specification of SoR item No.28 (c) All specials such as Bends, Tees, Reducers, Duck foot Bends, Bell mouths etc., Shall be of DI material.
	II) The sizes of the verticals for ELSR/OHSR shall be:
	a) For 500 KL to 750 KI ELSRs Inlet Pipe - 300mm dia. Out let Pipe - 350mm dia. DI valves – 2 No's Over Flow pipe - 350m dia. Scour Pipe - 200mm dia.
	b) For 800 KL to 1500 KI ELSRs Inlet Pipe - 400mm dia. Out let Pipe - 450mm dia. DI valves – 2 No's Over Flow pipe - 450m dia. Scour Pipe - 200mm dia.
	c) For above 1500 KL to 2500 KI ELSRs Inlet Pipe - 400mm dia. Out let Pipe - 500mm dia. DI valves – 2 No's Over Flow pipe - 500m dia. Scour Pipe - 200mm dia.

	(iii) Manhole Frames & Covers
	a) All man hole Frames & Covers shall be made of CI/DI materials with min. size of 0.60mX 0.60m - For Roof & Valve Chambers.
	iv) CI/D.I Double Swan neck ventilators (min. of 150mm dia.) shall be provided in top dome and slab with mosquito/fly proof nets - 4Nos.
	v) RCC Finial ventilator with fly/bird protection with GI mesh - 1 No.
	vi) RCC precast ladders of 0.60 m width - 2 Nos.
	vii) RCC dog legged stair case of 1.00 m flight width and 1.20 m landing width R.C.C hand railing of 1.0 m height – 1 No
	viii) The staircase shall be enclosed with brick masonry walls on three sides and collapsible MS gate on front side up to 1 st brace level, to prevent unauthorized entry.
	ix) Construction of R.C.C valve chambers as per Standard Drawings with RCC cover slab fixed with CI/DI manhole Frame & Cover with lock and Key arrangement. The Mix shall not be less than VRCC M 20 grade with 150mm thick side walls, 150mm thick top slab, 150mm thick base slab over base course of 100mm thick (1:4:8) prop.
	x) Balcony of 1.00 m width at floor slab level / middle ring beam level by using Stainless Steel pipe of grade 304 hand railing up to 1.20 m height, with top railing of 40mm dia. pipe & middle railing of 25mm dia. and verticals with 40mm dia. at an interval not more than of 1.00m c/c.
	xi) Water Level Indicator of reputed make – Digital type (1 No) and Conventional type (1 No)
	xii) Lightening Arrestor with all its accessories complete including earthing, with relevant IS Codes - 1 No.
	xiii) <u>Compound wall</u> : Construction of compound wall including ornamental M.S.Gate of size 3.0 X 2.40m is included in the basic rate of ELSRs. Length of compound wall hall is minimum of 150m. Min. height of the compound wall shall be 1.80m above plinth and thickness 230mm in brick masonry in CM (1:6).The compound wall shall be constructed including earth work excavation in all types of soils for plinth beam of 230mm X 300mm and 0.75X0.75X1.20m size for column footing portions. The footings shall be of 0.75X0.75X0.25m in VRCC M20 grade and constructed over a C.C (1:4:8) prop bed of 100mm thick. The columns shall be of 230X230 mm in size with VRCC M20 grade at 3.00m c/c spacing, having depth of 1.20m below ground level and height of 2.00m above GL. The plinth beam of size of 230X300 mm shall be constructed in VRCC M20 grade at Ground level, over a bed of CC(1:4:8)-100mmthick. 450X450mm size columns in M20 grade shall be constructed for gate pillars. All the materials shall be followed as per the standards.
	Tie beam shall be provided above the brick work with 230X200mm size, fixed with MS angular of 25mm X 25mm X 4mm in "Y" shape to height of 0.60m, with embedded length of 150mm in concrete. The barbed wire fencing with 3 ply of 18 gauges shall be stretched in 4 rows (2x2). Plastering shall be done with 16mm thick in two coats i.e., base coat 12mm thick in CM(1:6)prop and 4mm thick 2nd coat CM(1:4) prop on both sides of brick work.
	Snowcem paint in two coats shall be provided for both sides of wall. The M.S ornamental gate as per the approved drawings shall be provided with minimum of 3.60mts width and 2.40mts height with enamel paint. Yard lighting shall be arranged on four corners of compound wall. If the length of the wall is increased/decreased

	<p>Note:-For every 1m increase/decrease in length of compound wall the increase/decrease in basic rates of ELSRs of the capacities from 500KL to 2500KL shall be as follows.:</p> <p>i)500 KL : 0.086%</p> <p>ii)1000 KL : 0.047%</p> <p>iii)1500 KL : 0.034%</p> <p>iv)2000 KL : 0.026%</p> <p>v)2500 KL : 0.022 %</p> <p>For intermediate capacities, interpolated percentages shall be adopted.</p>		
	<p>xiv) Staff Quarter shall be constructed for a minimum plinth area of 40 Sqm with the following specification: RCC framed structure with concrete grade not less than M20 design mix at the locations specified by the department at the time of execution with veranda, hall, bed room, kitchen and bath &W/C with floor area of 40.00sqmts excluding balconies and staircases.</p>		
	<p>MS hollow door frame with cold rolled processed steel sheet 1.25mm thick bright CRCA conforming to IS 4351/76, Flush door shutters with solid bond wood bond board doors shall be provided. N.C.L. Windows centre fixed both sides open able shutter window 1.35 X 1.35mts outer frame section 48 x50mm shutter frame section with a size of 48 X20 mm mullion section of size 48 X 50mm fixed beading section of 12 X 12 mm shall be provided. Flooring with polished Kadapa stone shall be provided. Walls shall be provided with snowcem paint in two coats over primary coat. Electrical and water supply arrangement shall be provided as directed by dept officer. Water Storage tank made with plastic/polymer material of reputed make with necessary out let and inlet connection pipes shall provided. Septic tank for 5 users shall be provided.</p>		
44	Rates for OHSRs/ELSRs including fixtures with a staging of 10 m without Seismic analysis.		Rs/liter
a	Up to 10,000 Liters capacity	Per liter	56.10
b	15,000 Liters capacity	Per liter	41.90
c	20,000 Liters capacity	Per liter	37.90
d	40,000 Liters capacity	Per liter	32.13
e	60,000 Liters capacity	Per liter	24.35
f	1,00,000 Liters capacity	Per liter	22.47
g	2,00,000 Liters capacity	Per liter	19.64
h	3,00,000 Liters capacity	Per liter	18.48
i	4,00,000 Liters capacity	Per liter	16.28
j	4,50,000 Liters capacity	Per liter	14.07
	NOTE: -1). All concrete members shall be designed with M30 grade design mix.		
	2) For intermediate ranges proportional rates may be adopted		
	2) The above rates are applicable for Elevated Level Services Reservoirs / OHSRs with RAFT FOUNDATION and a rate of Rs.3882/- per tonne for cement and Rs.41300/- per tonne for steel.		
	3) For every Meter of staging less than 10 m, the rate shall be reduced by Rs.0.05 paisa per liter per every Meter of difference in staging		
	4) For every Meter of staging above 10 m , the rate shall be increase by Rs.0.10 paisa per liter per every Meter of additional in staging		
	5) The above rates shall be increased / decreased due to increase / decrease in the cost of cement by		

	<p>Basic Rate x $\{(Rc-3882)/3882\} \times 0.07$ Rc = Rate of cement (Rs per Mt) at the time of preparation of estimate.</p>	
	<p>6) The above rates shall be increased / decreased due to increase / decrease in the cost of steel by Basic Rate x $\{(Rs-41300)/41300 \times 0.2\}$ Rs = Rate of steel (Rs per Mt) at the time of preparation of estimate.</p>	
	<p>7) Rate inclusive of three coats of epoxy paint Food Grade of best quality to inner surface of the Reservoir including roof.</p>	
	<p>8) The above rates shall be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of whether proof emulsion painting for external surfaces, lettering, all required fixtures, pipes, bends, valves etc., for pipe connections but excluding cost of pipes, bends and valves as per departmental designs and drawings.</p>	
	<p>9) The above rates are applicable for wind pressures up to 250 kg / Sq m .For decrease in wind pressure the rate has to be decreased by 5% per every 100kg/Sqm. If the ELSR / OHSR are to be designed for seismic forces also, cost shall be arrived by working out detailed quantities based on the designs.</p>	
	<p>10) (a) For tribal/Agency / Rural area, the above rates as arrived up to shall be increased by 10%. (b) An additional increase of 7.50% shall be allowed for OHSRs/ELSRs located in agency areas over the above rates for RWS Department works.</p>	
	<p>11) If the ELSR is to be designed for seismic forces also, cost shall be arrived by working out detailed quantities based on the design & difference to be paid extra.</p>	
	<p>12) If the ELSR is to be designed for seismic forces a) The above rates are applied up to Zone-II earth quake. b) For Zone-III earth quake the above rates are to be increased by 15 %.</p>	
	<p>13) The rate is arrived with the Cement & Steel rates of Rs 3882/MT and 41300/- approved by the BoCE for the month of March 2018.</p>	
	13) Fixtures include :	
	a) RCC or Aluminium ladder inside 0.60 m wide.	
	b) Spiral staircase on the outside shall be provided up to 200KL. Above 200KL capacity dog legged staircase shall be provided with staircase flight width of 1.0mts and landing width of 1.20mts with S.S railing up to 1.0 height.	
	c) Lightning arrestor, including conductor and earthing etc.	
	d) RCC ventilators with copper or stainless steel fly proof mesh.	
	e) D.I Manholes frame and cover 0.60x0.60 m as per IS specifications (light duty) - 2 Nos.	
	f) Water level indicator of good quality with ebonite/ copper float approved pattern - 1 No.	
	g) The ladder shall be with M.S ladder and Verticals with HDPE of 10kg/Sqcm shall be provided for single column OHSRs only.	
	h) Minimum staging for all ELSR/OHSR shall be 10.0mts.	

	i) The increase in staging shall be at 1.0mt interval.		
	j) The railing provided to the gallery and stair case shall be with stainless steel of grade 304 for a height of 1.20mts.		
	k). The dog legged staircase shall be enclosed with brick/CRS wall on three sides and front side with M.S collapsible gate up to 1st brace level from ground level to prevent unauthorized entry.		
	l). D.I swan neck ventilators shall be provided in top dome and slab.		
	m). The above rates are exclusive of all inlet, out let connection and valves. All valves near inlet, out let and for scour of ELSRs shall be D.I valves of heavy duty confirming to the specification of SoR item No.28		
45	Construction of Rapid Gravity Filtration Plant including all civil, mechanical and electrical works using sand as filter media, compatible with SCADA arrangements, duly following relevant IS codes in the design of plant components including trial running for 90 days etc., including chlorine contact tank & consumables etc., complete.		
	1) 2.0 Mld	Per liter	4.42
	2) 5.0 Mld	Per liter	3.60
	3) 10.0 Mld	Per liter	3.25
	4) 20.0 Mld	Per liter	2.61
	5) 30.00 Mld and above	Per liter	2.27
	NOTE :-		
	a) For Intermediate Capacities proportional rates may be adopted		
	b) The above rates are applicable with Cement @ rate of Rs.3882/-MT and Steel of Rs. 41300/MT.		
	c) The above rates shall be increased / decreased due to increase / decrease in the cost of cement by Basic Rate x {(Rc-3882)/3882 } x 0.07 Rc = Rate of cement (Rs per Mt) at the time of preparation of estimate		
	d) The above rates shall be increased / decreased due to increase / decrease in the cost of steel by Basic Rate x { (Rs-41300)/41300 } x 0.2 Rs = Rate of Steel (Rs per MT) at the time of preparation of estimate.		
	e) For Rural areas an extra allowance of 10% shall be given on basic rate		
	f) For components immersed in water Stain less Steel of Grade 304L shall be used. for other components 304 Grade steel shall be used.		
	g) Lab testing equipment of reputed make and consumables for one year. The testing equipment for conducting all laboratory tests shall be installed & training shall be imparted to the Municipal staff.		
	h) The rate is arrived with the Cement & Steel rates of	Rs 3882/MT and 41300/-	
	approved by the BoCE for the month of March 2018.		

	The above rates of Filtration Plants shall include all the following components.
	A) Civil Works (All works of VRCC Shall be in M30 design mix)
	1). Stilling Chamber and Aeration cascade
	2) Pre settling tank shall be provided for 30 MLD and above capacities of WTP for a minimum of 1 hr capacity.
	3). Raw water channel with Stainless Steel Weir of SS 304 L Grade material and also with digital flow meters
	4) Flash Mixer chamber with Flash mixing arrangements including SS shaft & SS Blades with gear wheel arrangements etc, using 304 L Grade Steel.
	5-a) Clariflocculator / Flocculation tanks with the components of central driven circular clarifier with scrapper & bridge arrangements made with Stainless Steel Grade 304 L tubes /angular for durability & chemical resistant with wheel arrangements etc,
	5-b) Two numbers of Clariflocculator shall be provided for WTP's of more than 30 MLD capacity.
	6) Filter house, Chemical house, Alum store, Laboratory room, Chlorination plant room, toilet etc. (All structures shall be provided RCC roof only).Chemical house & Chlorinator rooms are to be isolated and shall be as per CPHEEO manual.
	7) Wash water tank of suitable capacity shall be constructed at minimum clearance of 2.00m, above the roof slab of Filter beds / any other structure, and the minimum residual head at the top of under drain system shall not be less than 8.0 meters.
	8) Chlorine contact tank
	9) All the Doors and Windows shall be of Best Teak wood/Aluminium / UPVC make, except entrance door. The entrance door including shutter in filter house shall be with best teak wood of minimum size of 2.40 X 2.40 mts. a) Main Doors of all individual Buildings shall be made of Best Teak wood b) Other Internal Doors of the buildings shall be of Compressed wood/ Aluminium/ UPVC materials. c) Ventilators shall be provided for each building/structure of suitable size as per NBC standards.
	10) a) All pipes in Plant shall be of D.I., D/F materials. All Connecting pipes of the plant components such as from Flash mixer to Clariflocculator/ Clarifier/Flocculation tank, to Filter beds, sludge disposal pipes shall be of D.I., D/F material. The size of sludge disposal pipe shall be minimum of 450 mm dia. with D.I D/F pipe and minimum length of 100 meters. b) All the Valves in Plant shall be heavy duty and as per the specification of SoR item No.28
	11) The Pipe gallery way for Clear water/ Back wash water/ pipe connections shall be sufficiently spaced for easy operation & maintenance and inspection, as per standard norms.
	12) The bottom level of the wash water control chamber must be above G.L so as to dispose the wash water and sludge from Clariflocculator by gravity to disposal point.
	Additional specifications

	13) Railing for all the components (Clarifloculator, Filter House, Staircase etc.,) shall be provided with Stainless Steel of grade 304 for a height of 1.00m, with 40mm dia. pipe for top horizontals, 25mm dia. for middle row and 40mm dia. verticals spaced at interval of not more than 1.00m c/c.
	14) Inspection / Path ways in filter beds: Middle pathway: Minimum of 1.50m, Side pathway: Minimum of 1.20m
	15) Flooring in the buildings (Filter house, Chemical House, Chlorinator Room, Laboratory) shall be provided with Non-skid tiles of approved make & quality, as per standard specifications.
	16) The basement of the Filtration plant building shall be minimum of 1.20m above the existing nearby Road top level.
	17) Minimum head room of 2.00m shall be provided, at the alum mixing chambers in alum store for inspection & maintenance.
	18) The minimum width of entrance hall for the Filter House shall be 4.50m, and Laboratory of min size .of 3.30 X 4.50m.
	18) b) For various components of the WTP should be designed by considering the uplift pressure also.
	19) a) High efficient Air Blowers shall be installed to the design requirement with low noise pollution, environmental pollution as per PCB guide lines & Testing of blowers as per I.S Standards at site. b) The Piping from Blower to Filter Beds shall be GI and submerged pipe in water shall be HDPE.
	20) UPVC pipes shall be provided for under drain system. Filter pipe manifolds shall be assembled with HDPE pipes.
	21) Alum storage capacity shall be designed for minimum period of 90 days. Consumables shall be provided for 2115 Running Hours of WTP.
	22) <u>Chlorinator</u> : Vacuum type chlorinator shall be provided with following specifications: a) Vacuum operated solution feeding type Vacuum Regulator, Rotometer, Rate setting Valve, built-in NRV, Gas Overflow out let by man folding to mount the system with the unit. b) The unit shall consist of Ejector with necessary accessories such as Check Valve, Drain Valve and Vacuum relief Valves - for control of chlorinator dosage. c) The Accessories and manifolds shall be chlorine resistant and made of carbon steel seam less pipes, copper tube with brass fittings of suitable size & dimensions, with diaphragm sealed chlorine pressure gauge arrangements
	d) Water Booster Pump of pumping capacity ranging from 2 cum/hr to 12 cum/hr, with Head ranging from 16 to 35 m e) The water & solution carrying pipes shall be made of UPVC material of suitable size incl. all specials such as Tee's , Bends, couplings & NRVs and also Pressure Gauges of suitable range. f) Chlorine Gas Leak detector with alarm indicator. The installation includes all necessary accessories, civil and mechanical works, manifold header installations, injector fixing, connection with UPVC pipes, solution piping's, fixing of motors as per standard specifications and commissioning of Chlorination Plant to the required demand, with a defect liability period of 1 year. The chlorinator of may be of any reputed make or any make of Metito/Toshocow-Jesco

	Siemens Industrial Devices. g) Life breathing apparatus. h) Chlorine escape BA set
	i) 2 to 10 MLD Plants - 1Kg/hr Chlorinator- For Post Chlorination
	ii) 10 MLD to 20 MLD Plants - 2 Kg/hr Chlorinator - For Post Chlorination.
	iii) 20 MLD to 50 MLD Plants - 5 Kg/hr Chlorinator - For Post Chlorination.
	B) Mechanical Equipment
	1) Alum dosing equipment with SS 304 material made stirrers & paddles for chemical resistance. (Alum tanks must be bound with corrosion resistant material (HDPE Lining, Bitumen Coating, tiles etc)
	2) Flash mixer equipment with SS 304 material made stirrers & paddles for chemical resistance.
	3) Filtration plant equipment instrumentation and piping.
	4) Clariflocculation equipment (with stainless steel blades) with rotating bridge arrangement etc.,
	5) Pneumatic tyre wheel shall be provided for the bridge clariflocculator.
	6) Wash water tank fittings and pump sets with 100% stand by.
	7) Air blower with motor of 100% stand by and pipe connections made with of SS pipes confirming to SS 304 Grade, in filter bed region.
	8) Chlorination equipment and pipe connections with chlorinator of 100% standby.
	9) Spares & Tools for 2 years.
	10) Gaseous Chlorination with cylinders has to be provided with protection measures.
	C) Electrical Equipment
	1) Necessary power supply wiring to motors and switches bus bar connections as per IE Rules
	2) Internal wiring and illumination and fittings and fixtures for internal and external lighting exhaust fans, ceiling fans etc.
	3) Erecting mechanical and electrical equipment, trial run for 90 days at 23.50 hours per day testing the treated water as per CPHEEO standards and maintenance of records and imparting training to staff.
	4) Supply of 6 - Sets of completion plans and maintenance manual and brochures.
	5) All cables shall be of copper material, Cable ducts shall be covered with MS / Aluminium cheque plate.
	6) Min LUX levels inside the treatment plant shall be maintained.
	7) Yard lighting shall be provided as per norms.
	D) Equipment for Flow measurements
	1) Equipment for measuring Conductivity, Turbidity, Ph value, Residual Chlorine with recording & data storage facility (Computer based) & Alarm by SMS or other methods.

	2) Off - Site Supervisory and Data Acquisition (OSSADA) system for Raw water & Clear water flows by installing Digital Flow meters to measure the flows at Raw water Channel and at each filter bed individually and combined for measuring the quantities of water treated with a facility to record and store the readings & also to send messages to the assigned designatories about the variations/ deficiencies in the flow including alerts for back wash requirements of filter beds, and recovery of data for the past 360 days. All the Digital Flow Meters & Pressure Gauges shall be provided of standard approved make. The equipment shall have the following specifications.
	Hardware:
	i) Wall mounted Sensor House for measuring Raw water & Clear water flow from Filter bed out lets with accessories consists of
	ii) Electrode Type: General type, Scraper type or replaceable type Electrode made with material of SS external Ultra Touch Sensors as per requirement.
	iii) Customized Application Requirement : Sensors with Interface logic control board with serial interfaces, including accessories such as Add-on port, external DC Power Socket, On - sensor Board Buffer, Timer, RS485 Communication, Analog to Digital Sensing Sensor Circuit, 32 Sensors Sensing Tags, Interval Power Supply System , LCD 16c/2L, Filter Bed Working Status Indication LED, Filter Bed Wash Indication Button and memory of Data Storage for 30Days , status of Filter Bed Level indicator, Rating, Reading on LCB Display, Menu Driven Data for sending to Onsite Big Display, operated with Battery Power of any reputed make or any equivalent make.
	iv) Customized Application Requirement: Power Sensors Interface logic control board with support 8 Power Sensing tags, Central System Interfacing Communication, On - board analog to Digit Convert Integrate Circuit of any reputed make or any equivalent make.
	v) Customized Application Requirement: Centralized System with two serial interfaces, 3 No's of Add-On ports, One external DC Power Socket, On - Board Buffer, On - Board Timer, On - Board RS485 Communication, On - Board RS 232 Communication, On - Board GPRS/GSM Module, On - Board Voice Chip, On - Board Power Sensing Module, LCD 16c/2L, Filter Bed Wash Precaution Indication with Stop Button, Memory of Data Storage for 30 Days, Total Bed Rating, Reading display on LCD Display, Menu Driven, Menu Navigate Keypad, sending data to the Web Server, Communication with GPRS , operated with Battery Power of any reputed make or any equivalent make.
	Software:
	The software shall be designed with Web Domain with Data Base Server and Web Name as per the directions of the Departmental Authorities.
	The application of Software for Web design & Desktop shall meet the following requirements:
	i) Onsite Display: Letters with size of 1.5' seven Segment LED Display with Interface for each Filter Bed, for Onsite Display, by displaying the Bed Levels, Ratings, Readings in 3 Columns, for each bed of the plant in successive rows and cumulative results at the bottom of the screen.

	ii) Off Site Display: Letters with size of 1.5' seven Segment LED Display with Interface GPRS/GSM Modules Offsite Display, with Display of Bed Total Rating, Total Cumulative Reading as specified on On-site Display Features.
	The system shall have also the features of Onsite Bed Wash Voice Precautions for Bed Levels, Readings, Ratings, Bed Capacity Readings and Ratings and Bed Low Level Triggering, before & after Bed wash.
	The software shall also have the features of sending messages to the mobiles of the Departmental designatories indicating Bed Low Levels, Power Supply timings, Bed Wash timings and its status, Power Supply timings and its status Grid View Table, Motor Working time and its status Grid View Table, all trigger events and schedule information and including all Snap View Reports, all Daily, Monthly, Yearly Reports, all Power Working Reports, all Power Events Information etc.,

1. S o R FOR R.C.C. PLAIN ENDED PIPES

Sl. No.	Description				
1	Manufacture, Supply and Delivery of R.C.C. Plain ended pipes conforming to B.I.S 458/2003 ,Ex-factory, excluding transportation and all taxes.				
	Size	Unit	SoR For 2018-19		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Meter	129		
	100 mm dia.	Meter	150		
	150 mm dia.	Meter	177		
	200 mm dia.	Meter	211		
	225 mm dia.	Meter	229		
	250 mm dia.	Meter	242		
	300 mm dia.	Meter	349	834	846
	350 mm dia.	Meter	435	978	997
	400 mm dia.	Meter	502	1077	1103
	450 mm dia.	Meter	615	1240	1254
	500 mm dia.	Meter	671	1338	1552
	600 mm dia.	Meter	996	2035	2416
	700 mm dia.	Meter	1270	2527	3248
	800 mm dia.	Meter	1561	3343	4228
	900 mm dia.	Meter	1977	4201	5285
	1000 mm dia.	Meter	2423	5131	7257
	1100 mm dia.	Meter	2838	6177	8413
	1200 mm dia.	Meter	3385	7280	9839
	1400 mm dia.	Meter	4647	9372	13576
	1600 mm dia.	Meter	5339	12179	16155
	1800 mm dia.	Meter	7038	16177	21682

Note : All prices are ex-works.

The above rates of RCC Plain ended pipes are based on the following raw materials

CostCement. Rs.3882/- per MT (Excluding all taxes and freight).

Steel (M.S. Rods) - Rs.41500/- per MT. (Excluding all taxes and freight).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost =Cost as per the above table +R1+R2

R1= Variation (increase / decrease) in cost (Rs. per Meter) due to change in the Cost of M.S. Rods = (S2-S1)/1000 X Ws.

R2= Variation (increase / decrease) in cost (Rs. per Meter) due to change in the Cost of Cement = (C2-C1)/1000 X Wc.

S1 = Rs. 41500/- , S2 = Cost of M S Rods (Rs. perMT Excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs3882/- C2 = Cost of Cement (Rs. perMT Excluding all taxes and freight) at the time of preparation of estimate.

Ws=Weight of MS Rods required (Kg.) per Meter of pipe as per IS:458/2003.

Wc= Weight of Cement required (Kg.) per Meter of pipe.

2. S o R FOR R.C.C. COLLARS

Sl.No.	Description				
1	Manufacture, Supply and Delivery of R.C.C. Collars conforming to B.I.S. 458/2003 (rate per each collar) suitable for R.C.C. Plain ended pipes including transportation but excluding all taxes.				
	Size	Unit	SoR For 2018-19		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Each	40		
	100 mm dia.	Each	41		
	150 mm dia.	Each	41		
	200 mm dia.	Each	58		
	225 mm dia.	Each	62		
	250 mm dia.	Each	68		
	300 mm dia.	Each	89	126	126
	350 mm dia.	Each	111	160	160
	400 mm dia.	Each	122	182	182
	450 mm dia.	Each	193	244	244
	500 mm dia.	Each	218	290	290
	600 mm dia.	Each	297	380	380
	700 mm dia.	Each	387	508	508
	800 mm dia.	Each	545	651	651
	900 mm dia.	Each	653	759	759
	1000 mm dia.	Each	763	947	947
	1100 mm dia.	Each	932	1202	1202
	1200 mm dia.	Each	1131	1505	1505
	1400 mm dia.	Each	1458	1906	1906
	1600 mm dia.	Each	1866	2439	2439
	1800 mm dia.	Each	1882	3138	3138

The above rates of RCC Collars suitable to plain ended pipes are based on the following raw materials cost. Cement. Rs.3882/- per MT(Excluding all taxes and freight).

Steel (M.S. Rods) - Rs.41500/- per MT.(Excluding all taxes and freight).

The revised cost of RCC collars due to increase / decrease in the cost of rawmaterials shall be asper the following formula.

Revised Cost =Cost as per the above table +R1+R2

R1= Variation (increase / decrease) in cost (Rs. per each)due to change in the cost of M.S.

Rods =(S2-S1)/1000 X Ws.

R2= Variation (increase /decrease) in cost (Rs. per each) due to change in thecost of Cement = (C2-C1)/1000 X Wc.

S1 = Rs. 41500/- , S2 = Cost of M S Rods (Rs. per MT excluding all taxes and freight) at the time ofpreparation of estimate.

C1 = Rs.3882/-,

C2 = Cost of Cement (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate

Ws=Weight of MS Rods required (Kg.) per each collar.

Wc= Weight of Cement required (Kg.) per each collar.

3. S o R FOR R.C.C. S/S PIPES (Non - Pressure)

Sl. No.	Description				
1	Manufacture, Supply and Delivery of R.C.C. Socket and Spigot pipes conforming to B.I.S. 458/2003 at ex-factory (rate per meter of effective length) Excluding transportation and all taxes.				
	Size	Unit	SoR For 2018-19		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Meter	163		
	100 mm dia.	Meter	185		
	150 mm dia.	Meter	214		
	200 mm dia.	Meter	263		
	225 mm dia.	Meter	285		
	250 mm dia.	Meter	303		
	300 mm dia.	Meter	427	1077	1139
	350 mm dia.	Meter	550	1317	1339
	400 mm dia.	Meter	604	1460	1484
	450 mm dia.	Meter	754	1610	1621
	500 mm dia.	Meter	870	1842	2004
	600 mm dia.	Meter	1218	2586	2616
	700 mm dia.	Meter	1578	3312	3403
	800 mm dia.	Meter	2034	4390	4429
	900 mm dia.	Meter	2585	5522	5597
	1000 mm dia.	Meter	3161	6185	5576
	1100 mm dia.	Meter	3662	7310	7596
	1200 mm dia.	Meter	4128	8635	8896
	1400 mm dia.	Meter	5948	11434	12632
	1600 mm dia.	Meter	7363	14871	15039
	1800 mm dia.	Meter	8159	19756	20209

Note: All the prices are ex-works. The above rates of RCC S/S Non-Pressure pipes are based on the following raw materials cost.

Cement. Rs.3882/- per MT,(Excluding all taxes and freight).

Steel (M.S. Rods) – Rs.41500/- per MT. (Excluding all taxes and freight).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost =Cost as per the above table +R1+R2

R1= Variation (increase / decrease) in cost (Rs. per Meter) due to change in the cost of M.S. Rods = (S2-S1)/1000 X Ws.

R2= Variation (increase / decrease) in cost (Rs. per Meter) due to change in the cost of Cement = (C2-C1)/1000 X Wc.

S1 = Rs. 41500/- , S2 = Cost of M S Rods (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3882/- , C2 = Cost of Cement (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate

Ws=Weight of MS Rods required (Kg.) per Meter of pipe as per IS: 458/2003.

WC= Weight of Cement required (Kg.) per Meter of pipe.

4. S o R FOR R.C.C. S/S PIPES (Pressure)

Sl.No.	Description				
1	Manufacture, Supply and Delivery of R.C.C. Socket and Spigot pipes conforming to B.I.S. 458/2003 Ex-factory (rate per meter of effective length) Excluding transportation and all taxes.				
	Size	Unit	SoR For 2018-19		
			P1 - Class	P2 - Class	P3 - Class
	80 mm dia.	Meter	219	245	280
	100 mm dia.	Meter	245	294	340
	150 mm dia.	Meter	338	437	541
	200 mm dia.	Meter	392	564	745
	225 mm dia.	Meter	441	641	828
	250 mm dia.	Meter	483	681	862
	300 mm dia.	Meter	647	976	1211
	350 mm dia.	Meter	806	1365	1756
	400 mm dia.	Meter	958	1814	2330
	450 mm dia.	Meter	1011	2151	2852
	500 mm dia.	Meter	1364	2317	3227
	600 mm dia.	Meter	1868	3461	4456
	700 mm dia.	Meter	2499	4542	5630
	800 mm dia.	Meter	3123	5351	6770
	900 mm dia.	Meter	3758	6260	
	1000 mm dia.	Meter	4784	7145	
	1100 mm dia.	Meter	5754		
	1200 mm dia.	Meter	6708		

Note: All the prices are ex-works.

The above rates of RCC S/S Pressure pipes are based on the following raw materials cost.

Cement. Rs.3882/- per MT,(Excluding all taxes and freight).

Steel (M.S. Rods) - Rs.41500/- per MT. (Excluding all taxes and freight).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost =Cost as per the above table +R1+R2

R1= Variation (increase / decrease) in cost (Rs. per Meter)due to change in the cost of M.S.

Rods = (S2-S1)/1000 X Ws.

R2= Variation (increase / decrease) in cost (Rs. per Meter)due to change in the cost of

Cement = (C2-C1)/1000 X Wc.

S1 = Rs. 41500/-

S2 = Cost of M S Rods (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3882/-, C2 = Cost of Cement (Rs.per MT excluding all taxes and freight) at the time of preparation of estimate

Ws=Weight of MS Rods required (Kg) per Meter of pipe as per IS: 458 /2003.WC= Weight of Cement required (Kg) per Meter of pipe.

5. S o R FOR RUBBER RINGS TO SUIT R.C.C. S/S PIPES

Sl. No.	Description				
1	Manufacture, Supply and Delivery of Rubber rings to suit R.C.C.Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding all taxes. The Rubber Rings shall be tested at the factory premises confirming to B.I.S. 5382/1985.				
	Size	Unit	SoR For 2018-19		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Each	26		
	100 mm dia.	Each	32		
	150 mm dia.	Each	57		
	200 mm dia.	Each	67		
	225 mm dia.	Each	73		
	250 mm dia.	Each	82		
	300 mm dia.	Each	100	129	129
	350 mm dia.	Each	116	154	154
	400 mm dia.	Each	128	175	175
	450 mm dia.	Each	145	198	198
	500 mm dia.	Each	189	227	227
	600 mm dia.	Each	248	329	329
	700 mm dia.	Each	248	394	394
	800 mm dia.	Each	428	478	478
	900 mm dia.	Each	536	646	646
	1000 mm dia.	Each	627	780	780
	1100 mm dia.	Each	754	999	999
	1200 mm dia.	Each	1208	1256	1256
	1400 mm dia.	Each	1328	1382	1382
	1600 mm dia.	Each	1654	1686	1686
	1800 mm dia.	Each	2060	2154	2154
2	Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding all taxes. The Rubber Rings shall be tested at the factory premises confirming to B.I.S. 5382/1985.				
	Size		P1-Class	P2-Class	P3-Class
	80 mm dia.	Each	26	26	26
	100 mm dia.	Each	32	33	33
	150 mm dia.	Each	57	57	57
	200 mm dia.	Each	67	67	67
	225 mm dia.	Each	73	75	77
	250 mm dia.	Each	82	85	86
	300 mm dia.	Each	100	106	110
	350 mm dia.	Each	116	132	145
	400 mm dia.	Each	128	175	178
	450 mm dia.	Each	145	200	205
	500 mm dia.	Each	189	227	237

	600 mm dia.	Each	248	280	285
	700 mm dia.	Each	338	370	394
	800 mm dia.	Each	428	474	474
	900 mm dia.	Each	536	598	
	1000 mm dia.	Each	627	722	
	1100 mm dia.	Each	754		
	1200 mm dia.	Each	1208		

6. S o R FOR CONVEYANCE OF R.C.C. PLAIN ENDED PIPES

Sl.No.	Description	Rate up to 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.	Rate up to 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	Conveyance of R.C.C plain ended pipes on all weathered roads including loading, unloading and stacking (per Meter) SoR for 2018-19				
		NP - 2 Class		NP - 3 Class & NP - 4 Class	
	80 mm dia.	3.81	0.17		
	100 mm dia.	5.07	0.17		
	150 mm dia.	7.61	0.32		
	200 mm dia.	10.14	0.32		
	225 mm dia.	11.41	0.51		
	250 mm dia.	12.68	0.51		
	300 mm dia.	17.76	0.68	49.45	1.36
	350 mm dia.	25.36	1.52	53.26	1.52
	400 mm dia.	27.90	1.69	63.40	2.02
	450 mm dia.	36.77	2.02	68.47	2.36
	500 mm dia.	39.31	2.36	74.81	2.36
	600 mm dia.	57.05	3.71	112.84	5.24
	700 mm dia.	72.27	5.24	125.52	6.08
	800 mm dia.	84.95	5.24	150.88	6.08
	900 mm dia.	97.62	5.24	197.79	11.48
	1000 mm dia.	144.54	10.80	238.36	11.48
	1100 mm dia.	158.48	10.80	258.65	12.49
	1200 mm dia.	180.04	11.48	289.08	12.49
	1400 mm dia.	216.81	11.48	393.05	13.00
	1600 mm dia.	251.05	11.48	471.65	13.00
	1800 mm dia.	289.08	11.48	628.87	18.24

7. S o R FOR CONVEYANCE OF R.C.C. S/S PIPES

Sl. No.	Description	Rate upto 5 Kms Lead including Loading, unloading & stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	Conveyance of R.C.C. Socket and Spigot pipes on all-weather roads including loading, unloading and stacking (per Meter of effective length)				
	Size	NP - 2 & P1 Class		NP – 3 & NP - 4 Class	
	80 mm dia.	5.07	0.16		
	100 mm dia.	5.07	0.30		
	150 mm dia.	8.88	0.30		
	200 mm dia.	11.41	0.61		
	225 mm dia.	12.68	0.61		
	250 mm dia.	13.95	1.38		
	300 mm dia.	22.83	1.53	59.98	1.84
	350 mm dia.	26.62	1.69	65.21	2.14
	400 mm dia.	26.62	1.99	80.86	4.00
	450 mm dia.	38.04	2.14	88.68	4.00
	500 mm dia.	41.84	2.31	97.81	4.30
	600 mm dia.	54.52	4.00	131.71	6.13
	700 mm dia.	67.19	4.30	177.35	12.12
	800 mm dia.	92.55	6.59	209.96	12.12
	900 mm dia.	138.20	11.82	242.56	12.12
	1000 mm dia.	157.22	11.82	255.60	12.12
	1100 mm dia.	177.50	12.12	273.86	12.12
	1200 mm dia.	197.79	12.12	306.46	12.42
	1400 mm dia.	245.97	12.12	410.79	12.42
	1600 mm dia.	291.62	12.42	485.13	13.35
	1800 mm dia.	361.34	12.42	646.83	18.26
		P2 – Class		P3 – Class	
	80 mm dia.	5.07	0.16	5.07	0.16
	100 mm dia.	5.07	0.30	5.07	0.30

	150 mm dia.	8.88	0.30	8.88	0.30
	200 mm dia.	11.41	0.61	15.21	1.38
	225 mm dia.	15.21	1.38	17.76	1.53
	250 mm dia.	16.48	1.53	21.55	1.69
	300 mm dia.	31.69	1.84	36.77	1.99
	350 mm dia.	39.31	2.14	50.72	2.31
	400 mm dia.	46.91	2.31	67.19	4.00
	450 mm dia.	59.59	3.84	83.69	4.00
	500 mm dia.	67.19	4.00	101.43	5.99
	600 mm dia.	88.76	4.00	147.07	7.67
	700 mm dia.	133.12	8.13	214.27	12.12
	800 mm dia.	176.24	11.51	273.86	12.12
	900 mm dia.	214.27	12.12		
	1000 mm dia.	263.72	12.42		

8. S o R FOR A.C. PIPES

Sl.No	Description					
1	2					
1	Manufacture, Supply of A.C.Pressure pipes (Mazza process) as per BISNo: 1592/2003as amended from time to time duly marked with BIS mark, including cost of material, incidental handling, loading and packing charges , but exclusive of transportation, unloading,stacking at departmental stores, and excluding all taxes. The pipes shall be tested at factory premises confirming to IS Code 1592/2003.					
	Size	Unit	SoR For 2018-19			
				Class - 15	Class - 20	Class - 25
	80 mm dia.	Rate/Meter		192	209	262
	100 mm dia.	Rate/Meter		253	321	394
	125 mm dia.	Rate/Meter		330	411	515
	150 mm dia.	Rate/Meter		464	577	725
	200 mm dia.	Rate/Meter		770	983	1248
	250 mm dia.	Rate/Meter		977	1264	1582
	300 mm dia.	Rate/Meter		1367	1777	2269
	350 mm dia.	Rate/Meter		1666	2165	2728
	400 mm dia.	Rate/Meter		2167	2831	3514
	450 mm dia.	Rate/Meter		2567	3405	4264
	500 mm dia.	Rate/Meter		3173	4166	5232
	600 mm dia.	Rate/Meter		4510	5886	7501
	700 mm dia.	Rate/Meter		5980	8111	10488
	750 mm dia.	Rate/Meter		6814	9362	12002
	800 mm dia.	Rate/Meter		7798	10608	13614
	850 mm dia.	Rate/Meter		8746	11935	15331
	900 mm dia.	Rate/Meter		9750	13332	17149
	1000 mm dia.	Rate/Meter		12036	16369	21088
2	Lowering, laying and jointing of AC pressure pipes with AC couplings or CID joints complete with Rubber rings in readymade trenches true to alignment and gradient including filling with water lead upto 500 mts and testing to required pressure including all sundries but excluding cost of jointing materials and conveyance from source of supply as per BISNo. 6530/1972					
	80 mm dia.	Rate/Meter		51	51	51
	100 mm dia.	Rate/Meter		74	74	74
	125 mm dia.	Rate/Meter		81	81	81
	150 mm dia.	Rate/Meter		97	97	97
	200 mm dia.	Rate/Meter		128	128	128
	250 mm dia.	Rate/Meter		153	153	153
	300 mm dia.	Rate/Meter		188	188	188
	350 mm dia.	Rate/Meter		318	318	318
	400 mm dia.	Rate/Meter		480	480	480
	450 mm dia.	Rate/Meter		583	583	583
	500 mm dia.	Rate/Meter		740	740	740
	600 mm dia.	Rate/Meter		796	796	796
	700 mm dia.	Rate/Meter		888	888	888
	750 mm dia.	Rate/Meter		988	988	988
	800 mm dia.	Rate/Meter		1040	1040	1040

	850 mm dia.	Rate/Meter		1110	1110	1110
	900 mm dia.	Rate/Meter		1210	1210	1210
	1000 mm dia.	Rate/Meter		1246	1246	1246
	<p>1. The above rates of AC Pipes are based on the Cement cost of RS 3882/- per MT (Excluding all taxes and freight).</p> <p>2. The above rates of AC pipes are based on the Fiber cost of Rs 78,500/- per M.T (Excluding all taxes & Freight)</p> <p>For any Increase/ Decrease in the rate of cement, the price of AC pipe per Rmt shall be increased/decreased as under.</p> <p>$W \times 0.85 \times IC$ Where W = Weight of pipe in Kg's/Rmt</p> <p>IC = Increase/Decrease in cost of cement/Kg</p> <p>For any increase/decrease in the rate of fiber, the price of AC pipe per Rmt shall be increased/Decreased as under :</p> <p>$W \times 0.15 \times IF$ Where : W = Weight of pipe in Kg's/Rmt</p> <p>IF = Increase /Decrease in cost of fiber/Kg</p>					
Note:	<p>1) The Fiber rates are to be obtained from A.C. Pipe manufacturer of "Mazza" process.</p> <p>2) The cement rate shall be communicated by the sub-committee of Board of Chief engineers.</p>					
	Transportation of AC pressure pipes at site of work anywhere in Andhra Pradesh on motor able roads for full truck loads including transit insurance, unloading, and stacking at site of work etc. Complete (AC Couplings and Rubber rings are to be supplied free of transportation charges).					5% on the basic cost of corresponding AC Pressure pipes.

9. S o R FOR A.C. COUPLINGS

Sl. No.	Description					
1	Manufacture, Supply of A.C Couplings suitable to A.C.Pressure pipes (Mazza process) as per BIS: 1592/2003 excluding cost of rubber rings to suit AC pressure pipes including cost of material, incidental handling, packing, transportation and unloading at site transit risk, but excluding all taxes and testing of joints as per ISCode.					
	Size	Unit	SoR For 2018-19			
				Class - 15	Class - 20	Class – 25
	80 mm dia.	Rate/Each		93	101	115
	100 mm dia.	Rate/Each		121	130	156
	125 mm dia.	Rate/Each		152	167	200
	150 mm dia.	Rate/Each		177	221	273
	200 mm dia.	Rate/Each		326	354	451
	250 mm dia.	Rate/Each		380	478	609
	300 mm dia.	Rate/Each		495	641	825
	350 mm dia.	Rate/Each		643	830	1060
	400 mm dia.	Rate/Each		990	1292	1657
	450 mm dia.	Rate/Each		1185	1564	2009
	500 mm dia.	Rate/Each		1414	1892	2417
	600 mm dia.	Rate/Each		1728	2166	2769
	700 mm dia.	Rate/Each		2289	3081	4007
	750 mm dia.	Rate/Each		2582	3530	4557
	800 mm dia.	Rate/Each		2929	3972	5140
	850 mm dia.	Rate/Each		3264	4443	5761
	900 mm dia.	Rate/Each		3611	4939	6412
	1000 mm dia.	Rate/Each		4407	6005	7826

1. The above rates of AC Coupling are based on the Cement cost of RS 3882/- per MT (Excluding all taxes and freight).
2. The above rates of AC Coupling are based on the Fiber cost of Rs 78,500/- per M.T (excluding all taxes &Fright)

For any Increase/ Decrease in the rate of cement, the price of AC Coupling per Each shall be increased/decreased as under.

$W \times 0.85 \times IC$ Where W = Weight of Coupling in Kgs/each

IC = Increase/Decrease in cost of cement/kg

For any increase/decrease in the rate of fiber, the price of AC Coupling per each shall be increased/Decreased as under:

$W \times 0.15 \times IF$ Where: W=: Weight of Coupling in Kgs/Each

IF = Increase /Decrease in cost of fiber/kg

The Fiber rates are to be obtained from A.C. Pipe manufacturer of “Mazza” process.

10. S o R FOR RUBBER RINGS TO SUIT A.C. COUPLINGS

Sl. No.	Description					
1	Schedule of rate for supply of Rubber rings manufactured as per BIS: 5382/1988 with BIS Mark embossed per each set suitable for A.C. Couplings including cost of material, incidental, handling, packing and transportation and unloading at site transit risk etc., but excluding all taxes. The Rubber Rings shall be tested at the factory premises confirming to B.I.S 5382/1988					
	Size	Unit	SoR for 2018-19			
				Class - 15	Class - 20	Class - 25
	80 mm dia.	Each Set		75	75	75
	100 mm dia.	Each Set		91	91	91
	125 mm dia.	Each Set		119	119	119
	150 mm dia.	Each Set		150	150	150
	200 mm dia.	Each Set		156	156	156
	250 mm dia.	Each Set		180	180	180
	300 mm dia.	Each Set		180	180	180
	350 mm dia.	Each Set		205	205	205
	400 mm dia.	Each Set		251	251	251
	450 mm dia.	Each Set		294	294	294
	500 mm dia.	Each Set		340	340	340
	600 mm dia.	Each Set		385	385	385
	700 mm dia.	Each Set		800	800	800
	750 mm dia.	Each Set		831	831	831
	800 mm dia.	Each Set		892	892	892
	850 mm dia.	Each Set		994	994	994
	900 mm dia.	Each Set		1045	1045	1045
	1000 mm dia.	Each Set		1158	1158	1158

11. S o R FOR PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES FOR THE YEAR 2018-19

Sl.No.	Description							
1	Manufacture, Supply, Delivery of Pre-stressed (Non-cylinder) concrete pipes conforming to IS 784/2001 ex-factory excluding transportation, taxes For the following Field/Site Test Pressures. (The manufacture shall design the pipes as per the IS Code 784-2001)							
	Size	Unit	SoR for 2018-19.					
			6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
	350 MM DIA.	Meter	2465	2473	2483	2493	2544	2634
	400 MM DIA.	Meter	2644	2663	2692	2725	2774	2815
	450 MM DIA.	Meter	2770	2791	2821	2874	2950	3013
	500 MM DIA.	Meter	3007	3018	3040	3102	3167	3263
	600 MM DIA.	Meter	3448	3471	3503	3611	3729	3842
	700 MM DIA.	Meter	3920	3980	4101	4230	4360	4561
	800 MM DIA.	Meter	4756	4884	5005	5185	5355	5693
	900 MM DIA.	Meter	5467	5637	5798	6069	6299	6808
	1000 MM DIA.	Meter	6456	6666	6886	7107	7346	7966
	1100 MM DIA.	Meter	7265	7495	7766	8035	8305	9055
	1200 MM DIA.	Meter	8163	8493	8793	8994	9553	10474
	1300 MM DIA.	Meter	9300	9660	10020	10370	11430	11870
	1400 MM DIA.	Meter	10817	11247	11668	12377	13183	13822
	1500 MM DIA.	Meter	12250	12750	13221	14480	14939	16819
	1600 MM DIA.	Meter	13801	14342	14881	16381	16948	18739
	1700 MM DIA.	Meter	14884	15505	16125	17694	19704	20595
	1800 MM DIA.	Meter	16460	17531	18471	20326	21256	23530
	1900 MM DIA.	Meter	17598	18583	20206	21388	23283	25663
	2000 MM DIA.	Meter	19326	20558	21613	23776	26827	27916
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of rubber rings, cost of transportation of water and emptying pipe line after completion of field testing etc.							
	350 MM DIA.	Meter	276	276	276	276	276	276

	400 MM DIA.	Meter	298	298	298	298	298	298
	450 MM DIA.	Meter	345	345	345	345	345	345
	500 MM DIA.	Meter	366	366	366	366	366	366
	600 MM DIA.	Meter	450	450	450	450	450	450
	700 MM DIA.	Meter	529	529	529	529	529	529
	800 MM DIA.	Meter	597	597	597	597	597	597
	900 MM DIA.	Meter	655	655	655	655	655	655
	1000 MM IA	Meter	757	757	757	757	757	757
	1100 MM IA	Meter	849	849	849	849	849	849
	1200 MMDIA.	Meter	942	942	942	942	942	942
	1300 MM DIA.	Meter	1067	1067	1067	1067	1067	1067
	1400 MM DIA.	Meter	1207	1207	1207	1207	1207	1207
	1500 MM DIA.	Meter	1309	1309	1309	1309	1309	1309
	1600 MM DIA.	Meter	1466	1466	1466	1466	1466	1466
	1700 MM DIA.	Meter	1596	1596	1596	1596	1596	1596
	1800 MM DIA.	Meter	1690	1690	1690	1690	1690	1690
	1900 MM DIA.	Meter	1783	1783	1783	1783	1783	1783
	2000 MM DIA.	Meter	1878	1878	1878	1878	1878	1878
3	Conveyance of pre-stressed (Non-cylinder) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes.(minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)							
	350 MM DIA.	Per K.M/M	1.58	1.58	1.58	1.58	1.58	1.58
	400 MM DIA.	Per K.M/M	1.58	1.58	1.58	1.58	1.58	1.58
	450 MM DIA.	Per K.M/M	1.93	1.93	1.93	1.93	1.93	1.93
	500 MM DIA.	Per K.M/M	2.06	2.06	2.06	2.06	2.06	2.06
	600 MM DIA.	Per K.M/M	2.30	2.30	2.30	2.30	2.30	2.30
	700 MM DIA.	Per K.M/M	3.75	3.75	3.75	3.75	3.75	3.75
	800 MM DIA.	Per K.M/M	3.75	3.75	3.75	3.75	3.75	3.75

	900 MM DIA.	Per K.M/M	3.75	3.75	3.75	3.75	3.75	3.75
	1000 MM DIA.	Per K.M/M	6.04	6.04	6.04	6.04	6.04	6.04
	1100 MM DIA.	Per K.M/M	6.04	6.04	6.04	6.04	6.04	6.04
	1200 MM DIA.	Per K.M/M	11.59	11.59	11.59	11.59	11.59	11.59
	1300 MM DIA.	Per K.M/M	11.72	11.72	11.72	11.72	11.72	11.72
	1400 MM DIA.	Per K.M/M	11.72	11.72	11.72	11.72	11.72	11.72
	1500 MM DIA.	Per K.M/M	11.72	11.72	11.72	11.72	11.72	11.72
	1600 MM DIA.	Per K.M/M	13.17	13.17	13.17	13.17	13.17	13.17
	1700 MM DIA.	Per K.M/M	13.17	13.17	13.17	13.17	13.17	13.17
	1800 MM DIA.	Per K.M/M	13.41	13.41	13.41	13.41	13.41	13.41
	1900 MM DIA.	Per K.M/M	14.01	14.01	14.01	14.01	14.01	14.01
	2000 MM DIA.	Per K.M/M	14.01	14.01	14.01	14.01	14.01	14.01
4	Cost of Machine End pair (Socket +Spigot) for providing M.S Specials on PSC pipelines excluding cost of M.S Special including cost and conveyance to site etc., complete.							
	350 MM DIA.	Per Pair	9900	9900	9900	9900	9900	9900
	400 MM DIA.	Per Pair	11400	11400	11400	11400	11400	11400
	450 MM DIA.	Per Pair	12800	12800	12800	12800	12800	12800
	500 MM DIA.	Per Pair	14300	14300	14300	14300	14300	14300
	600 MM DIA.	Per Pair	17100	17100	17100	17100	17100	17100
	700 MM DIA.	Per Pair	20100	20100	20100	20100	20100	20100
	800 MM DIA.	Per Pair	23000	23000	23000	23000	23000	23000
	900 MM DIA.	Per Pair	25900	25900	25900	25900	25900	25900
	1000 MM DIA.	Per Pair	28600	28600	28600	28600	28600	28600
	1100 MM DIA.	Per Pair	31500	31500	31500	31500	31500	31500

	1200 MM DIA.	Per Pair	34400	34400	34400	34400	34400	34400
	1300 MM DIA.	Per Pair	37100	37100	37100	37100	37100	37100
	1400 MM DIA.	Per Pair	43700	43700	43700	43700	43700	43700
	1500 MM DIA.	Per Pair	51300	51300	51300	51300	51300	51300
	1600 MM DIA.	Per Pair	57100	57100	57100	57100	57100	57100
	1700 MM DIA.	Per Pair	64100	64100	64100	64100	64100	64100
	1800 MM DIA.	Per Pair	73300	73300	73300	73300	73300	73300
	1900 MM DIA.	Per Pair	84700	84700	84700	84700	84700	84700
	2000 MM DIA.	Per Pair	101900	101900	101900	101900	101900	101900
5	Cost of M.S Flanges including cost of bolts, nuts, rubber packing etc., complete and flange thickness confirming to is:7322-1985 and flange dimensions confirming to is:1538-1993 excluding cost of ms specials including cost and conveyance to site, vat etc., complete.							
	Dia.meter and thickness	Unit	Rate	Diameter and thickness		Unit	Rate	
	80 mm dia. x 15 mm thick	Each Flange	700	500mm dia.x 20 mm thick		Each Flange	7150	
	100 mm dia. x 15 mm thick	Each Flange	970	600 mm dia.x 20 mm thick		Each Flange	9010	
	125 mm dia. x 15 mm thick	Each Flange	1160	700 mm dia.x 25 mm thick		Each Flange	12740	
	150 mm dia. x 15 mm thick	Each Flange	1540	750 mm dia.x 25 mm thick		Each Flange	14020	
	200 mm dia. x 15 mm thick	Each Flange	1930	800 mm dia.x 25 mm thick		Each Flange	15690	
	250 mm dia. x 15 mm thick	Each Flange	2510	900 mm dia.x 25 mm thick		Each Flange	18010	
	300 mm dia. x 15 mm thick	Each Flange	2840	1000 mm dia.x 25 mm thick		Each Flange	21230	
	350 mm dia. x 18 mm thick	Each Flange	4140	1050 mm dia.x 25 mm thick		Each Flange	22490	
	400 mm dia. x 18 mm thick	Each Flange	5170	1100 mm dia.x 25 mm thick		Each Flange	24310	
	450 mm dia. x 18 mm thick	Each Flange	6320	1200 mm dia.x 32 mm thick		Each Flange	32290	

Note: a) The above rate of PSC pipes are based on the HT wire cost of Rs.52,500/-MT (Excluding all taxes and freight).and cement price of Rs3882/- per MT (Excluding all taxes and freight).

The rates may be revised depending upon the increase/decrease in the cost of HT wire and Cement. as per the following method.
The cost of HT wire may be obtained from reputed firms like SAIL/TATA/ SS Ltd. etc.,

Revised Cost = Cost as per the above table + R1 + R2.

R1 = Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of HT Wire $= (H2 - H1) / 1000 \times W_h$.

R2 = Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of Cement $= (C2 - C1) / 1000 \times W_c$.

H1 = Rs. 52,500/- H2 = Cost of HT Wire (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3882/- C2 = Cost of Cement (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate

W_h = Weight of HT Wire required (Kg.) per meter of pipe.

W_c = Weight of Cement required (Kg.) per meter of pipe.

The rates for MS flanges are considering landed price of MS Plates of Rs.49000/- per MT.(Excluding all taxes and freight). Price variation to be released on actual weight of flange.

Note: 1) The above formula for calculation of revised cost to be used for preparation of Estimates only.

12. S o R FOR PRE-STRESSED (CYLINDER) CONCRETE PIPES FOR THE YEAR 2018-19

S. No.	Description										
1	Pre-stressed (Cylinder type) concrete pipes conforming to IS 784/2001 @ ex-factory cost of pipes, excluding transportation, laying, jointing, testing, bends, tees, specials, all taxes for the following Field/Site Test Pressures.(The manufacture shall design the pipes as per the IS Code 784-2001)										
	Size	Unit		SoR For 2018-19							
			4 Kg/cm2	6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2	18 Kg/cm2	20 Kg/cm2
	400 MM DIA.	Meter	4613	4613	4613	4633	4683	4712	4770	4810	4848
	450 MM DIA.	Meter	4919	4919	4879	4978	5017	5076	5145	5193	5232
	500 MM DIA.	Meter	5225	5225	5274	5333	5382	5441	5520	5588	5646
	600 MM DIA.	Meter	5986	6065	6133	6202	6271	6339	6455	6553	6612
	700 MM DIA.	Meter	6815	6913	7001	7098	7186	7283	7441	7547	7675
	800 MM DIA.	Meter	8031	8139	8255	8373	8489	8617	8793	8950	9095
	900 MM DIA.	Meter	9132	9279	9434	9581	9737	9894	10319	10523	10768
	1000 MM DIA.	Meter	10986	11171	11357	11542	11737	11923	12487	12761	13044
	1100 MM DIA.	Meter	12190	12415	12639	12863	13097	13332	14015	14318	14663
	1200 MM DIA.	Meter	13555	13818	14091	14363	14637	14910	15733	16108	16487
	1300 MM DIA.	Meter	14841	15524	15846	16167	16489	17122	17773	18254	18771
	1400 MM DIA.	Meter	17056	17456	17866	18317	19138	19639	20408	20617	21482
	1500 MM DIA.	Meter	20057	20487	20917	21346	22173	22651	23283	24247	24783
	1600 MM DIA.	Meter	22834	23322	23809	24705	25252	25868	26933	27537	28152
	1700 MM DIA.	Meter	24526	25081	25637	26661	27264	28565	29247	29941	30635
	1800 MM DIA.	Meter	29137	29752	30832	31514	32205	33661	34422	35201	35980
	1900 MM DIA.	Meter	31130	31823	33030	33795	35352	36201	39652	40622	41592
	2000 MM DIA.	Meter	32858	34126	34974	35823	37534	38490	39424	40388	41355

2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diaper cloth, cost of transportation of water and emptying pipe line after completion of field testing etc.										
	400 MM DIA.	Meter	581	581	581	581	581	581	581	581	581
	450 MM DIA.	Meter	684	684	684	684	684	684	684	684	684
	500 MM DIA.	Meter	745	745	745	745	745	745	745	745	745
	600 MM DIA.	Meter	871	871	871	871	871	871	871	871	871
	700 MM DIA.	Meter	993	993	993	993	993	993	993	993	993
	800 MM DIA.	Meter	1140	1140	1140	1140	1140	1140	1140	1140	1140
	900 MM DIA.	Meter	1284	1284	1284	1284	1284	1284	1284	1284	1284
	1000 MM DIA.	Meter	1407	1407	1407	1407	1407	1407	1407	1407	1407
	1100 MM DIA.	Meter	1595	1595	1595	1595	1595	1595	1595	1595	1595
	1200 MM DIA.	Meter	1740	1740	1740	1740	1740	1740	1740	1740	1740
	1300 MM DIA.	Meter	1863	1863	1863	1863	1863	1863	1863	1863	1863
	1400 MM DIA.	Meter	2052	2052	2052	2052	2052	2052	2052	2052	2052
	1500 MM DIA.	Meter	2276	2276	2276	2276	2276	2276	2276	2276	2276
	1600 MM DIA.	Meter	2464	2464	2464	2464	2464	2464	2464	2464	2464
	1700 MM DIA.	Meter	2774	2774	2774	2774	2774	2774	2774	2774	2774
	1800 MM DIA.	Meter	2941	2941	2941	2941	2941	2941	2941	2941	2941
	1900 MM DIA.	Meter	3208	3208	3208	3208	3208	3208	3208	3208	3208
	2000 MM DIA.	Meter	3416	3416	3416	3416	3416	3416	3416	3416	3416
3	Conveyance of Pre-stressed (Cylinder type) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)										
	400 MM DIA.	Per KM/M	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
	450 MM DIA.	Per KM/M	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
	500 MM DIA.	Per KM/M	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93

	600 MM DIA.	Per KM/M	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17
	700 MM DIA.	Per KM/M	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
	800 MM DIA.	Per KM/M	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
	900 MM DIA.	Per KM/M	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
	1000 MM DIA.	Per KM/M	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55
	1100 MM DIA.	Per KM/M	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55
	1200 MM DIA.	Per KM/M	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
	1300 MM DIA.	Per KM/M	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
	1400 MM DIA.	Per KM/M	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
	1500 MM DIA.	Per KM/M	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
	1600 MM DIA.	Per KM/M	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87
	1700 MM DIA.	Per KM/M	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17
	1800 MM DIA.	Per KM/M	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17
	1900 MM DIA.	Per KM/M	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17
	2000 MM DIA.	Per KM/M	13.89	13.89	13.89	13.89	13.89	13.89	13.89	13.89	13.89

Note: The rates of PCCP pipes which were incorporated in the SSR are based on the following raw materials cost.

HT Wire: - Rs.52, 500/- (excluding all taxes & freight)

HR Coil (Hot Rolled): - Rs.45500/- (excluding all taxes & freight)

Cement Cost Rs. 3882/- per MT (excluding all taxes & freight)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost = Cost as per the above table + R1 + R2 + R3.

R1 = Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of HT Wire = $(H2 - H1) / 1000 \times Wh$.

R2 = Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of HR Coil = $(R2 - R1) / 1000 \times Wr$.

R3 = Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$.

H1 = Rs. 52,500/- H2 = Cost of HT Wire (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

R1 = Rs. 45,500/- R2 = Cost of HR Coil (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3882/- C2 = Cost of Cement (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate

Wh = Weight of HT Wire required (Kg.) per Meter of pipe.

Wc = Weight of Cement required (Kg.) per Meter of pipe.

Wr = Weight of HR Coil required (kg) per Meter of pipe.

Note: 1) The above formula for calculation of revised cost to be used for preparation of Estimates only.

13. S o R FOR BAR WRAPPED STEEL CYLINDRICAL (BWSC) PIPES FOR THE YEAR 2018-19

S.No.	Description											
1	Bar Wrapped Steel Cylindrical (BWSC) pipes conforming to IS 15155 - 2002, ex-factory excluding transportation and all taxes., for bar wrapped steel cylindrical pipes for the following Field/Site Test Pressures.(The manufacture shall design the pipes as per the IS Code 784-2001)											
	Size	Unit	4 -12 Kg/cm ²	14 Kg/cm ²	16 Kg/cm ²	18 Kg/cm ²	20 Kg/cm ²	22 Kg/cm ²	24 Kg/cm ²	26 Kg/cm ²	28 Kg/cm ²	30 Kg/cm ²
	250 MM DIA.	Meter	2314	2314	2314	2314	2314	2314	2573	2654	2753	2823
	300 MM DIA.	Meter	2579	2579	2579	2579	2579	2688	3088	3199	3318	3438
	350 MM DIA.	Meter	3454	3454	3524	3724	3924	4112	4302	4503	4753	4933
	400 MM DIA.	Meter	3779	3878	3915	4177	4421	4683	4736	5234	5506	5700
	450 MM DIA.	Meter	3737	3834	3865	4125	4366	4625	4634	5134	5393	5633
	500 MM DIA.	Meter	4150	4165	4429	4729	5050	5325	5675	6355	6683	7111
	600 MM DIA.	Meter	5110	5460	5899	6319	6770	7237	7771	8271	8748	9258
	700 MM DIA.	Meter	6234	6814	7393	7974	8632	9308	9929	10773	11353	11943
	800 MM DIA.	Meter	7538	8277	9028	9851	10779	11586	12606	13332	14151	15091
	900 MM DIA.	Meter	9070	9985	10916	11925	12967	14182	15231	16148	17376	18766
	1000 MM DIA.	Meter	10776	11917	13202	14446	15631	16965	18071	19545	21158	22528
	1100 MM DIA.	Meter	14035	14335	15714	17239	19015	20275	22037	23507	25238	27138
	1200 MM DIA.	Meter	15304	16365	18035	19759	21524	23514	25664	27731	29620	31560
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene dia.per cloth, cost of transportation of water and emptying pipe line after completion of field testing.											

Public Health Items												
	250 MM DIA.	Meter	396	396	396	396	396	396	396	396	396	396
	300 MM DIA.	Meter	466	466	466	466	466	466	466	466	466	466
	350 MM DIA.	Meter	552	552	552	552	552	552	552	552	552	552
	400 MM DIA.	Meter	616	616	616	616	616	616	616	616	616	616
	450 MM DIA.	Meter	616	616	616	616	616	616	616	616	616	616
	500 MM DIA.	Meter	772	772	772	772	772	772	772	772	772	772
	600 MM DIA.	Meter	948	948	948	948	948	948	948	948	948	948
	700 MM DIA.	Meter	1106	1106	1106	1106	1106	1106	1106	1106	1106	1106
	800 MM DIA.	Meter	1257	1257	1257	1257	1257	1257	1257	1257	1257	1257
	900 MM DIA.	Meter	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478
	1000 MM DIA.	Meter	1634	1634	1634	1634	1634	1634	1634	1634	1634	1634
	1100 MM DIA.	Meter	1921	1921	1921	1921	1921	1921	1921	1921	1921	1921
	1200 MM DIA.	Meter	2149	2149	2149	2149	2149	2149	2149	2149	2149	2149
3	Conveyance of Bar Wrapped Steel Cylindrical (BWSC) pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)											
	250 MM DIA.	Per KM/M	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
	300 MM DIA.	Per KM/M	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
	350 MM DIA.	Per KM/M	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97

Public Health Items											
	400 MM DIA.	Per KM/M	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
	450 MM DIA.	Per KM/M	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
	500 MM DIA.	Per KM/M	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93
	600 MM DIA.	Per KM/M	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06
	700 MM DIA.	Per KM/M	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
	800 MM DIA.	Per KM/M	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02
	900 MM DIA.	Per KM/M	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27
	1000 MM DIA.	Per KM/M	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
	1100 MM DIA.	Per KM/M	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37
	1200 MM DIA.	Per KM/M	11.68	11.68	11.68	11.68	11.68	11.68	11.68	11.68	11.68

Note: The above rates of BWSC pipes are based on the following raw materials' cost.

HR coil - Rs.45,500/- per MT(Excluding all taxes and freight).

HT Wire rods - Rs.52,500/- per MT (Excluding all taxes and freight).

Cement Cost Rs. 3882/-per MT(Excluding all taxes and freight).

The rates may be revised depending upon the increase/ decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost =Cost as per the above table +R1+R2+R3.

R1= Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of HR Plate $= (H2-H1)/1000 \times W_h$.

R2= Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of wire rods $= (W2-W1)/1000 \times W_w$.

R3= Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of Cement $= (C2-C1)/1000 \times W_{cH1}$ = Rs. 45,500/- H2 = Cost of

HR Plate (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.
Wire rods (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.
Cement (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate
meter of pipe.
Wc= Weight of Cement required (Kg.) per Meter of pipe.
Ww = Weight of wire rods required (kg) per meter of pipe.

W1 = Rs. 52,500/- W2 = Cost of
C1 = Rs. 3882/- C2 = Cost of
Wh=Weight of HR Plate required (Kg.) per

Note: 1) The above formula for calculation of revised cost to be used for preparation of Estimates only.

14. S o R FOR M.S. PIPES FOR THE YEAR 2018-19

Sl.No.	Description	Unit	Thickness in mm	Rate
1	Manufacture, supply and delivery of M.S Spirally Welded Pipes conforming to IS: 3589/2001 including in lining with cement mortar (1:2) 15mm thick using 4 numbers of 6mm dia. M.S. Rings at each end of the pipe and out coating with cement mortar (1:3) 30mm thick by short crating or gunetting duly providing wire mesh of size 50x50x3mm including cost of all materials, labor charges, transportation to anywhere in AP, but excluding all taxes.			
	500 mm dia.	Meter	8.00	9333
	600 mm dia.	Meter	8.00	11094
	700 mm dia.	Meter	8.00	12935
	700 mm dia.	Meter	10.00	15975
	800 mm dia.	Meter	8.00	14834
	800 mm dia.	Meter	10.00	17136
	800 mm dia.	Meter	12.00	20231
	900 mm dia.	Meter	8.00	16566
	900 mm dia.	Meter	10.00	19151
	900 mm dia.	Meter	12.00	21742
	1000 mm dia.	Meter	8.00	18577
	1000 mm dia.	Meter	10.00	21436
	1000 mm dia.	Meter	12.00	24215
	1000 mm dia.	Meter	14.00	27909
	1100 mm dia.	Meter	8.00	21313
	1100 mm dia.	Meter	10.00	24935
	1100 mm dia.	Meter	12.00	28084
	1100 mm dia.	Meter	14.00	32387
	1100 mm dia.	Meter	16.00	36705
	1200 mm dia.	Meter	8.00	23768

	1200 mm dia.	Meter	10.00	27968
	1200 mm dia.	Meter	12.00	31418
	1200 mm dia.	Meter	14.00	34866
	1200 mm dia.	Meter	16.00	39504
	1200 mm dia.	Meter	18.00	44155
	1300 mm dia.	Meter	8.00	26259
	1300 mm dia.	Meter	10.00	30181
	1300 mm dia.	Meter	12.00	34207
	1300 mm dia.	Meter	14.00	37929
	1300 MM DIA.	Meter	16.00	41667
	1300 MM DIA.	Meter	18.00	46560
	1300 MM DIA.	Meter	20.00	51468
	1400 MM DIA.	Meter	8.00	28209
	1400 MM DIA.	Meter	10.00	32420
	1400 MM DIA.	Meter	12.00	36497
	1400 MM DIA.	Meter	14.00	40504
	1400 MM DIA.	Meter	16.00	44518
	1400 MM DIA.	Meter	18.00	49739
	1400 MM DIA.	Meter	20.00	54972
	1400 MM DIA.	Meter	22.00	60219
	1500 MM DIA.	Meter	8.00	30170
	1500 MM DIA.	Meter	10.00	34674
	1500 MM DIA.	Meter	12.00	39066
	1500 MM DIA.	Meter	14.00	43349
	1500 MM DIA.	Meter	16.00	47647
	1500 MM DIA.	Meter	18.00	51948
	1500 MM DIA.	Meter	20.00	57399
	1500 MM DIA.	Meter	22.00	62865
	1500 MM DIA.	Meter	24.00	68344
	1600 MM DIA.	Meter	8.00	32168
	1600 MM DIA.	Meter	10.00	36804
	1600 MM DIA.	Meter	12.00	41356

	1600 MM DIA.	Meter	14.00	45921
	1600 MM DIA.	Meter	16.00	50496
	1600 MM DIA.	Meter	18.00	55081
	1600 MM DIA.	Meter	20.00	60852
	1600 MM DIA.	Meter	22.00	66640
	1600 MM DIA.	Meter	24.00	72440
	1600 MM DIA.	Meter	26.00	78253
	1700 MM DIA.	Meter	8.00	34046
	1700 MM DIA.	Meter	10.00	39091
	1700 MM DIA.	Meter	12.00	43922
	1700 MM DIA.	Meter	14.00	48768
	1700 MM DIA.	Meter	16.00	53619
	1700 MM DIA.	Meter	18.00	58486
	1700 MM DIA.	Meter	20.00	64610
	1700 MM DIA.	Meter	22.00	70753
	1700 MM DIA.	Meter	24.00	76902
	1700 MM DIA.	Meter	26.00	83073
	1700 MM DIA.	Meter	28.00	89253
	1800 MM DIA.	Meter	8.00	36071
	1800 MM DIA.	Meter	10.00	41378
	1800 MM DIA.	Meter	12.00	46490
	1800 MM DIA.	Meter	14.00	51617
	1800 MM DIA.	Meter	16.00	56745
	1800 MM DIA.	Meter	18.00	61894
	1800 MM DIA.	Meter	20.00	67050
	1800 MM DIA.	Meter	22.00	73408
	1800 MM DIA.	Meter	24.00	79781
	1800 MM DIA.	Meter	26.00	86164
	1800 MM DIA.	Meter	28.00	92564
	1800 MM DIA.	Meter	30.00	98975
	1900 MM DIA.	Meter	8.00	36978
	1900 MM DIA.	Meter	10.00	43390
	1900 MM DIA.	Meter	12.00	48777

	1900 MM DIA.	Meter	14.00	54181
	1900 MM DIA.	Meter	16.00	59595
	1900 MM DIA.	Meter	18.00	65024
	1900 MM DIA.	Meter	20.00	70456
	1900 MM DIA.	Meter	22.00	77131
	1900 MM DIA.	Meter	24.00	83820
	1900 MM DIA.	Meter	26.00	90524
	1900 MM DIA.	Meter	28.00	97240
	1900 MM DIA.	Meter	30.00	103972
	1900 MM DIA.	Meter	32.00	110712
	2000 MM DIA.	Meter	8.00	38700
	2000 MM DIA.	Meter	10.00	45403
	2000 MM DIA.	Meter	12.00	51072
	2000 MM DIA.	Meter	14.00	56755
	2000 MM DIA.	Meter	16.00	62449
	2000 MM DIA.	Meter	18.00	68156
	2000 MM DIA.	Meter	20.00	73867
	2000 MM DIA.	Meter	22.00	79553
	2000 MM DIA.	Meter	24.00	86439
	2000 MM DIA.	Meter	26.00	93337
	2000 MM DIA.	Meter	28.00	100251
	2000 MM DIA.	Meter	30.00	107175
	2000 MM DIA.	Meter	32.00	114114
	2000 MM DIA.	Meter	34.00	121065
	2100 MM DIA.	Meter	8.00	40651
	2100 MM DIA.	Meter	10.00	47689
	2100 MM DIA.	Meter	12.00	53639
	2100 MM DIA.	Meter	14.00	59588
	2100 MM DIA.	Meter	16.00	65573
	2100 MM DIA.	Meter	18.00	71557
	2100 MM DIA.	Meter	20.00	77552
	2100 MM DIA.	Meter	22.00	83562
	2100 MM DIA.	Meter	24.00	90792
	2100 MM DIA.	Meter	26.00	98034

	2100 MM DIA.	Meter	28.00	105291
	2100 MM DIA.	Meter	30.00	112559
	2100 MM DIA.	Meter	32.00	119843
	2100 MM DIA.	Meter	34.00	127139
	2100 MM DIA.	Meter	36.00	134445
	2200 MM DIA.	Meter	8.00	42370
	2200 MM DIA.	Meter	10.00	49701
	2200 MM DIA.	Meter	12.00	55934
	2200 MM DIA.	Meter	14.00	62172
	2200 MM DIA.	Meter	16.00	68427
	2200 MM DIA.	Meter	18.00	74686
	2200 MM DIA.	Meter	20.00	80964
	2200 MM DIA.	Meter	22.00	87254
	2200 MM DIA.	Meter	26.00	102354
	2200 MM DIA.	Meter	28.00	109923
	2200 MM DIA.	Meter	30.00	117504
	2200 MM DIA.	Meter	32.00	125100
	2200 MM DIA.	Meter	34.00	132712
	2200 MM DIA.	Meter	36.00	140334
	2200 MM DIA.	Meter	38.00	147971
	2300 MM DIA.	Meter	10.00	47649
	2300 MM DIA.	Meter	12.00	58498
	2300 MM DIA.	Meter	16.00	70375
	2300 MM DIA.	Meter	18.00	78092
	2300 MM DIA.	Meter	20.00	84649
	2300 MM DIA.	Meter	22.00	91212
	2300 MM DIA.	Meter	26.00	104474
	2300 MM DIA.	Meter	28.00	112646
	2300 MM DIA.	Meter	30.00	120878
	2300 MM DIA.	Meter	32.00	129952
	2300 MM DIA.	Meter	34.00	137257
	2300 MM DIA.	Meter	36.00	145496
	2300 MM DIA.	Meter	38.00	153793
	2300 MM DIA.	Meter	40.00	162047

	2400MM DIA.	Meter	10.00	54000
	2400 MM DIA.	Meter	12.00	60789
	2400 MM DIA.	Meter	14.00	68519
	2400 MM DIA.	Meter	16.00	75335
	2400 MM DIA.	Meter	18.00	82154
	2400 MM DIA.	Meter	20.00	88994
	2400 MM DIA.	Meter	22.00	96684
	2400 MM DIA.	Meter	26.00	104922
	2400 MM DIA.	Meter	28.00	112168
	2400 MM DIA.	Meter	30.00	119427
	2400 MM DIA.	Meter	32.00	126697
	2400 MM DIA.	Meter	34.00	133977
	2400 MM DIA.	Meter	36.00	141273
	2400 MM DIA.	Meter	38.00	148577
	2400 MM DIA.	Meter	40.00	149629
	2400 MM DIA.	Meter	42.00	156952
	2500 MM DIA.	Meter	10.00	56288
	2500 MM DIA.	Meter	14.00	70436
	2500 MM DIA.	Meter	16.00	77527
	2500 MM DIA.	Meter	18.00	84631
	2500 MM DIA.	Meter	20.00	91744
	2500 MM DIA.	Meter	22.00	98871
	2500 MM DIA.	Meter	28.00	124514
	2500 MM DIA.	Meter	30.00	133091
	2500 MM DIA.	Meter	34.00	146080
	2500 MM DIA.	Meter	36.00	155231
	2500 MM DIA.	Meter	38.00	164439
	2500 MM DIA.	Meter	40.00	173660
	2500 MM DIA.	Meter	42.00	182928
	2500 MM DIA.	Meter	44.00	192146
	2500 MM DIA.	Meter	46.00	201422
	2600 MM DIA.	Meter	12.00	60119
	2600 MM DIA.	Meter	14.00	73008

	2600 MM DIA.	Meter	16.00	80381
	2600 MM DIA.	Meter	18.00	87763
	2600 MM DIA.	Meter	20.00	95158
	2600 MM DIA.	Meter	22.00	102561
	2600 MM DIA.	Meter	32.00	146940
	2600 MM DIA.	Meter	34.00	155858
	2600 MM DIA.	Meter	36.00	164784
	2600 MM DIA.	Meter	38.00	173726
	2600 MM DIA.	Meter	40.00	182682
	2600 MM DIA.	Meter	42.00	191652
	2600 MM DIA.	Meter	44.00	200634
	2600 MM DIA.	Meter	46.00	209628
	2600 MM DIA.	Meter	48.00	218638
2	Cost of Laying, Jointing, Hydrostatic Filed Test Pressure, Including Cost of Site Welding, Jointing Materials And Cost of Transportation of Water Including Emptying Pipe Line After Completion Of Field Testing			
	400 MM DIA.	Meter		682
	500 MM DIA.	Meter		849
	600 MM DIA.	Meter		1044
	700 MM DIA.	Meter		1212
	800 MM DIA.	Meter		1383
	900 MM DIA.	Meter		1626
	1000 MM DIA.	Meter		1795
	1100 MM DIA.	Meter		2112
	1200 MM DIA.	Meter		2366
	1300 MM DIA.	Meter		2719
	1400 MM DIA.	Meter		3130
	1500 MM DIA.	Meter		3540
	1600 MM DIA.	Meter		3731
	1700 MM DIA.	Meter		3946
	1800 MM DIA.	Meter		4463
	1900 MM DIA.	Meter		5201
	2000 MM DIA.	Meter		6531
	2100 MM DIA.	Meter		7472
	2200 MM DIA.	Meter		8393
	2300 MM DIA.	Meter		10239

	2400 MM DIA.	Meter		12521
	2500 MM DIA.	Meter		14542
	2600 MM DIA.	Meter		16370

The above rates of MS Spiral pipes are based on the following raw materials cost.

MS Plates = Rs49,000/- Per MT.(Excluding all taxes and freight).

The rates may be revised depending upon the increase/decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost = Cost of the pipe as per the above table +R₁

$R_1 = (M_2 - M_1) / 1000 \times W_m$

M₁ = Rs 49,000/-

M₂ = Cost of MS Plates at the time of preparation of estimate excluding all taxes and freight

W_m = Weight of MS Plates in Kg's per meter of pipe

15. S.S. RATES FOR H.D.P.E PIPES FOR THE YEAR 2018-19. (PE - 80 Grade)

Sl.No	Description	4.0 kg/sqcm
1	Manufacture, Supply, & Delivery of HDPE pipes conforming to IS 4984 - 1995 including transportation to anywhere in A.P, excluding all taxes (Supply up to 90 mm dia. in coil & above 90 mm dia. straight Length)	
	Rate per Meter	
	OD 40 mm	38
	OD 50 mm	56
	OD 63 mm	76
	OD 75 mm	104
	OD 90 mm	150
	OD 110 mm	225
	OD 125 mm	288
	OD 140 mm	358
	OD 160 mm	469
	OD 180 mm	592
	OD 200 mm	723
	OD 225 mm	917
	OD 250 mm	1135
	OD 280 mm	1414
	OD 315 mm	1798
	OD 355 mm	2342
	OD 400 mm	3035
	OD 450 mm	3858
	OD 500 mm	4738
	OD 560 mm	5867
	OD 630 mm	7421
	OD 710 mm	9430
	OD 800 mm	11935
	OD 900 mm	15123
	OD 1000 mm	18624

Note: - Reliance Industries Resin cost adopted for the above rates are

For PE - 80 grade Rs.107795/- per MT. (Excluding all taxes).

The variation in cost of HDPE pipes due to increase / decrease in raw material cost shall be allowed as per the following price variation formula.

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. per Meter (Excluding all taxes).

P1 = Existing pipe price in Rs. per Meter (Excluding all taxes).

A2 = Revised price of raw material Rs. per MT excluding all taxes.

A1 = Existing price of raw material Rs. Per MT excluding all taxes

M = Weight of pipe in Kg's per Meter as per weight chart.

The above formula for calculation of revised cost to be used for preparation of Estimates only.

16. S o R FOR H.D.P.E PIPES FOR THE YEAR 2018-19. (PE - 100 Grades)

Sl. No.	Description	6.0 kg/sqcm	8.0 kg/sqcm	10.0 kg/sqcm	12.5 kg/sqcm	16.0 kg/sqcm
1	Manufacture, Supply, & Delivery of HDPE Pipes conforming to IS 4984 - 1995 including transportation to anywhere in A.P, excluding all taxes (Supply up to 90 mm dia. in coil & above 90 mm dia. straight length.)					
	Rate per Meter					
	OD 20 mm					23
	OD 25 mm					41
	OD 32 mm			42	47	66
	OD 40 mm		54	64	72	102
	OD 50 mm	66	81	99	113	158
	OD 63 mm	99	125	151	176	246
	OD 75 mm	140	178	213	255	349
	OD 90 mm	197	254	304	363	505
	OD 110 mm	298	378	450	553	752
	OD 125 mm	380	488	586	733	967
	OD 140 mm	477	610	735	926	1218
	OD 160 mm	625	796	956	1197	1585
	OD 180 mm	786	1006	1210	1523	1997
	OD 200 mm	973	1244	1492	1891	2466
	OD 225 mm	1256	1605	1931	2377	3117
	OD 250 mm	1545	1983	2384	2948	3851
	OD 280 mm	1936	2482	2981	3684	4834
	OD 315 mm	2454	3143	3778	4646	6113
	OD 355 mm	3079	3939	4739	5718	7815
	OD 400 mm	4054	5179	6219	8119	10080
	OD 450 mm	5039	6461	7772	10266	12676
	OD 500 mm	6231	7967	9587	12678	15167
	OD 560 mm	7241	9268	11081	14212	
	OD 630 mm	9131	11726	14038	16842	

	OD 710 mm	11614	14858	17830		
	OD 800 mm	14738	18866	22705		
	OD 900 mm	18670	23882			
	OD 1000 mm	23023				

Note: Reliance Industries Resin cost adopted for the above rates are

For PE - 100 grade Rs.108382/-per MT. (Excluding all taxes).

The variation in cost of HDPE pipes due to increase / decrease in raw material cost shall be allowed as per the following price variation formula.

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. per Meter (Excluding all taxes).

P1 = Existing pipe price in Rs. per Meter (Excluding all taxes).

A2 = Revised price of raw material Rs. per MT excluding all taxes

A1 = Existing price of raw material Rs. per MT excluding all taxes

M = Weight of pipe in Kg's per Meter as per weight chart.

The above formula for calculation of revised cost to be used for preparation of Estimates only.

17.HDPE PIPES – (PE –100 Grade) SEWER LINES FOR THE YEAR 2018-19

Sl. No	Description	6.0 kg/ sqcm	8.0 kg/ sqcm	10.0 kg/ sqcm	12.5 kg/ sqcm	16.0 kg/ sqcm
1	Manufacture, Supply, & Delivery of HDPE Pipes are conforming to IS 14333 - 2000 for using underground drainage and sewerage systems including transportation to anywhere in A.P, excluding all taxes (Supply up to 90 mm drain coil & above 90 mm dia. straight length)					
	Rate per Meter					
	OD 63mm	108	137	164	195	233
	OD 75 mm	153	196	233	278	331
	OD 90 mm	218	279	332	395	478
	OD 110 mm	315	398	475	570	680
	OD 125 mm	402	514	615	728	880
	OD 140 mm	503	640	770	917	1104
	OD 160 mm	655	836	1005	1171	1437
	OD 180 mm	826	1060	1271	1510	1818
	OD 200 mm	1023	1307	1567	1870	2241
	OD 225 mm	1290	1648	1982	2357	2839
	OD 250 mm	1592	2039	2446	2911	3497
	OD 280 mm	1990	2549	3050	3659	4392
	OD 315 mm	2520	3228	3925	4617	5553
	OD 355 mm	3192	4089	4919	5870	7045
	OD 400 mm	4218	5398	6481	7727	9267
	OD 450 mm	5324	6828	8207	9763	
	OD 500 mm	6581	8418	10122	12066	
	OD 560 mm	8228	10550	12700		
	OD 630 mm	10418	13354	16045		
	OD 710 mm	13498	17292			
	OD 800 mm	17125				
	OD 900 mm	21690				
	OD 1000 mm	26798				

Note: Reliance Industries Resin cost adopted for the above rates are

For PE - 100 grade Rs.108382/-per MT. (Excluding all taxes).

The variation in cost of HDPE pipes due to increase / decrease in raw material cost shall be

allowed as per the following price variation formula.

$$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95 \text{ (for increase in raw material cost)}$$

$$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95 \text{ (for decrease in raw material cost)}$$

P2 = Revised pipe price in Rs. per Meter excluding all taxes

P1 = Existing pipe price in Rs. per Meter excluding all taxes

A2 = Revised price of raw material Rs. per MT excluding all taxes

A1 = Existing price of raw material Rs. per MT excluding all taxes

M = Weight of pipe in Kgs per Meter as per weight chart.

The above formula for calculation of revised cost to be used for preparation of Estimates only.

18. S o R FOR H.D.P.E- (PE –100 Grade) FITTINGS FOR THE YEAR 2018-19.

I	Manufacture, Supply, & Delivery of HDPE (PE –100 Grade) fittings conforming to IS 4984 - 1995 including transportation to anywhere in A.P. Excluding all taxes.	
I (a)	PIPE ENDS LONG NECK	Rate per Each
	OD 50 mm	76
	OD 63 mm	96
	OD 75 mm	116
	OD 90 mm	161
	OD 110 mm	223
	OD 125 mm	401
	OD 140 mm	375
	OD 160 mm	524
	OD 180 mm	798
	OD 200 mm	1026
	OD 225 mm	1179
	OD 250 mm	1381
	OD 280 mm	1542
	OD 315 mm	1778
	OD 355 mm	3718
	OD 400 mm	4954
	OD 450 mm	8242
	OD 500 mm	9173
(b)	MS FLANGES	Rate per Each
	OD 50 mm	93
	OD 63 mm	117
	OD 75 mm	149
	OD 90 mm	161
	OD 110 mm	169
	OD 125 mm	232
	OD 140 mm	251
	OD 160 mm	331
	OD 180 mm	466
	OD 200 mm	604
	OD 225 mm	757
	OD 250 mm	893
	OD 280 mm	1013
	OD 315 mm	1191
	OD 355 mm	2017
	OD 400 mm	2502
	OD 450 mm	3266
	OD 500 mm	3740
(c)	END CAPS	Rate per Each

	OD 50 mm	55
	OD 63 mm	66
	OD 75 mm	83
	OD 90 mm	111
	OD 110 mm	126
	OD 125 mm	175
	OD 140 mm	204
	OD 160 mm	312
	OD 180 mm	506
	OD 200 mm	554
	OD 225 mm	577
	OD 250 mm	820
	OD 280 mm	840
	OD 315 mm	1148
	OD 355 mm	1772
	OD 400 mm	3095
	OD 450 mm	4977
	OD 500 mm	9173
(d)	REDUCERS	Rate per Each
	OD 50 mm x 63 mm	76
	OD 63 mm x 75 mm	111
	OD 75 mm x 90 mm	182
	OD 90 mm x 110 mm	250
	OD 110 mm x 125 mm	382
	OD 125 mm x 140 mm	529
	OD 140 mm x 160 mm	738
	OD 160 mm x 180 mm	1022
	OD 180 mm x 200 mm	1320
	OD 200 mm x 225 mm	1621
	OD 225 mm x 250 mm	2209
	OD 250 mm x 280 mm	3137
	OD 280 mm x 315 mm	4436
	OD 315 mm x 355 mm	5088
	OD 355 mm x 400 mm	7178
	OD 400 mm x 450 mm	7447
	OD 450 mm x 500 mm	9548

(e)	TEES	Rate per Each
	OD 50 mm	106
	OD 63 mm	168
	OD 75 mm	204
	OD 90 mm	359

	OD 110 mm	425
	OD 125 mm	639
	OD 140 mm	881
	OD 160 mm	1517
	OD 180 mm	2057
	OD 200 mm	2833
	OD 225 mm	4022
	OD 250 mm	5507
	OD 280 mm	7711
	OD 315 mm	10989
	OD 355 mm	15671
	OD 400 mm	22953
	OD 450 mm	32603
	OD 500 mm	44776
(f)	BENDS Rate per Each	
	OD 50 mm	66
	OD 63 mm	148
	OD 75 mm	194
	OD 90 mm	330
	OD 110 mm	435
	OD 125 mm	642
	OD 140 mm	846
	OD 160 mm	1262
	OD 180 mm	1811
	OD 200 mm	2453
	OD 225 mm	3481
	OD 250 mm	4770
	OD 280 mm	6878
	OD 315 mm	9513
	OD 355 mm	13186
	OD 400 mm	19892
	OD 450 mm	29242
	OD 500 mm	39644

II	Providing and Fixing electro Fusion Ferrule Tapping saddle manufactured from virgin resin of PE-80/PE-100 having blue/black color using food grade compounded raw material with quality assurance certificate from quality agencies like CIPET etc. For usage in drinking water system and having working pressure of 10 bar. The cost shall include testing of all materials, labor all taxes (central & state), inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers.	
	SIZE	Rate Each
	(Main pipe outer dia.meter in mm & Tapping size in Inches)	
	63x1/2"	967
	63 x3/4"	967
	63 x1"	967
	63 x1/2"	967
	75 x1/2"	967
	75 x3/4"	967
	75 x1	967
	90 x1/2"	967
	90 x3/4"	967
	90 x1"	967
	90 x 1 1/4"	1254
	90 x 1 1/2"	1254
	90 x2"	1254
	110x1/2"	967
	110 x3/4"	967
	110 x1"	967
	110 x 1 1/4"	1254
	110x1 1/2"	1254
	110x2"	1254
	160 x1/2"	967
	160 x3/4"	967
	160 x1"	967
	160 x 1 1/4"	1371
	160 x 1 1/2"	1371
	160 x 2"	1371
	200 x 1/2"	1371
	200 x 3/4"	1371

	200 x 1"	1371
	200 x 1 1/4"	1973
	200 x 2"	1973
	250 x 1 1/2"	1390
	250 x 3/4"	1390
	250 x 1"	1390
	250 x 1 1/4"	2009
	250 x 1 1/2"	2009
	250 x 2"	2009
	315 x 1 1/2"	1655
	315 x 3/4"	1655
	315x1"	1655
	315x1 1/4"	2248
	315x1 1/2"	2248
	315x2"	2248

19. S o R FOR Double Wall Corrugated (DWC) PipesFOR THE YEAR 2018-19

S.No.	Description	Unit	SoR RATES 2018-19
1	2	3	4
I	Manufacture, supply, & delivery of (DWC) structured wall polyethylene/polypropylene piping system with non smooth external annular corrugated and smooth internal surface (Double Wall) for non pressure sewage & Drainage application pipes of standard length 6 m, grade conforming to IS 16098 (part-II: 2013) excluding transportation to anywhere in A.P, excluding all taxes.	Meter	
	Inner Dia. (mm)		
	Stiffness Class SN-8		
	100		158.00
	135		236.00
	150		279.00
	170		337.00
	200		463.00
	250		715.00
	300		961.00
	400		1,650.00
	500		2,535.00
	600		4,370.00
	800		7,245.00
	1000		11,799.00

20. SoR FOR PVC PIPES FOR THE YEAR 2018-19

Sl. No.	Description	TEST PRESSURE		
		4.0 Kgs/cm ²	6 Kgs/cm ²	10 Kgs/cm ²
1	Manufacture, Supply and Delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (3 rd revision) with bell ends (Socket) as per specification in light Grey/Natural Ivory Grey/ Any other Color (except White) inclusive of transportation to the sub-divisional stores anywhere in AP excluding all taxes.			
	DIA. IN MM	Rate/Meter		
	20			16
	25			24
	32			36
	40		34	55
	50		51	85
	63	56	80	121
	75	81	111	176
	90	112	160	249
	110	162	231	371
	125	211	295	485
	140	264	380	603
	160	348	492	789
	180	443	635	1011
	200	539	772	1231
	225	722	1042	1657
	250	836	1275	2010
	280	1095	1610	2545
	315	1386	2024	3214
	355	1815	2636	
	400	2289	3353	

Note:

The resin cost adopted for the above rates is Rs.77,650/- per MT (excluding all taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. PerMeter, P1 = Existing pipe price in Rs. PerMeter

A2 = Revised price of raw material Rs. Per MT,

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Meter as per weight chart.

The above formula for calculation of revised cost to be used for preparation of Estimates only.

21. SoR FOR NON- PRESSURE P.V.C.U PIPES FOR THE YEAR 2018-19

S. No	Description	
1	Manufacture, Supply, & Delivery of Unplasticised Non-pressure polyvinyl chloride(PVC-U) pipes of dark (any shade of brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) <u>with solvent cement jointing</u> as per specification inclusive of transportation to the sub-divisional stores anywhere in A.P, excluding all taxes	
	Pipe Series (S25)	Rate per Meter
	OD 160 mm	293
	OD 200 mm	445
	OD 250mm	690
	OD 315 mm	1089
	Pipe Series (S20)	
	OD 125 mm	226
	OD 160 mm	363
	OD 200 mm	550
	OD 250mm	857
	OD 315 mm	1346
	Pipe Series (S16.5)	
	OD 110 mm	199
	OD 125 mm	269
	OD 160 mm	421
	OD 200 mm	654
	OD 250mm	1014
	OD 315 mm	1601

Note: The resin cost adopted for the above rates is Rs.77,650/- per MT (Excluding all taxes).

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. perMeter

P1 = Existing pipe price in Rs. perMeter

A2 = Revised price of raw material Rs. per MT

A1 = Existing price of raw material Rs. per MT

M = Weight of pipe in Kg's per Meter as per weight chart.

The above formula for calculation of revised cost to be used for preparation of Estimates only.

22. SoR FOR NON- PRESSURE P.V.C.U PIPES FOR THE YEAR 2018-19

S. No	Description	
1	Manufacture, supply, & delivery of un-plasticized Non-Pressure Polyvinyl Chloride(PVC-U) pipes of dark (any shade of Brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) <u>with Elastomeric Seal Ring Joints</u> (Ringtite PVC Pipes) as per specification inclusive of transportation to the Sub-Divisional stores anywhere in A.P, excluding all taxes	
	Pipe Series (S25)	Rate per Meter
	OD 160 mm	312
	OD 200 mm	474
	OD 250mm	737
	OD 315 mm	1160
	Pipe Series (S20)	
	OD 125 mm	243
	OD 160 mm	384
	OD 200 mm	584
	OD 250mm	911
	OD 315 mm	1430
	Pipe Series (S16.5)	
	OD 110 mm	212
	OD 125 mm	286
	OD 160 mm	449
	OD 200 mm	691
	OD 250mm	1075
	OD 315 mm	1697

Note: The resin cost adopted for the above rates is Rs.77,650/- per MT (Excluding all taxes). The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. per Meter

P1 = Existing pipe price in Rs. per Meter

A2 = Revised price of raw material Rs. per MT

A1 = Existing price of raw material Rs. per MT

M = Weight of pipe in Kg's per Meter as per weight chart.

The above formula for calculation of revised cost to be used for preparation of Estimates only.

23. SoR FOR CENTRIFUGALLY CAST (SPUN)IRON PRESSURE PIPES

Sl. No.	Description	Unit	S.S. Rates for 2018-19		
I	Socket and Spigot Centrifugally Cast (Spun) Iron pressure pipes for water, Gas and Sewage conforming to specification No: IS 1536/1989 (third revision) with amdt. No: 1 & 2 in standard lengths of 3.66 m, 4 m, 4.5m, 5 m, 5.5 m & 6 m and details given below, suitable either for lead jointing or rubber gasket (push on) jointing at purchasers option at ex-factory excluding transportation and all taxes.				
	Nominal dia. (in MM)		LA Class	A Class	B Class
	80	Rmt	840	913	978
	100	Rmt	1041	1146	1222
	125	Rmt	1344	1468	1579
	150	Rmt	1626	1782	1914
	200	Rmt	2378	2580	2784
	250	Rmt	3205	3489	3763
	300	Rmt	4133	4518	4881
	350	Rmt	5206	5647	6107
	400	Rmt	6336	6923	7453
	450	Rmt	7640	8393	9027
	500	Rmt	8943	9743	10510
	600	Rmt	11918	13011	14052
	700	Rmt	15381	16804	18100
	750	Rmt	17225	18833	20370
	800	Rmt	19283	21010	22660
	900	Rmt	23487	25626	27684
	1000	Rmt	28217	30825	33214
II	Conveyance of Centrifugally Cast (Spun) Iron Pressure Pipes and accessories including loading at Factory, un-loading at site and stacking for the following sizes. (The Minimum distance/lead in Km for destination below 100 Km to be taken as 100 Km)				
	SIZE IN MM UNIT		LA	A	B
	80 Per KM/RMT		0.29	0.29	0.29
	100 Per KM/RMT		0.29	0.29	0.29
	125 Per KM/RMT		0.44	0.44	0.44
	150 Per KM/RMT		0.44	0.44	0.44
	200 Per KM/RMT		0.74	0.74	0.74
	250 Per KM/RMT		0.89	0.89	0.89

	300 Per KM/RMT		1.17	1.17	1.17
	350 Per KM/RMT		1.61	1.61	1.61
	400 Per KM/RMT		1.90	1.90	1.90
	450 Per KM/RMT		2.20	2.20	2.20
	500 Per KM/RMT		2.63	2.63	2.63
	600 Per KM/RMT		2.63	2.63	2.63
	700 Per KM/RMT		2.63	2.63	2.63
	750 Per KM/RMT		4.38	4.38	4.38
	800 Per KM/RMT		7.45	7.45	7.45
	900 Per KM/RMT		7.45	7.45	7.45
	1000 Per KM/RMT		7.45	7.45	7.45

Note:Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$$P2 = P1 + (R2 - R1) / 1000 * M * 1.0$$

Where M= Weight of pipe in kg perMeter.

P2 = Revised rate of pipe in Rs. per Rmt

P1 = Rate of pipe in Rs. per Rmt as per above table.

R2 = Price of Pig Iron (Rs per MT excluding all taxes) at the time of preparation of estimate.

R1 = Price of Pig Iron (Rs per MT excluding all taxes) at the time of preparation of SSR =Rs. 31000/-

The above formula for calculation of revised cost to be used for preparation of Estimates only.

24.S o R FOR DUCTILE IRON PRESSURE PIPES FOR THE YEAR 2018-19

Sl. No.	Description	Unit	Class of Pipe	
1	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage with <u>Socket Spigot ends</u> conforming to IS.: 8329/2000 in standard working lengths of 4, 5 5.5 & 6 meter for classification K9 & K7 suitable for push-on-joint (rubber gasket d jointing) with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation and all taxes.			
	Nominal Dia. in mm	Rmt	K7	K9
	100	Rmt	842	1007
	150	Rmt	1210	1499
	200	Rmt	1651	1992
	250	Rmt	2202	2641
	300	Rmt	2811	3375
	350	Rmt	3623	4273
	400	Rmt	4346	5097
	450	Rmt	5266	6157
	500	Rmt	6204	7091
	600	Rmt	8331	9466
	700	Rmt	10590	11943
	750	Rmt	11992	13559
	800	Rmt	13143	14732
	900	Rmt	16203	18125
	1000	Rmt	19077	21284
	1100	Rmt		22994
	1200	Rmt		26896
2	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage <u>with plain ends</u> conforming to IS:8329/2000in standard working lengths of 4, 5, 5.5 & 6 meter for classification K9 & K7 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation and all taxes.			
	Nominal Dia. in mm		K7	K9
	100	Rmt	748	959
	150	Rmt	1107	1414
	200	Rmt	1533	1918
	250	Rmt	1994	2547
	300	Rmt	2642	3253
	350	Rmt	3332	4042
	400	Rmt	4027	4875
	450	Rmt	4816	5762

	500	Rmt	5742	6876
	600	Rmt	7594	8875
	700	Rmt	10029	11259
	750	Rmt	11214	12578
	800	Rmt	12403	13901
	900	Rmt	15013	16792
	1000	Rmt	17830	19983
	1100	Rmt		21302
	1200	Rmt		22422

3

Centrifugally cast (Spun) Ductile Iron pressure pipes with flanged (welded) ends for water, gas, sewage conforming to IS: 8329/2000 in standard working lengths of 1,2,3, 4, 5 mts for classification K9 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation and all taxes.

	Nominal Dia. in mm	Unit	1.0 Mt. Length	2.0 Mt. Length	3.0 Mt. Length	4.0 Mt. Length	5.0 Mt. Length
	100	Each	3321	4269	5214	6162	8187
	150	Each	5325	7127	6279	6927	8109
	200	Each	7071	9535	8979	10038	11781
	250	Each	9236	12526	12017	13606	15995
	300	Each	11569	15731	15812	17961	21135
	350	Each	18153	23310	19881	22696	26712
	400	Each	22341	28565	28342	31249	36221
	450	Each	26979	34325	34776	37844	43838
	500	Each	32740	41357	41668	45194	52264
	600	Each	46365	57708	50149	54247	61513
	700	Each	55185	69581	69078	73994	84937
	800	Each	68016	85845	84068	90654	104528
	900	Each	81087	102636	103680	111891	129032
	1000	Each	104114	129748	124237	134361	159475
	1100	Each	120935	147180	150986	160750	184196

4

Conveyance of Ductile Iron Pressure Pipes and accessories including loading at Factory, un-loading at site and stacking for the following sizes

Class

WELDED
DOUBLE
FLANGED
PIPES

SIZE IN MM	UNIT	K7	K9	K9
100	Per KM/RMT	0.23	0.23	0.35
150	Per KM/RMT	0.35	0.35	0.46
200	Per KM/RMT	0.35	0.46	0.69
250	Per KM/RMT	0.46	0.58	0.92

	300	Per KM/RMT	0.69	0.69	1.16
	350	Per KM/RMT	0.81	0.92	1.39
	400	Per KM/RMT	0.92	1.04	1.62
	450	Per KM/RMT	1.16	1.27	1.96
	500	Per KM/RMT	1.39	1.50	2.31
	600	Per KM/RMT	1.96	1.96	3.00
	700	Per KM/RMT	2.89	2.89	4.39
	750	Per KM/RMT	3.47	3.47	5.31
	800	Per KM/RMT	5.89	5.89	8.78
	900	Per KM/RMT	5.89	5.89	8.78
	1000	Per KM/RMT	5.89	5.89	8.78
	1100	Per KM/RMT	5.89	5.89	8.78
	1200	Per KM/RMT	6.30	6.30	
5	Supply and Delivery of Polyethylene (PE) Sleeves for Ductile Iron Pipes used to guard the pipe against corrosion.				
	DIA. IN MM				
	100 MM DIA.		RMT		45.00
	150 MM DIA.		RMT		55.00
	200 MM DIA.		RMT		70.00
	250 MM DIA.		RMT		81.00
	300 MM DIA.		RMT		89.00
	350 MM DIA.		RMT		100.00
	400 MM DIA.		RMT		140.00
	450 MM DIA.		RMT		140.00
	500 MM DIA.		RMT		169.00
	600 MM DIA.		RMT		169.00
	700 MM DIA.		RMT		220.00
	750 MM DIA.		RMT		220.00
	800 MM DIA.		RMT		220.00
	900 MM DIA.		RMT		250.00
	1000 MM DIA.		RMT		250.00
	1100 MM DIA.		RMT		308.00
6	Additional price for HAC(high alumina cement mortar lining)				
	DIA. IN MM				
	100 MM DIA.		RMT		67.00
	150 MM DIA.		RMT		88.00
	200 MM DIA.		RMT		108.00
	250 MM DIA.		RMT		129.00

	300 MM DIA.	RMT	138.00
	350 MM DIA.	RMT	157.00
	400 MM DIA.	RMT	216.00
	450 MM DIA.	RMT	216.00
	500 MM DIA.	RMT	266.00
	600 MM DIA.	RMT	266.00
	700 MM DIA.	RMT	341.00
	750 MM DIA.	RMT	341.00
	800 MM DIA.	RMT	341.00
	900 MM DIA.	RMT	389.00
	1000 MM DIA.	RMT	389.00
	1100 MM DIA.	RMT	389.00
	1200 MM DIA.	RMT	389.00

Note: Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P2 = P1 + (R2 - R1) / 1000 * M * 0.96$, Where

M = Weight of pipe in kg per Meter as per I.S.8329-2000.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron(Rs per MT)) at the time of preparation of estimate.

R1 = Price of Pig Iron(Rs per MT) at the time of preparation

OfSoR =Rs.31000/- (Excluding all taxes).

The above formula for calculation of revised cost to be used for preparation of Estimates only.

25. S o R FOR DUCTILE IRON FITTINGS FOR THE YEAR 2018-19

Sl. No.	Description	Unit	Rate
	Centrifugally cast (spun) Ductile Iron Fittings conforming to IS:9523/2000 having dimensions as per table. The rates mentioned here under are for fittings, zinc coated externally with inside mortar lining (with finishing as per class 13/IS 9523/2000) (ex-works) Excluding Transportation and all Taxes.		
I	DI double socket branch flange Tee		
	Up to 500 x 500 mm dia.	Kg	115.64
	Above 500 x 500 mm dia.	Kg	128.64
II	DI All Socket Tees		
	Up to 300 x 300 mm dia.	Kg	115.64
	Above 300 x 300 mm dia.	Kg	128.64
III	DI Double socket Tapers (Reducer)		
	Up to 500 x 450 mm dia.	Kg	115.64
	Above 500 x 450 mm dia.	Kg	128.64
IV	DI Flanged Socket		
	Up to 500 mm dia.	Kg	115.64
	Above 500 mm dia.	Kg	128.64
V	DI Flanged Spigot		
	Up to 500 mm dia.	Kg	115.64
	Above 500 mm dia.	Kg	128.64
VI	DI Double Socket Duck Foot Bend		
	Up to 300mm dia.	Kg	115.64
	Above 300mm dia.	Kg	128.64
VII	DI Double Flange Duck/Foot bend		
	Up to 300 mm dia.	Kg	115.64
	Above 300 mm dia.	Kg	128.64
VIII	DI All socket Cross.		
	Up to 300 x 300 mm dia.	Kg	115.64
	Above 300 x 300 mm dia.	Kg	128.64
IX	DI All Flange Tee		
	Up to 500 x 500 mm dia.	Kg	115.64
	Above 500 x 500 mm dia.	Kg	128.64
X	DI All Flange Cross		
	Up to 300 x 300 mm dia.	Kg	115.64
	Above 300 x 300 mm dia.	Kg	128.64

XI	DI Double Flange Reducer		
	Up to 500 x 450 mm dia.	Kg	115.64
	Above 500 x 450 mm dia.	Kg	128.64
XII	Blank Flange		
	Up to 500 mm dia.	Kg	115.64
	Above 500 mm dia.	Kg	128.64
XIII	Mechanical Joints		
	Up to 300 mm dia.	Kg	115.64
	Above 300 mm dia.	Kg	128.64
XIV	DI Double Socket Bends		
	Up to 500mm dia.	Kg	115.64
	Above 500 mm dia.	Kg	128.64
XV	DI Double Flanged Bends		
	Up to 500mm dia.	Kg	115.64
	Above 500 mm dia.	Kg	128.64

**26. S o R FOR RUBBER GASKETS SUITABLE FOR C.I/ D.I S/S PIPES FOR THE
YEAR 2018-19**

Sl. No.	Description	Unit	Rate
1	2	3	4
1	Manufacture as per BIS: 12820/89 with S.B.R. Quality Rubber confirming to BIS: 5382/85, supply and delivery of Rubber Gaskets suitable for C.I/ D.I S/S pipes anywhere in A.P. F.O.R. Destination departmental stores including cost of material, loading, incidental handling with companies standard packing, transportation, unloading & stacking but excluding all taxes.		
	80mm dia.	Each	39
	100mm dia.	Each	61
	125mm dia.	Each	73
	150mm dia.	Each	89
	200mm dia.	Each	107
	250mm dia.	Each	120
	300mm dia.	Each	183
	350mm dia.	Each	231
	400mm dia.	Each	256
	450mm dia.	Each	299
	500mm dia.	Each	416
	600mm dia.	Each	525
	700mm dia.	Each	698
	750mm dia.	Each	823
	800mm dia.	Each	987
	900mm dia.	Each	1191
	1000mm dia.	Each	1303

27. SoR FOR CI PIPES AND SPECIALS FOR THE YEAR 2018-19

Sl. No.	Description	Quality or sort	Rate/ Kg including packing, forwarding, Transit risk and delivery anywhere in A.P. for the year 2018-19. (Rs.)
1	Manufacture, Supply and Delivery of Cast Iron Pipes and Fittings (spls.) Conforming to IS. No. 7181/1986, 5531/1988, 3950/1979 and C.I.D Joints confirming to is No.8794/1988 at site of work anywhere in A.P. Including, loading, unloading, transportation to site of work stacking at site transit risk and package, excluding taxes and duties.	I.S. No. 7181/1986 5531/1988 3950/1979 & 8794/1988	76.63

Foot Note: The rate of CI pipes, CI Specials and CID Joints etc., which are to be incorporated in the SoR are based on the following raw materials cost.

Pig Iron: Rs.31000/- per M.T. (Excluding all taxes).

Coke : Rs.26,500/- per M.T. (Excluding all taxes).

The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method. For every increase/decrease of Rs.1000/- in the cost of raw materials or part there of proportionately.

In respect of Pig Iron: The increase/decrease in cost of CI Specials per Kg is 3.43%.

In respect of coke: The increase/decrease in cost of CI Specials per Kg is 0.67%.

The above price is at site of work.

Note-1: The above formula for calculation of revised cost to be used for preparation of Estimates only.

28. S o R FOR WATER HAMMER CONTROL DEVICES FOR THE YEAR 2018-19
(Rate Each in Rs.)

Sl. No.	Description	TEST PRESSURE			
		10 Kgs/cm ²	15 Kgs/cm ²	20 Kgs/cm ²	25 Kgs/cm ²
1	Manufacture, Supply and delivery of Air Cushion valves / Quick Released damped Air Valves (QRDA) as per AWWA, Ex-factory excluding transportation and all taxes.				
	DIA. IN MM	Rate/Each	Rate/Each	Rate/Each	Rate/Each
	100	70689	81294	89422	98361
	150	107425	123539	135892	149481
	200	114661	131858	145046	159550
2	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves			

29. S o R FOR VALVES CONFORMING TO IS for normal usage 2018-19.

Sl. No.	Description		
1	Supply, Delivery of D.I double flanged Sluice Valves conforming to IS- 14846 (with up to date amendments, if any) including gear arrangements for the following dia. as per test pressure having Body, Bonnet, Dome, Stool cover, Wedge, Stuffing box, Gland, Thrust plate, Cap/Hand wheel with D.I; Stem, Body seat ring, Wedge facing ring, Bushes, Bolts, Nuts, Pinion and Pinion shaft with Stainless steel (IS 6603) ; Wedge nut, Shoe, Channel with Leaded Tin Bronze (IS 318); Gasket with Neoprene Rubber; Gland packing with Rubber; Gear, Gear housing with Cast Steel excluding all taxes and transportation, etc. complete ISI marked.		
		PN 1.0 (MPa)	PN 1.6 (MPa)
	DIA. IN MM	Rate/Each	
	450	168080	210100
	500	210980	263725
	600	270380	337975
	700	520080	375100
	800	674080	650100
	900	875380	705100
	1000	1425380	842600
	1100	1645380	960850
	1200	1865380	1094225
2	Supply, Delivery of D.I double flanged short/Long body or Wafer Type pattern Butterfly Valves for the following dia. conforming to IS 13095 (with up to date amendments, if any) manually operated having Body, Disc with D.I; Shaft, Seating ring, internal fastenings with Stainless steel (IS: 6603); External bolting with Carbon steel; Seat with Nitrite or EPDM rubber; excluding transportation and all taxes, complete.		
	DIA. IN MM	PN 2.5 (MPa) (Rate/Each)	
	50	14080	
	100	16280	
	150	23980	
	200	43780	
	250	49280	
	300	56980	
	350	69080	
	400	100980	
	450	132880	
	500	190080	
	550	210980	
	600	234080	

	650	270380	
	700	328680	
	750	344080	
	800	369380	
	850	388080	
	900	438680	
	1000	564080	
	1100	674080	
	1200	894080	
3	Supply, Delivery of D.I Double Flanged Swing Check type Reflux valves (Non Return Valves) of following dia. conforming to IS- 5312 (Pts-1&2) (with amendments up to date, if any) having Body, Cover, Door, Bearing holder with D.I; Hinge pin, Door pin, Door suspension pin with Stainless Steel (IS 6603); Body seat ring , Door face ring, Bearing bushes, Plugs for hinge pin with Leaded Tin Bronze (IS 318); Bolts, Nuts with Carbon steel; Gaskets with Rubber; Hinges with Cast steel; excluding transportation and all taxes complete.		
		PN 1.0 (MPa)	PN 1.6 (MPa)
	DIA. IN MM	Rate/Each	
	50	10780	13475
	100	15180	18975
	150	21780	27225
	200	29480	36850
	250	40480	50600
	300	62480	78100
	350	74580	93225
	400	89980	112475
	450	116380	145475
	500	192280	240350
	550	212080	265100
	600	256080	320100
4	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves	

**30. S o R FOR VALVES FOR HEAVY USUAGE in WTPS, STPS, PUMP HOUSES,
PUMPING MAINS & ELSRS 2018-19.**

Sl. No.	Description	TEST PRESSURE		
1	Supply and delivery of "Resilient Seated Soft Sealing" Gate Valves (Sluice Valves) with Body and Bonnet of Ductile Iron GGG-40/SG-400/15 or GGG-50/SG-500/7 or Equivalent as per IS1865, IS:3896-2 and Wedge fully Rubber Lined with food grade quality grade W270 grade EPDM, Replaceable Spindle Nut without gland packing with 3-O ring protection system on the Shaft and Seals of NBR. The Valves should be Vacuum tight and 100% leak proof with face to face dimensions as BS:5163 Type A/IS:14846. All the valves should be with fusion bonded Electrostatic Powder coating both inside and outside (Min 250 Microns)-RAL 5005 with Pocket Less Straight through body Passage conforming to Design standards of DIN-3202F4/BS:5163 Type A Flange drilling as per IS - 1538 excluding all taxes, duties and transportation.			
	DIA. IN MM	PN 1.0 (MPa)	PN 1.6 (MPa)	PN 2.5 (MPa)
	A) Without By-Pass			
	50	7669	7669	14403
	80	9922	9922	17758
	100	11880	12957	20134
	150	18480	20401	33584
	200	23980	29975	56644
	250	30580	38225	84135
	300	56980	70965	136471
	350	78980	98725	399358
	400	100980	126225	406201
2	Supply & Delivery of Tamper Proof DI Flanged Single Chamber Air Release Valves with body & cover made of Ductile Iron Grade GGG-40/SG-400/15 or GGG-50/SG-500/7 or Equivalent as per IS1865, IS:3896-2 with Food Grade Epoxy Powder Coating(EP-P) (Min:250 Micron) inside and Outside of Color Blue RAL 5005. All internal parts such as Float, shell, Cove Bolts etc. made of Austenitic alloy steel of SS AISI 304/316 and DN 50 float of and other components with ABS/PTFE/EPDM/NBR and generally conforming to DIN/BIS/AWWA standards (or) combination Flange drilling as per IS - 1538 and exclusive of all taxes and transportation.			
	DIA. IN MM	PN 1.0 (MPa)	PN 1.6 (MPa)	PN 2.5 (MPa)
	25	4180	5225	
	40	7480	9350	53890
	50	10780	13475	45806
	80	18480	23100	47492
	100	23980	29975	63764
	150	45980	57475	77145
	200	66538	66538	85984
	300	108680	119790	

3	Manufacture, Supply and delivery of DI D/F Tilting disc Swing Check Valves Slanted seated with maximum swing of 59 degree with metallic, corrosion proof and wear resistant seat faces, Body and Disc of ductile cast iron GGG-40/SG-400/15 or GGG-50/SG-500/7 or Equivalent as per IS1865, IS:3896-2 Shafts of stainless steel, shaft bearing of zinc free bronze and Integral body seat face & disc face with nickel-chromium overlay welding and micro finished. All the inside and outside of the body is to be coated with double coating of food grade epoxy liquid lacquer (EP-F) with minimum thickness of 150 microns, color: RAL 5005 Blue face to face dimensions according to EN 558-1/14/DIN 3202-F4, Flange dimensions according to EN1092-2/IS 1538				
	DIA. IN MM	PN 1.0 (MPa)	PN 1.6 (MPa)	PN 2.5 (MPa)	
	a) Without By-Pass				
	80	11880	14850	23760	
	100	16280	20350	32560	
	150	21780	27225	43560	
	200	27280	34100	54560	
	250	39380	49225	78760	
	300	56980	71225	113960	
	b) With By-Pass				
	350	67980	84975	135960	
	400	104280	130350	208560	
	450	149380	186725	298760	
	500	206580	258225	413160	
	550	303380	377520	606760	
	600	369380	461725	738760	
	650	438680	548350	877360	
	700	548680	685850	1097360	
	750	850850	935935		
	800	1100000	1210000		
4	Manufacture, Supply and delivery of DI D/F Butterfly Valves, Body and disc of Ductile Iron of grade GGG-40/SG-400/15 or GGG-50/SG-500/7 or Equivalent as per IS1865, IS:3896-2 Double eccentrically designed Disc., with renewable soft seal on the disc and Integral Body seat face of nickel-chromium overlay welding (Fusion Bonded) micro finished, 100 % leak tight in both directions, Medium free bearings and with minimum thickness of 250 microns Fusion bonded food grade epoxy coating and 1200mm dia. and above food grade liquid Epoxy coating of minimum 150 microns applied on both body and disc inside and outside. Face to face dimensions as per EN558-1/IS 13095 body or IS: 13095 long body design standard as per EN 593/IS 5163 Flange drilling as per EN 1092-2/ IS 1538 the Valve should be suitable for buried application.				
	DIA. IN MM	PN 1.0 (MPa)	PN 1.6 (MPa)	PN 2.5 (MPa)	PN 4.0 (MPa)
	150	19580	24475	39160	146478
	200	27280	34100	54560	178108
	250	38280	47850	76560	249581

	300	47080	58850	94160	262068
	350	65780	82225	131560	285236
	400	87780	109725	175560	436082
	450	98780	123475	197560	-
	500	127380	159225	254760	538878
	600	168080	210100	336160	590468
	700	218680	273350	437360	
	800	279180	348975	558360	
	900	328680	410850	657360	
	1000	454080	567600	908160	
	1100	674080	842600	1348160	
	1200	784080	980100	1568160	
	1400	1098680	1373350	2197360	
	1600	1367080	1708850	2734160	
	1800	2116180	2645225	4232360	
	2000	2547380	3184225	5094760	
	2200	2838880	3548600	5677760	

NOTE:-1) All the prices are ex-go down /ex-factory. Packaging and Transportation extra at 5% on basic cost. The grade of DI & conformation to specifications shall be certified by a third party Quality Control Agency approved by indenting authority at the cost of supplier.

31. S o R FOR SFRC MAN-HOLE FRAME WITH COVERS FOR THE YEAR 2018-19.

Sl. No.	Description	Unit	Rate
I	Manufacture as per BIS:12592 (Part 1&2) Supply & Delivery of manhole covers and frames with ISI marking anywhere in A.P., F.O.R. destination including, loading, un-loading & stacking at site but excluding all taxes.		
a)	M.D. -10 with 500mm dia.clear opening	Each	1543.00
b)	H.D.-20 with 500mm dia.clear opening	Each	1989.00
C)	H.D.-10with 560mmdia. clear opening(New item)	Each	1560.00
d)	H.D.-20 with 560mm dia.clear opening	Each	2133.00
e)	H.D.-35 with 560mm dia.clear opening.	Each	2286.00
f)	24x24 MD 10	Each	1682.00
g)	24x18 MD 10	Each	1548.00
h)	24x24 HD 20	Each	1890.00
i)	24x18 HD 20	Each	1927.00
j)	Dividers 0.9 Mtr.	Each	3957.00
II	Manufacture as per company's standard specification supply and delivery of encapsulated plastic steps for man holes anywhere in A.P. including cost of materials packing as per company's standards, loading, transportation, unloading and stacking at site of work etc, complete but excluding all taxes.	Each	166.00

32. S o R FOR CI and M.S. DISMANTLING JOINTS FOR THE YEAR 2018-19

Sl.No.	Description	Unit	Rate
1	Manufacture, Supply and Delivery of C.I Dismantling Joints with both side flange end suitable for installation in between flange end pipes. These rates are excluding all taxes.		
	Nominal Dia. In MM		
	50	Each	4826
	80	Each	5282
	100	Each	6900
	125	Each	8800
	150	Each	9777
	200	Each	13864
	250	Each	16504
	300	Each	26409
2	Manufacture, Supply and Delivery of M.S. Dismantling Joints with both side flange end suitable for installation in between flange end pipes. Thickness as per IS: 7322. These rates are excluding all taxes.		
	Nominal Dia. In MM		
	350	Each	59,785
	400	Each	68,507
	450	Each	74,325
	500	Each	88,959
	600	Each	1,03,515
	700	Each	1,15,161
	750	Each	1,18,075
	800	Each	1,41,365
	900	Each	1,47,482
	1000	Each	1,76,660
	1100	Each	1,91,245
	1200	Each	2,20,420
	1300	Each	2,49,592
	1400	Each	2,79,334
	1600	Each	3,08,566
	1800	Each	3,65,405
	2000	Each	4,54,730
3	Conveyance of joints and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost	

33. OTHER ITEMS FOR THE YEAR 2018-19

Sl. No.	Description	Unit	Rate
1	2	3	4
1	SUPPLY AND DELIVERY OF PIG LEAD 99.99 % PURE INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.	Per Kg	287
2	SUPPLY AND DELIVERY OF LEAD WOOL BEST QUALITY INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.	Per Kg	168
3	SUPPLY AND DELIVERY OF SPUN YARN OF BEST QUALITY INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.	Per Kg	116
4	SUPPLY AND DELIVERY OF RUBBER PACKING INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.		
	a) 3 mm thick	Per Kg	93
	b) 6 mm thick	Per Kg	93
5	SUPPLY AND DELIVERY OF BOLTS AND NUTS WITH DOUBLE WASHERS INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE. (1/2" TO 1")	Per Kg	111

**34. S o R FOR TRENCH LESS TECHNOLOGY WITH PIPE JACKING METHOD FOR
THE YEAR 2018-19**

Sl. No.	Description	Unit	Rate
1	Railway crossing/Road crossing/Canal crossing by adopting trenchless technology tunneling work through specialized pipe jacking method by erecting the equipment to true to the alignment and gradient, by hydraulic pipe jacking technique complete including tunneling, excavation in all types of soils including hard rock and construction of RCC chambers suitable to casing pipe pits, and conveyance charges of machinery and other required materials but excluding cost of encasing pipe, in co-ordination with the concerned authorities as per approved drawings and directed by the Engineer-in –Charge.		
	800 mm dia.	Rmt	26000
	900 mm dia.	Rmt	27300
	1000 mm dia.	Rmt	28600
	1100 mm dia.	Rmt	29900
	1200 mm dia.	Rmt	31200
	1300 mm dia.	Rmt	32500
	1400mm dia.	Rmt	35100
	1500 mm dia.	Rmt	39000

35. OTHER CONSUMABLE ITEMS FOR THE YEAR 2018-19

S. No.	Description	Unit	Proposed Rates for 2018-19				
			Visakha patnam Circle	Rajamah endravar am Circle	Guntur Circle	Nellore Circle	Ananthap uramu Circle
1	2	3	4	5	6	7	8
1	Supply, delivery and staking of Alumino-Ferric(ALUM) as per I.S 299:2012 including cost of material, conveyance , stacking at the location specified by the Department and all taxes, duties and levies etc., complete.	Per Kg	11.00	9.00	9.50	9.75	9.50
2	Supply, delivery and staking of Copper Sulphate including cost of material, conveyance , stacking at the location specified by the Department and all taxes, duties and levies etc., complete.	Per Kg	250.00	244.00	260.00	260.00	260.00
3	Supply, delivery and staking of Chlorine Gas as I.S 646:1986 in cylinders including cost of material, conveyance , stacking at the location specified by the Department and all taxes, duties and levies etc., complete.	Per Kg	19.50	17.00	25.20	25.20	25.20
4	Supply, delivery and staking of Sodium Hypochlorite Solution as per I.S 11673 : 1992 (Chlorine liquid) including cost of material, conveyance , stacking at the location specified by the Department and all taxes, duties and levies etc., complete.	Per Kg	14.00	15.50	18.00	18.00	18.00
5	Supply, delivery and staking of Bleaching powder as per I.S 1065:1989 including cost of material, conveyance , stacking at the location specified by the Department and all taxes, duties and levies etc., complete.	Per Kg	25.00	28.00	26.00	26.00	26.00

36.S o R FORHOUSE SERVICE CONNECTIONSFOR THE YEAR 2018-19

Sl. No.	Description	Unit	Rate
1	<u>House service connections (Compression Fittings)</u> Supply and Fixing of compression fittings shall comply with ISO 17885 2015, PN-16 rating and manufactured from virgin resin of PE-80 having blue color. Raw material must be WRAS approved as per BS 6920 for effect on water quality intended for human consumption. Compression fittings should have moulded in SS 304 threaded insert outlet with thread dimension confirming to IS 554/ISO 7. The cost shall include testing of all materials, labour all taxes(central and state), inspection charges, transportation up to site, transit insurance, loading, unloading, stacking and fixing etc, complete as specified and directed by the departmental Engineer in charge.		
	Compression male/female threaded adaptor with SS insert D20 mm X 1/2 "	Each	165
	Compression male/female threaded adaptor with SS insert D25 mm X 3/4 "	Each	203
	Compression male/female threaded adaptor with SS insert D32 mm X 1 "	Each	306
	Compression male/female threaded elbow with SS insert D20 mm X 1/2 "	Each	176
	Compression male/female threaded elbow with SS insert D25 mm X 3/4 "	Each	226
	Compression male/female threaded elbow with SS insert D32 mm X 1 "	Each	336
	Double Compression elbow 20 mm 64	Each	72
	Double Compression elbow 25 mm 79	Each	89
	Double Compression elbow 32 mm	Each	126
2	<u>House service connections (Composite strap saddle for DI/CI pipes)</u> Supply and fixing of composite strap saddle shall be of wrap around design pN-16 rating. Body shall be manufactured using virgin compounded PE 80/PE 100 polymer with stainless steel 304 grade stirrup plate mounted with PE straps (Engineering Plastic) with Nut bolt joint, sealing between the saddle and mains shall be obtained by using an elastomer seal (Underneath projection for self interlocking). The cost shall include testing of all materials, labour all taxes (central and state), inspection charges, transportation up to site, transit insurance, loading, unloading, stacking and fixing etc, complete as specified and directed by the departmental Engineer in charge.		
	(Main pipe outer diameter in mm & tapping size in inches)		
	100 x 1/2"	Each	685
	100 x 3/4"	Each	709
	100 x 1"	Each	860
	150 x 1/2"	Each	979
	150 x 3/4"	Each	1018
	150 x 1"	Each	1162
	200 x 1/2"	Each	1034

	200 x 3/4"	Each	1139
	200 x 1"	Each	1185
3	<u>House service connections (Regulating Brass ferrule)</u> The cost shall include testing of all materials, labour all taxes (central and state), inspection charges, transportation up to site, transit insurance, loading, unloading, stacking and fixing etc, complete as specified and directed by the departmental Engineer in charge.		
	1/2"	Each	182
	3/4"	Each	300
	1"	Each	523
4	<u>House service connections (PP Saddle)</u> (Main pipe outer diameter in mm & tapping size in inches)		
	63x1/2"	Each	800
	63x3/4"	Each	800
	63x1"	Each	800
	75x1/2"	Each	800
	75x3/4"	Each	800
	75x1"	Each	800
	90x1/2"	Each	800
	90x3/4"	Each	800
	90x1"	Each	800
	110x1/2"	Each	800
	110x3/4"	Each	800
	110x1"	Each	800
	125x1/2"	Each	800
	125x3/4"	Each	800
	125x1"	Each	800
	140x1/2"	Each	800
	140x3/4"	Each	800
	140x1"	Each	800
	160x1/2"	Each	800
	160x3/4"	Each	800
	160x1"	Each	800
	180x1/2"	Each	954
	180x3/4"	Each	954
	180x1"	Each	954
	200x1/2"	Each	954
	200x3/4"	Each	954
	200x1"	Each	954

37. SoR FOR ARC WELDED M.S PIPEFOR THE YEAR 2018-19

Manufacture, supply and delivery of submerged ARC welded M.S Pipe having bevelled ends from plate or coil conforming to IS-3589 and/or IS-5504 with its latest revision / amendment with inside 406 micron thick food grade epoxy coating and outside 3LPE coating conforming to DIN 30670 / Polyolefin Tape coating conforming to AWWA C214 for the specified thickness & inner diameter of pipe, external field joint coating with polyolefin backing and internal field joint coating with chemically cured 2 part epoxy based solvent free liquid coating material for Drinking Water NSF approved etc., complete including all labour, materials and ROU/ROW as per specification and to the satisfaction of Engineer-in-charge excluding transportation and GST.

Inner Diameter (mm)	Outer Diameter (mm)	Thickness (mm)	MS Pipe Rate with Internal 406 micron thick food grade epoxy coating and 3LPE coating conforming to DIN 30670	MS Pipe Rate with Internal 406 micron thick food grade epoxy coating and Polyolefin Tape coating conforming to AWWA C214
500	510	5	5723	5634
500	511.20	5.60	6165	6084
500	512.60	6.30	6681	6600
500	522	11	10186	10104
600	611.60	5.80	7558	7462
600	612.60	6.30	7998	7902
600	625	12.50	13522	13424
700	712.60	6.30	9285	9204
700	714.20	7.10	10101	10024
700	728.40	14.20	17422	17390
800	814.20	7.10	11526	11440
800	816	8	12573	12494
800	836	18	24369	24365
900	916	8	14125	14040
900	917.60	8.80	15172	15093
900	920	10	16745	16677
900	935	17.50	26672	26669
1000	1017.60	8.8	16837	16752
1000	1020	10	18581	18508
1000	1040	20	33269	33296
1050	1067.60	8.80	17670	17583
1050	1070	10	19499	19423
1050	1072	11	21026	20961
1100	1117.6	8.8	18587	18412
1100	1120	10	20515	20339
1100	1122	11	22124	21947

1200	1220	10	22362	22170
1200	1222	11	24114	23922
1200	1225	12.50	26748	26556
1300	1325	12.50	28952	28744
1300	1328.40	14.20	32189	31980
1400	1425	12.50	31155	30931
1400	1428.40	14.20	34634	34410
1500	1528.40	14.20	37082	36841
1500	1532	16	41031	40792
1600	1628.40	14.20	39528	39274
1600	1632	16	43733	43480
1700	1728.40	14.20	41973	41705
1700	1732	16	46435	46169
1700	1735	17.50	50160	49898
1800	1828.40	14.20	44419	44137
1800	1832	16	49137	48859
1800	1835	17.50	53077	52801
1900	1932	16	51839	51548
1900	1935	17.50	55993	55704
1900	1940	20	62930	62646
2000	2032	16	54542	54236
2000	2035	17.50	58909	58608
2000	2040	20	66203	65907
2100	2135	16	61826	61512
2100	2140	17.50	69476	69169
2100	2144.40	20	76224	75921
2200	2235	17.50	64742	64415
2200	2240	20	72750	72429
2200	2244.40	22.20	79811	79498
2300	2340	20	76023	75691
2300	2344.40	22.20	83399	83074
2300	2350	25	92806	92489
2400	2440	20	79296	78951
2400	2444.40	22.20	86986	86648
2400	2450	25	96793	96465
2500	2540	20	82569	82213
2500	2544.40	22.20	90573	90224
2500	2550	25	100780	100441

38. SoR FOR HDPE ELECTRICAL PIPE CONDUITS FOR THE YEAR 2018-19

Supply of the HDPE Electrical pipe conduits with permanent Lubricant inner layer with ribs , dimensional ratio of 13.5, deflection not greater than 5% when exposed to the normal operating temperature 90 degrees centigrade under the overburden soil pressure and other physical properties confirming to ASTM F 2160 and / or NEMA TC 7 (The expected service life of HDPE Pipe conduit and accessories shall not be less than 50 years)including transportation and excluding GST	
Diameter	Rate per Rmt
160 mm	1221
200 mm	1981
225mm	2902
7 way (Multi duct for ICT)	955

GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Mines & Minerals – Amendments to Rule 10 of the Andhra Pradesh Minor Mineral Concession Rules, 1966 – Orders – Issued.

INDUSTRIES AND COMMERCE (M.I) DEPARTMENT

G.O.Ms.No:100

Dated:31.10.2015
Read the following:

- 1. G.O.Ms.No. 198, Ind. & Com. (M.I) Dept., dt. 13.08.2009.
- 2. Director of Mines & Geology, Letter No. 7598/P-MR/2014, dated. 09.10.2015.

ORDER:

The following notification will be published in the Extra-Ordinary issue of the Andhra Pradesh Gazette dated. 01.11.2015.

NOTIFICATION

In exercise of the powers conferred by sub-section (1) of section 15 of the Mines & Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), the Governor of Andhra Pradesh hereby makes the following amendments to the Andhra Pradesh Minor Mineral Concession Rules, 1966 issued in G.O.Ms.No. 1172, Industries and Commerce (M.I) Department, dated. 04.09.1967 and subsequently amended from time to time.

AMENDMENTS

In the said rules, Under Rule 10 for Schedules I and II, the following shall be substituted, namely;

SCHEDULE-I
RATES OF SEIGNIORAGE FEE

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seigniorage Fee (in Rupees)
1	Building Stone	M3/MT	Rs.75 / 50 (Rupees Seventy five / Fifty)
2	Rough Stone/Boulders		
2a	Manufactured Sand		
3	Road Metal & Ballast		
3a	Dimensional Stone used for Kerbs & Cubes	MT	Rs. 110 (Rupees one hundred and ten)
4	Lime kankar/Limestone	MT	Rs. 80 (Rupees Eighty)
5	Lime shell	MT	Rs. 100 (Rupees one hundred)
6	Marble	M3/MT	Rs. 250 / 100 (Rupees Two hundred fifty / one hundred)
7	Mosaic Chips	MT	Rs. 50 (Rupees fifty)
8	Morrum /Gravel & Ord. Earth	M3/MT	Rs. 30/20 (Rupees Thirty / Twenty)

9	Ordinary Sand	M3	Rs. 50 (Rupees fifty)
10	Shingle	M3/MT	Rs. 75/50 (Rupees Seventy five / Fifty)
11	Chalacedony Pebbles	M3/MT	Rs. 75/50 (Rupees Seventy five / Fifty)
12	Fullers Earth/Bentonite	MT	Rs. 150 (Rupees one hundred and fifty)
13	Shale/Slate	MT	Rs. 150 (Rupees one hundred and fifty)
14	Rehmati	M3/MT	Rs. 30/20 (Rupees Thirty / Twenty)
15	Limestone Slabs:		
(i)	Colour	Sq.Mt/MT	Rs. 8/- (Rupees Eight) per Sq.Mt or Rs. 100/- (Rupees Hundred) per MT whichever is higher.
(ii)	White	Sq.Mt/MT	
(iii)	Black	Sq.Mt/MT	
16	Ordinary Clay, Silt and Brick Earth used in the Manufacture of Bricks including Mangalore Tiles	-	Rs. 6000/- (Rupees Six thousand) per kiln per annum for Bricks and Tiles.

17. Granite Useful for Cutting:

	Item	Unit	Super Gang Saw above 300cmX 180cm size.	Mini Gang Saw above 270cmX150cm size.	270cmX 150cm and below size.	Below 75cm size.
1	Black Granite Galaxy variety	M3	Rs. 4000/- (Rupees four thousand)	Rs. 3200/- (Rupees Three thousand two hundred)	Rs. 3000/- (Rupees Three thousand)	Rs. 1350/- (Rupees one thousand three hundred fifty)
2	Black Granite other than Galaxy variety	M3	Rs. 3000/- (Rupees Three thousand)	Rs. 2500/- (Rupees Two thousand five hundred)	Rs. 2350/- (Rupees Two thousand three hundred fifty)	Rs. 1000/- (Rupees Thousand)
3	Colour Granite Srikakulam Blue, Moon white, River white of Visakhapatnam Dist., Leptinites of Coastal Dists., Black pearl of Prakasam and Guntur Dists.,	M3	Rs. 3000/- (Rupees Three thousand)	Rs. 2500/- (Rupees Two thousand five hundred)	Rs. 2350/- (Rupees Two thousand three hundred fifty)	Rs. 1000/- (Rupees Thousand)

4	Colour Granite of other varieties	M3	Rs. 2350/- (Rupees Two thousand three hundred fifty)	Rs. 2150/- (Rupees Two thousand one hundred fifty)	Rs. 2000/- (Rupees Two thousand)	Rs. 1000/- (Rupees Thousand)
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SCHEDULE-II
Rate of Dead Rent

Sl. No.	Name of the Minor Mineral	Rate of Dead Rent per hectare per Annum (in Rupees)
1	Black Granite	Rs.1,00,000/- (Rupees one lakh)
2	Colour Granite	Rs.1,00,000/- (Rupees one lakh)
3	Limestone other than classified as major minerals used for lime burning for Building construction purposes, marble, boulders, building stone including stone used for Road Metal, Ballast concrete & other construction purpose, Shale, Slate & Phyllites, Mosaic Chips, Fullers Earth/Bentonite & Dimensional Stone used for Cubes and Kerbs.	Rs.50,000/- (Rupees Fifty thousand)
4	Gravel, Morrum, Ordinary Earth, Shingle, Limestone Slabs used for flooring purpose Limekankar, Chalcedony Pebbles used in the building purpose Lime-shell for burning used for building purpose and Rehmati.	Rs.40,000/- (Rupees Forty thousand)

2. This order shall come into force w.e.f. 01.11.2015.
3. This order issued with the concurrence of Finance Department vide their No. 4519/PFS/2015, Dt.12.10.2015.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

M. GIRIJA SHANKAR,
SECRETARY TO GOVERNMENT (MINES & FP) (FAC)

To

The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad. (He is requested to publish the above Notification in the Extra-ordinary issue of Andhra Pradesh, and arrange to send 1000 copies of the same to Government in Industries & Commerce (M.I) Department).

The Director of Mines & Geology, Andhra Pradesh, Hyderabad.

The Chief Executive Officer, SERP, Hyderabad.

All the Joint Director / Deputy Director / Asst. Director of Mines & Geology through the Director of Mines & Geology, Hyderabad.

Copy to:

The Secretary to Govt, Ministry of Mines, GoI.

The Law (A) Department.

The Finance Department.

The P.S to Hon'ble Minister for Women Empowerment, Child Welfare and Disabled & Senior Citizens Welfare and Mines & Geology.

The Secretary to Govt., (Mines), CM's office.

SF/SC

//FORWARDED: BY ORDER//

SECTION OFFICER

GOVERNMENT OF ANDHRA PRADESH



BUILDINGS SoR: 2018-19

SCHEDULE OF RATES FOR BUILDING WORKS

FOR THE YEAR 2018-19

**ALL ENGINEERING
DEPARTMENTS**

**Office of the Chief Engineer (R&B) Buildings & RSW,
Convener-Member,
Committee of Chief Engineers-Buildings-SoR**

Procs.No. ENC(B)/DEE-3/AEE9/SoR: 2018-19

Dt: 21.08.2018.

Sub:- Printing of Buildings-SoR for all the Engineering Departments - specific to the functioning of Building works – Buildings-SoR:2018-19 – Communication of approved Buildings-SoR – Reg.,

Ref:- 1. G.O.Rt.No.95, T, R&B (R.1) Dept, dt:18.01.2015.
2. Minutes of Committee of Chief Engineers meetings for finalizing the Building-SoRs held on Dt:27.06.2018
3. T.O. Procs.No. ENC(B)/DEE-3/AEE9/SoR: 2018-19 Dt: 29.06.2018.
4. Minutes of Committee of Chief Engineers meetings for finalizing the Building-SoRs held on Dt:21.08.2018

The Government of Andhra Pradesh have constituted a Committee of Chief Engineers of Engineering departments dealing with Building works for finalizing and communicating Buildings-SoR (Civil & Electrical) vide G.O. 1st cited. In accordance therewith the Committee of Chief Engineers has finalized and approved the Buildings-SoR: 2018-19 in the Minutes of Meeting held on Dt.27.06.2018 and communicated vide reference 3rd cited.

Meanwhile, Builders Association of India and other organizations have represented that the rates proposed in the approved SoR 2018-19 Buildings Part III (Civil, Water Supply & Sanitary, and Electrical & Electro-Mechanical Items) are not reflecting the present market and also they are not revised since 4 years. In view of the situation, the committee have reviewed the items approved earlier and made deliberations that rates of certain items are recommended for modification suitable to the market price and demand vide minutes of meeting held on Dt.21.08.2018 and also recommended to publish accordingly the modified SoR 2018-19 Buildings (Part III) with immediate effect and communicated vide reference 4th cited.

The rates in Revised SoR 2018-19 Buildings (Part III) for the Building items (Civil, Water Supply & Sanitary, and Electrical & Electro-Mechanical Items) are to be followed henceforth by all the concerned departments for building works. The rates of Labour, Common Material & Work items, Public Health items, Conveyance Rates of Materials & Hire charges approved and published in Common SoR-2018-19 remain applicable. No other items other than the items communicated in this Revised Buildings-SoR 2018-19 and Common SoR-2018-19 shall be introduced.

The Heads of Departments mentioned below are authorized to print the Buildings-SoR: 2018-19. The unauthorized printing & selling of the Buildings-SoR is strictly prohibited. The revised rates will come into force with immediate effect.

The receipt of the proceedings may please be acknowledged.

Enclosed: Revised Buildings SoR: 2018-19 as above

K. Nayeemulla
Sd /- 21.08.2018
Chief Engineer (R&B) Buildings&RSW
Convener-Member,

Committee of Chief Engineers-Buildings-SoR

To

1. The Chief Engineer (RSW & Buildings), Roads & Buildings Department, MG Road, Vijayawada.
2. The Chief Engineer (R&B) (Electrical), R&B Department, MG Road, Vijayawada.
3. The Engineer-in-Chief, Public Health Department, Mahatma Gandhi Inner Ring Rd, Gorantla, Guntur-522034.
4. The Engineer-in-Chief (P.R.), Panchayat Raj Department, D.No.3-20/4,Tankasala Kalyana Mandapam, Enikepadu, Vijayawada.
5. The Engineer-in-Chief, Tribal Welfare & Social Welfare Department, Plot No.401 & 402, Garuda Enclave, Tadepalli, Guntur District
6. The Chief Engineer (Civil), Tirupathi Tirumala Devasthanams, Tirupati
7. The Chief Engineer (AP Housing Board) Flat No.101, Vijayalakshmi residency, ESI Hospital Road, Gunadala, Vijayawada.
8. The Chief Engineer (Housing Corporation) 12-52, Prasadampadu,Opp. to Tankasala Kalyana Mandapam, Enikepadu, Vijayawada.
9. The Chief Engineer(APSRTC), RTC House, 1st floor of PNBS, Vijayawada.
10. The Chief Engineer(APMSIDC), Mangalagiri, Guntur
11. The Chief Engineer (AP Police Housing & Welfare Corporation), Labbipet, Vijayawada
12. The Chief Engineer, Vijayawada Municipal Corporation, Vijayawada.

Copy to

1. The Engineer-in-Chief(Admn, NH, CRF), R&B Department, MG Road, Vijayawada
2. The Engineer-in-Chief (IW) I&CAD, Irrigation Department, Ramavarapadu, Vijayawada-520008.
3. The Chief Engineer (COT), 76-16-4A/1,1st floor, Iron Yard, Opp. to Ramayalam, Vijayawada-520012.
4. The Chief Engineer (MDRs) R&B Department, MG Road, Vijayawada
5. The Chief Engineer (RRs & LWE) R&B Department, MG Road, Vijayawada
6. The Chief Engineer (QC), R&B Department, MG Road, Vijayawada

Chief Engineer (R&B) Buildings & RSW

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(Civil, Water Supply & Sanitary, Electrical and Electro-Mechanical items)

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BUILDINGS SoR:2018-19

(Civil, Water Supply & Sanitary, Electrical and Electro-Mechanical items)

PREAMBLE

1.0 INTRODUCTION

The Government have issued orders vide . G.O.Rt.No.95, T, R&B (R.1) Dept., dt:18.01.2015 constituting a Committee comprising of Chief Engineers of departments in-charge of execution of building works for finalization of Standard Schedule of Rates for Buildings (Civil, Water Supply & Sanitary, Electrical and Electro-Mechanical items). The meeting of the above “SoR Committee for Buildings (Civil, Water Supply & Sanitary, Electrical and Electro-Mechanical items)” was convened on 21.08.2018 with an objective to finalize and release the Buildings-SoR: 2018-19.

2.0 APPLICABILITY OF COMMON SoR – 2018-19

The rates of labour, common materials & work items, Public Health items, conveyance rates of materials & hire charges approved and published in Common SoR-2018-19 remain applicable. The specifications, stipulations& all other conditions of Common-SoR other than those specified in this context remain applicable.

3.0 OVERHEADS & CONTRACTORS PROFIT

- a. The provision of ‘Over Heads and Contractor’s Profit @ 13.615% shall be allowed in all the data items of the estimates and rates of the finished items in building works where ‘Contractors All Risk’ policy is dispensed with.
- b. It is reiterated that the provision of ‘Over Heads and Contractor’s Profit’ is applicable to Building works since the advent of the AP. Revised standard data-2009, which is approved by the Government in G.O.Ms.No.49 I&CAD (PW-Reforms) Dept., dated: 02-03-2009 and this component shall be operative on all the data items of the estimates and rates of the finished items published in **Buildings SoR for all original works and major Renovation works** subjected to the fulfillment of the conditions given below:
 - i. Site accommodation, setting up plant, access road, water supply, electricity and general site arrangements.
 - ii. Office furniture, equipment and communications.
 - iii. Expenditure on:
 - a) Corporate office of contractor.
 - b) Technical agents for site supervision. (Reimbursement to the technical agents provision is dispensed with where ‘over heads and contractor’s profit’ provision is included in the data rates)
 - c) Documentation and “**as built**” drawings.
 - d) Mobilization/ de-mobilization of resources.
 - e) Labour camps with minimum amenities and transportation to work sites.
 - f) Light vehicles for site supervision including administrative and managerial requirements.
 - g) Laboratory equipment and quality control including field and laboratory testing. (***For all the works costing more than Rs.2 Crores contractors have to establish Quality Control laboratory***)
 - h) Minor T & P and survey instruments and setting outworks, including verification of line, dimensions, etc.
 - i) Watch and ward.
 - j) Traffic management/ Safety management during construction.
 - k) Expenditure on safeguarding environment.

- iv. Sundries.
- v. Financing Expenditure.
- vi. **Sales/ Turn overtax is replaced with GST wef 01.07.2017. The rates arrived in this SoR are only basic rates which are exclusive of all taxes.** However, as per the suggestion of BoCE, the provision towards Works Contract Tax as per applicable GST rates shall be added in the estimates.
- vii. Work Insurance/ compensation - Works insurance is dispensed with vide G.O. Ms. No: 61 Irrigation & CAD (PW:Reforms) Department Dt. 25-06-2013. Further, It is decided not to insist upon insuring all the building works as provision for this component is already deleted from the 'Overheads & Contractor's Profit' in building works.

4.0 OTHER GUIDELINES

1. Municipal Area Allowance, Agency or Tribal area allowance or any such allowance on the labour components of civil, water supply & sanitary items, Electrical and Electro-Mechanical items of building works shall be allowed wherever applicable **as per the guidelines and preamble of Common SoR: 2018-19**. For the building work estimates taken up in the notified Area Development Authorities constituted by the Government, the Area Allowance on the labour components of civil, water supply & sanitary items, Electrical and Electro-Mechanical items of building works may be allowed on specific recommendation from such Area Development Authorities.
2. The Ready Mix Concrete (RMC) rate shall be as per the rate analysis which is appended at Sl. No 23 in the Buildings Section of A.P. Revised Standard Data-2009.
3. Wherever the concrete pump is used in the data, 8 working hours per day can be considered for rate analysis purpose.
4. For the structures where the Standard and High Strength Concretes vide IS: 456-2000 is required, mix design shall be carried out and rates may be arrived as per the rate analysis appended in the A.P. Revised Standard Data-2009.
5. Certain items in the SoR are deleted due to change in the specification, non-availability in the market, etc
6. The rates of Hire charges for centering & scaffolding for the SHEAR WALLS, RCC WALLS, WATER TANK WALLS are included.
7. The Electrical items and corresponding rates as proposed by the Chief Engineer (R&B) Electrical in the meeting, have been considered in the Buildings SoR-**2018-19**.
8. The rates for the Manholes and inspection chambers are finalized based on the detailed rate analysis.
9. The rates of CI Pipes and fittings have been fixed based on the price lists obtained from the dealers & manufacturers and based on the 'Wholesale Price Indices' published by the Government of India and competitive quotations.
10. Similarly the Vitreous China Ware, Porcelain, Taps & Faucets, G.I Pipes, Valves & Fittings, SWG pipes & fittings and PVC Pipes & fittings have been finalized based on the 'Wholesale Price Indices' published by the Government of India and competitive quotations.
11. The specifications of the aggregates for sizes and gradation and its adoption shall be as per IS 383-1970 and IS 2386 (Part 1 to Part 8).
12. **No allowance towards 'Labour Importation & Labour Amenities' shall be added to the datas as they are included in the provision of 'Over heads and contractor's profit'.**
13. For sand, gravel, murum, stones, coarse aggregates etc, the basic rates are for delivery at site, excluding seigniorage (royalty) charges, unloading charges by machinery / manual means and idle hire charges of machinery shall be allowed (as per table under chapter "conveyance or lead and lift charges") as applicable.
14. For all the materials, **the basic rates given in the Buildings SoR** are 'landing prices' at the site which are exclusive of all taxes, except where mentioned specifically.
15. For the materials where the basic rates are mentioned as 'quarry rates' in the Buildings SoR, which includes initial lead of 1.0 km, lead charges are to be added for the lead distances from the approved quarries as applicable. Wherever the term "carriage" or "conveyance" is used in schedule item, it shall be taken to include actual

leads, lifts, loading, unloading and stacking to the satisfaction of the technical sanctioning authority while making the price-adjustments.

16. The basic item rates provided in the schedule of rates include 50 m (conveyance by manual means) or 1 km (conveyance by mechanical means) as initial lead and no lead charges shall be allowed where the source of material is within the initial lead specified in item rate. Additional lead charges shall be allowed for the lead exceeding initial lead specified in the item rate.
17. The lead charges per unit quantity for conveyance of the materials are worked out, and included in the schedule of rates in increment of 50 m for head load and in increment of 1 km for mechanical mode.
18. The rates for lead charges by head load up to 150 meters and by machinery up to 5 km shall be cumulative and inclusive of lead charges for proceeding lead.
19. For building works taken up in the hill areas where the materials are conveyed on ghat roads, the lead distance may be taken as 2.0 times of the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned.
20. Loading and unloading charges are not payable for conveyance by head load.
21. Loading and unloading charges are not payable for conveyance by mechanical means, for disposal of excavated material unless specified.
22. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone, are inclusive of stacking wherever applicable.
23. The input rate for the water charges taken in Common Standard Schedule of Rates for the basic data is for the sources at site, any water lead as applicable may be allowed as per the conveyance charges.
24. Unless otherwise specified, all material rates shall be exclusive of all taxes, duties, levies, royalty/seigniorage, transportation, handling costs up to project area, and also the 'Works Contract Tax'.
25. Any errors, omissions, corrections or suggestions shall be brought to the notice of the 'COMMITTEE OF THE CHIEF ENGINEERS (Buildings SoR)' for corrective action.
26. **For any new items to be included in the 'Schedule of Rates', recommendations with specific remarks of the respective departments should reach the 'Committee of Chief Engineers' well in advance.**
27. The CWC (Ministry of Irrigation) has recommended that **"where standard or schedule of rates are revised or where is necessary to do so, the primary guiding principle should be escalation in labour and material cost and not on trend of rates quoted by the contractors"**. The 'Committee of Chief engineers' (Buildings SoR) have considered the practicality and adoptability of the 'Buildings-SoR' in construction of the building projects in finalizing the 'Buildings-SoR'.
28. Wherever feasible, more emphasis is given to the technical specifications for the SoR items by removing the brand names of the manufacturers from the specification and list of various Manufacturer's/ Supplier's brands in the respective category for the products is grouped and appended at the end of the SoR so as to bring to an end of encouraging a particular brand and to use only ISI Products in Buildings Construction.
29. The technical specifications, list of various Manufacturer's/ Supplier's brands and the rates of the corresponding items given in the SoR are for the guidance only. The estimate preparing authorities are requested to obtain literature for usage / application of construction / water proofing materials, epoxies etc, from the manufacturers or authorized suppliers in the contract documents as per the requirement.

5.0 CONCLUSION

1. The Committee of Chief Engineers on Buildings-SoR: 2018-19 (Civil & Electrical) has met in the chambers of Engineer-In-Chief (R&B) Buildings, 26.06.2018 at 03.00P.M., and approved the Buildings SoR:2018-19, with out any tax elements based on the representations received from various Engineering Departments. As per the suggestion of BoCE, 12% GST rate on the Estimate Contract Value(ECV) towards works contract shall be provided in Part-B of the estimate during preparation of estimates.

2. SSR Rates for Civil, Sanitary & water supply and Electrical Items are purely for the guidance of the officers in preparation of estimates vide Para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in Para 45 of APPWD code.
3. The rates published in the Buildings SoR are ceiling rates and the estimate preparing authorities are responsible for the correctness and reasonableness of the Technical Specifications and Rates adopted in the estimates.
4. The committee has resolved to amend the Standard Data / Clarification with the following Admendments:
 1. Proc. No. ENCB/TA8/AEE3/DATA: 2010-11 dated: 01.08.2011.
 2. Proc. No. ENC (B)/DEE-1/SAA3/SOR: 2015-16 dated: 20.07.2015
 3. Pro. No. ENC (B)/DEE1/AEE1/Data: 2016-17 dated: 29.09.2016
 4. Pro. No.ENC/IW/P&M/EE.1/DEE-2/AEE/ SoR 2015-16/Vol.3 dt:16.07.2015 of BoCE regarding Clarification on 1Km Lead Charges

BUILDING ITEMS

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	A.	BRICKS & BUILDING BLOCKS <i>(ex-quarry price - excluding cost of conveyance, loading & unloading)</i>		
		ORDINARY CLAY BRICKS		
1	BMT-A.01	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Non-Modular or traditional size 23 x 11 x 7 cm	1000 Nos	5607
2	BMT-A.02	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Modular or traditional size 19 x 9 x 9 cm	1000 Nos	6308
		FLY-ASH CEMENT/LIME SOLID BLOCKS <i>(ex-quarry price - excluding cost of conveyance, loading & unloading)</i>		
3	BMT-A.03	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 290 x 225 x 140 mm	Each	24
4	BMT-A.04	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 290 x 200 x 140 mm	Each	21
5	BMT-A.05	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 290 x 150 x 140 mm	Each	19
6	BMT-A.06	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 290 x 112/100 x 140 mm	Each	14
7	BMT-A.07	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 225 x 100 x 60 mm	Each	7
8	BMT-A.08	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 145 x 225 x 140 mm	Each	15
9	BMT-A.09	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 - 145 x 200 x 140 mm	Each	11
10	BMT-A.10	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 290 x 225 x 140 mm	Each	23
11	BMT-A.11	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 290 x 200 x 140 mm	Each	19
12	BMT-A.12	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 290 x 150 x 140 mm	Each	20
13	BMT-A.13	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 290 x 112/100 x 140 mm	Each	10

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
14	BMT-A.14	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 225 x 100 x 60 mm	Each	5
15	BMT-A.15	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 145 x 225 x 140 mm	Each	11
16	BMT-A.16	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 145 x 200 x 140 mm	Each	10
17	BMT-A.17	Supply of well burnt cinder aggregates as per IS: 2686-1977	1 Cum	596
		AUTOCLAVED CONCRETE BLOCKS		
		(landing cost - including cost of conveyance, loading & unloading)		
18	BMT-A.18	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² - 600 x 200 x 100 mm	Each	47
19	BMT-A.19	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² - 600 x 200 x 150 mm	Each	69
20	BMT-A.20	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² - 600 x 200 x 200 mm	Each	93
21	BMT-A.21	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² 600 x 200 x 230 mm	Each	106
	B.	NATURAL FLOORING STONES (ex-quarry price – excluding cost of conveyance, loading & unloading)		
		LOCALLY AVAILABLE FLOORING STONES		
22	BMT-B.01	Kadapa slab 40 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	94
23	BMT-B.02	Kadapa slab 50 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	107
24	BMT-B.03	Shahabad /Tandur Rough Stone slabs of minimum of 25 mm thick	10 Sqm	937
25	BMT-B.04	Shahabad / Tandur Rough Stone slabs of minimum 40 mm thick	10 Sqm	1207
26	BMT-B.05	Polished Shahabad/ Tandur stone slabs of 15 to 18 mm thick	10 Sqm	1610
27	BMT-B.06	Polished black Kadapa slabs minimum of 15 mm thick (0.457x0.457M)	10 Sqm	1343
28	BMT-B.07	Polished Bethamcherla pure (marble type) white stone minimum 25 mm thick (0.254Mx0.254M)	10 Sqm	3758
29	BMT-B.08	Polished Bethamcherla coloured stone minimum 25 mm thick (0.254M x0.254M)	10 Sqm	2683

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		NATURAL FLOORING STONES - GRANITE		
30	BMT-B.09	High Polished Granite 16 to 18 mm thick up to 2.43 M other than black/ premium colours	1 Sqm	2695
31	BMT-B.10	High Polished Granite 16 to 18 mm thick up to 2.43 M other than black and regular colours	1 Sqm	2342
32	BMT-B.11	High Polished Granite 16 to 18 mm thick up to 2.43 M black	1 Sqm	1991
		NATURAL FLOORING STONES - MARBLE		
33	BMT-B.12	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes from 600 mm to 900 mm	1 sqm	648
34	BMT-B.13	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes up to 600 mm	1 sqm	524
35	BMT-B.14	Polished Marble slabs of any variety and gang saw cut (Such as Dongari/ Adanga/ Marodh/ Rajgangpur etc) 16 mm to 20 mm (average) thick (0.610 M width of any length)	1 sqm	889
36	BMT-B.15	Polished Marble Tiles of 8 - 10 mm thickness of all sizes and varieties	1 sqm	424
37	BMT-B.16	Granite stone tiles 8 mm thick (mirror polished of all shades)	1 sqm	1005
38	BMT-B.17	Polished black Kadapa slabs of all sizes between 25 - 30 mm thickness	10 Sqm	1540
	C.	WALL & FLOOR TILES (Landing cost – including loading, cost of conveyance, unloading)		
		NON-PORCELAIN CERAMIC FLOOR TILES		
39	BMT-C.01	Supply of Non-skid red or white full body Ceramic floor tiles of size 300 x 300 mm and thickness between 7-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	411
40	BMT-C.02	Supply of Non-skid red or white full body Ceramic floor tiles of size 400 x 400 mm and thickness between 7-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	415
41	BMT-C.03	Supply of Non-skid red or white full body Ceramic floor tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	474
42	BMT-C.04	Supply of Non-skid red or white full body Ceramic floor tiles of scratch free-stain free and scratch free-nano finish of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	508

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		PORCELAIN VITRIFIED FLOOR TILES		
43	BMT-C.05	Supply of ordinary soluble salt porcelain vitrified tiles screen printed and polished of size 300 x 300 mm and thickness between 8-9 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	451
44	BMT-C.06	Supply of soluble salt porcelain vitrified tiles screen printed and polished of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	418
45	BMT-C.07	Supply of Nano polished /stain free soluble salt porcelain vitrified tiles screen printed of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443
46	BMT-C.08	Supply of Nano polished soluble salt porcelain vitrified tiles screen printed of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	904
47	BMT-C.09	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	644
48	BMT-C.10	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	797
49	BMT-C.11	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1086
50	BMT-C.12	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	797
51	BMT-C.13	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 900 x 900 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1026

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
52	BMT-C.14	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1406
53	BMT-C.15	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 600 mm and thickness between 12-15 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	885
54	BMT-C.16	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 10-12 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	724
55	BMT-C.17	Supply of full body heavy duty industrial variety / tact porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 12-15 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	973
56	BMT-C.18	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 18-20 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1119
57	BMT-C.19	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 400 x 400 mm and thickness between 10 - 12 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	716
58	BMT-C.20	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 600 x 600 mm and thickness between 10 - 12 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	797
		CERAMIC WALL TILES		
59	BMT-C.21	Supply of glazed red or white full body ceramic wall tiles of size 200 x 300 mm / 245 mm x 325 mm and thickness 6 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	323
60	BMT-C.22	Supply of glazed red or white full body ceramic wall tiles of size 300 x 450 mm / 320 mm x 400 mm and thickness 6 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	396

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
61	BMT-C.23	Supply of glazed red or white full body ceramic wall tiles of size 300 x 600 mm and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	538
		PORCELAIN WALL TILES		
62	BMT-C.24	Supply of glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	554
63	BMT-C.25	Supply of digital / polished glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	585
64	BMT-C.26	Supply of digital / polished glazed full body porcelain highlighter wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	593
65	BMT-C.27	Supply of screen printed glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	644
66	BMT-C.28	Supply of glazed full body porcelain wall tiles of size 400 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	764
67	BMT-C.29	Supply of glazed full body porcelain wall tiles of size 600 x 800 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 7-9 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	863
68	BMT-C.30	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but excluding highlighters 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	863

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
69	BMT-C.31	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but including highlighters 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	863
70	BMT-C.32	Providing and fixing wall dado with epoxy emulsion grout/ synthetic/ resin based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	294
71	BMT-C.33	Providing and fixing wall dado with cement based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	149
72	BMT-C.34	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with epoxy emulsion grout/ synthetic / resin adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles.	1 Sqm	295
73	BMT-C.35	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with cement based adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles .	1 Sqm	157
74	BMT-C.36	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with epoxy emulsion grout/ synthetic / resin based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	591
75	BMT-C.37	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with cement based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	298
		GLASS MOSAIC TILES		
76	BMT-C.38	Supply of glazed full body glass mosaic tiles of 20 x 20 x 4 mm thick in specified pattern 1st Quality of any colour and design	1 Sqm	1109
77	BMT-C.39	Providing Glass Mosaic tiles using specified pattern fixing in specified thick epoxy emulsion grout of epoxy resins and filler powder of approved colour grout including all taxes excluding cost of tiles	1 Sqm	249
78	BMT-C.40	Providing Glass Mosaic tiles using specified pattern fixing in specified thick cementitious powder mix cement grout and approved colour grout including all taxes excluding cost of tiles	1 Sqm	96
		WALL CLADDING TILES		
79	BMT-C.41	Supply of glazed full body porcelain tiles for external cladding purposes of any size and thickness between 6-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	527

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
80	BMT-C.42	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 5-7 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	383
81	BMT-C.43	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 10-12 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	397
82	BMT-C.44	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 18-20 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	509
D.		PAVING & INTERLOCKING TILES (landing cost - including cost of conveyance, loading & unloading)		
83	BMT-D.01	Supplying precast terrazzo chequered tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick of any coloured shades.	1 sqm	266
84	BMT-D.02	Supplying precast terrazzo tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick white shades.	1 sqm	244
85	BMT-D.03	Supplying precast terrazzo plain tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick any coloured shades.	1 sqm	259
		CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED)		
86	BMT-D.04	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	229
87	BMT-D.05	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	240
88	BMT-D.06	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	244

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
89	BMT-D.07	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	256
90	BMT-D.08	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	266
91	BMT-D.09	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	279
92	BMT-D.10	Supply of high strength Cement Concrete plain Step tiles with edge half rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of regular colour, design and of 25 mm thickness	1 Sqm	399
93	BMT-D.11	Supply of high strength Cement Concrete terrazzo/pre-polished/ chequered Step tiles with edge rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of any premium colour, design and of 25 mm thickness	1 Sqm	419
		PRE-CAST CONCRETE BLOCKS FOR PAVING		
94	BMT-D.12	Supply of precast concrete blocks for paving of M-30 grade and thickness not less than 50 mm for Non-traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	260
95	BMT-D.13	Supply of precast concrete blocks for paving of M-35 grade and thickness not less than 60 mm for Light traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	296
96	BMT-D.14	Supply of precast concrete blocks for paving of M-40 grade and thickness not less than 80 mm for Medium traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	402
97	BMT-D.15	Supply of precast concrete blocks for paving of M-50 grade and thickness not less than 100 mm for Heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	443
98	BMT-D.16	Supply of precast concrete blocks for paving of M-55 grade and thickness not less than 120 mm for very heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	504
99	BMT-D.17	Labour charges for laying & fixing of precast concrete blocks for paving of all grades, any thickness, all sizes & shapes including all labour charges for loading & unloading, laying to desired lines and levels complete excluding cost of cement, sand, water, electricity etc	1 Sqm	161

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
E.		TIMBER & ROOFING MATERIALS (Landing cost –including cost of conveyance, loading & unloading)		
		<i>Note: Before proposing the Teak Wood Items, the estimating authorities shall obtain prior approval from the competent authority</i>		
100	BMT-E.01	Medium Teak Wood scantlings: up to 2.0 M	1 cum	71195
101	BMT-E.02	Medium Teak Wood scantlings: 2.0 to 3.0 M	1 cum	79106
102	BMT-E.03	Medium Teak Wood scantlings: above 3.0 M	1 cum	87017
103	BMT-E.04	Medium Teak Wood Plancks: any thickness	1 cum	142391
104	BMT-E.05	Best Teak Wood scantlings: up to 2.0 M	1 cum	122614
105	BMT-E.06	Best Teak Wood scantlings: 2.0 to 3.0 M	1 cum	130525
106	BMT-E.07	Best Teak Wood scantlings: above 3.0 M	1 cum	138436
107	BMT-E.08	Best Teak Wood Plancks: any thickness	1 cum	154257
108	BMT-E.09	Burma Teak Wood scantlings: up to 2.0 M	1 cum	168485
109	BMT-E.10	Burma Teak Wood scantlings: 2.0 to 3.0 M	1 cum	173298
110	BMT-E.11	Burma Teak Wood scantlings: above 3.0 M	1 cum	182272
111	BMT-E.12	Burma Teak Wood Plancks: any thickness	1 cum	197369
112	BMT-E.13	Assam Teak Wood scantlings: any length	1 cum	45166
113	BMT-E.14	Assam Teak Wood Plancks: any thickness	1 cum	65493
114	BMT-E.15	Sal Wood scantlings: any length	1 cum	46217
115	BMT-E.16	Sal Wood Plancks: any thickness	1 cum	58690
116	BMT-E.17	A.C sheet Corrugated 6 mm thick	1 sqm	204
117	BMT-E.18	A.C sheet plain 4 m thick	1 sqm	146
118	BMT-E.19	A.C sheet plain 6 m thick	1 sqm	152
119	BMT-E.20	Plain or Corrugated Galvanized iron sheets as per IS 277 (0.1 mm to 0.8 mm thickness)	1 kg	59
120	BMT-E.21	Supply of UV resistant multi-wall polycarbonate sheets for roofing of any colour - 6 mm thick	1 Sqm	1147
121	BMT-E.22	Aluminium universal glazing set 40 mm wide for jointing and fixing polycarbonate sheets	1 RM	109
F.		MILD, GALVANIZED & STAINLESS STEEL (Landing cost –including loading, cost of conveyance, unloading)		
122	BMT-F.01	Mild Steel Hallow single rebate general putpose door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile-B of size 105 x 60 mm conforming to IS 4351 - 2003 including pretreatment, phosphating with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and	1 Rm	336

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors		
123	BMT-F.02	Country Nails	1 Kg	52
124	BMT-F.03	Wire Nails	1 Kg	52
125	BMT-F.04	Mild Steel Tubes & pipes of all diameters as per IS-1161	1 Kg	55
126	BMT-F.06	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & diameters for - 304 Grade	1 Kg	331
127	BMT-F.07	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type A - IOWA Type Designation as per standard specification	1 Kg	73
128	BMT-F.08	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type B - Glidden Type Designation as per standard specification	1 Kg	73
129	BMT-F.09	Expanded metal sheets as per IS-412-1962- Light Weight-25 mm(SWM)x75 mm (LWM)3.25 mm Wide and 1.25 mm thick	1 Sqm	131
130	BMT-F.10	Expanded metal sheets as per IS-412-1962- Light Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	131
131	BMT-F.11	Expanded metal sheets as per IS-412-1962- Light Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	131
132	BMT-F.12	Expanded metal sheets as per IS-412-1962- Medium Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 1.60 mm thick	1 Sqm	178
133	BMT-F.13	Expanded metal sheets as per IS-412-1962- Medium Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	178
134	BMT-F.14	Expanded metal sheets as per IS-412-1962- Medium Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	178
135	BMT-F.15	Expanded metal sheets as per IS-412-1962- Heavy Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 2.24 mm thick	1 Sqm	203
136	BMT-F.16	Expanded metal sheets as per IS-412-1962- Heavy Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	203
137	BMT-F.17	Expanded metal sheets as per IS-412-1962- Heavy Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	203
138	BMT-F.18	Galvanized Iron fly proof wire mesh of not less than 20 gauge	1 Sqm	203
139	BMT-F.19	Stainless steel fly proof wire mesh of not less than 20 gauge	1 Sqm	446
140	BMT-F.20	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	404
141	BMT-F.21	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	360
142	BMT-F.22	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	287

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
143	BMT-F.23	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	202
144	BMT-F.24	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	487
145	BMT-F.25	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	404
146	BMT-F.26	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	333
147	BMT-F.27	Hot dipped Galvanised Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	260
148	BMT-F.28	Rabbit wire mesh (chicken mesh) of not less than 30 gauge	1 Sqm	15
149	BMT-F.29	Supply & fixing of Rolling shutter made of 80 x 1.25 mm machine rolled CRCA laths, interlocked together through their entire length and jointed together at the ends by end-locks, mounted on specially designed pipe shaft of 50mm dia nominal bore MS B class pipe with brackets, plates, guide channels, stoppers, bottom locking plates and arrangements for inside & outside locking with push-pull operations including cost of hood cover and springs complete, painted with one coat of approved steel primer, locks, ball bearings, all accessories etc complete for finished item of work as per special spn: 1108	1 Sqm	2907
150	BMT-F.30	Supplying & fixing collapsible steel shutters with vertical, double channel of 20 x10x2 mm of 100 mm centre ,Bracers with flat iron 40x40x6 mm with 38 mm dia steel pulleys, the top, bottom and side vertical frames of the collapsible gate with 65x65mmx8mm MS Angle and middle guide rail at site height with 65mmx8mm MS flat for the pulleys to guide and fixed with necessary hold fasts, bolts, nuts, rivets, locking arrangements, stoppers, handles, all accessories all fixtures and painted with one coat of approved steel primer etc., complete for finished item of work as per special spn 1105	1 Sqm	2543
151	BMT-F.31	Powder Coated Mild Steel Hallow single rebate door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile size of 105 x 60 mm conforming to IS 4351 - 2003 including pretreatment, Galvanized as per IS:277, zinc phosphating finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 60 – 65 microns(Dry film thickness)Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors	1 RM	589

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
152	BMT-F.32	Providing Epoxy Shield fusion bonded Anti Corrosive epoxy coating to reinforcement bars as per IS-13620-993 specifiacaion for a thickness of 175 (+50) microns including extra cost on account of careful handling, extra cost on account of using PVC coated binding wire instead of G. I. wire, extra cost on account of touch-up material supplied by coating agency and repair work extra cost on account of transportation to and fro from steel yard to plant and Plant to work site by trailer, loading, unloading, complete		
		For Reinforcement Diameterwise Rates		
153	BMT-F.32-A	8 mm dia.	MT	13474
154	BMT-F.32-B	10 mm dia.	MT	12233
155	BMT-F.32-C	12 mm dia.	MT	11406
156	BMT-F.32-D	16 mm dia.	MT	11075
157	BMT-F.32-E	20 mm dia.	MT	10329
158	BMT-F.32-F	25 mm dia	MT	9561
159	BMT-F.32-G	28 mm dia.	MT	9127
160	BMT-F.32-H	32 mm dia.	MT	8476
	G.	FIXTURES FOR DOORS & WINDOWS		
161	BMT-G.01	Brass Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	150
162	BMT-G.02	Brass Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	231
163	BMT-G.03	Brass Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	317
164	BMT-G.04	Brass Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	365
165	BMT-G.05	Brass Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	449
166	BMT-G.06	Aluminium Tower Bolt-10 mm Bolt (IS:204) 75 mm Long	Each	62
167	BMT-G.07	Aluminium Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	76
168	BMT-G.08	Aluminium Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	93
169	BMT-G.09	Aluminium Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	114
170	BMT-G.10	Aluminium Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	137
171	BMT-G.11	Aluminium Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	160
172	BMT-G.12	Aluminium Tower Bolt-10 mm Bolt (IS:204) 350 mm Long	Each	430
173	BMT-G.13	Aluminium Tower Bolt-10 mm Bolt (IS:204) 450 mm Long	Each	544
174	BMT-G.14	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	24
175	BMT-G.15	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	35
176	BMT-G.16	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	51
177	BMT-G.17	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	68
178	BMT-G.18	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	85

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
179	BMT-G.19	Brass Butt hinges (IS:205)- 75 mm Long	Each	67
180	BMT-G.20	Brass Butt hinges (IS:205)- 100 mm Long	Each	203
181	BMT-G.21	Brass Butt hinges (IS:205)- 125 mm Long	Each	246
182	BMT-G.22	Brass Butt hinges (IS:205)- 150 mm Long	Each	324
183	BMT-G.23	Aluminium Butt hinges (IS:205)- 75 mm Long	Each	90
184	BMT-G.24	Aluminium Butt hinges (IS:205)- 100 mm Long	Each	107
185	BMT-G.25	Aluminium Butt hinges (IS:205)- 125 mm Long	Each	129
186	BMT-G.26	Aluminium Butt hinges (IS:205)- 150 mm Long	Each	133
187	BMT-G.27	MS-Powder Coated Butt hinges (IS:205)- 75 mm Long	Each	11
188	BMT-G.28	MS-Powder Coated Butt hinges (IS:205)- 100 mm Long	Each	20
189	BMT-G.29	MS-Powder Coated Butt hinges (IS:205)- 125 mm Long	Each	31
190	BMT-G.30	MS-Powder Coated Butt hinges (IS:205)- 150 mm Long	Each	39
191	BMT-G.31	Aluminium Door Handles (IS:208) 75 mm Long	Each	60
192	BMT-G.32	Aluminium Door Handles (IS:208) 100 mm Long	Each	68
193	BMT-G.33	Aluminium Door Handles (IS:208) 125 mm Long	Each	102
194	BMT-G.34	Aluminium Door Handles (IS:208) 150 mm Long	Each	114
195	BMT-G.35	MS-Powder Coated Door Handles (IS:208) 125 mm Long	Each	32
196	BMT-G.36	MS-Powder Coated Door Handles (IS:208) 150 mm Long	Each	45
197	BMT-G.37	Brass Aldrop (IS:2681) 300 mm long	Each	1087
198	BMT-G.38	Brass Aldrop (IS:2681) 350 mm long	Each	2094
199	BMT-G.39	Brass Aldrop (IS:2681) 450 mm long	Each	2982
200	BMT-G.40	Aluminium Aldrop (IS:2681) 200 mm long	Each	266
201	BMT-G.41	Aluminium Aldrop (IS:2681) 250 mm long	Each	315
202	BMT-G.42	Aluminium Aldrop (IS:2681) 300 mm long	Each	342
203	BMT-G.43	MS-Powder Coated Aldrop (IS:2681) 200 mm long	Each	93
204	BMT-G.44	MS-Powder Coated Aldrop (IS:2681) 250 mm long	Each	122
205	BMT-G.45	MS-Powder Coated Aldrop (IS:2681) 300 mm long	Each	146
206	BMT-G.46	Brass Door Stoppers	Each	168
207	BMT-G.47	Brass Windows Stay	Each	181
208	BMT-G.48	Aluminium Flat Latches: 200 mm long	Each	129
209	BMT-G.49	Aluminium Flat Latches: 250 mm long	Each	145
210	BMT-G.50	Aluminium Flat Latches: 300 mm long	Each	159
211	BMT-G.51	MS-Powder Coated Flat Latches: 250 mm long	Each	52
212	BMT-G.52	MS-Powder Coated Flat Latches: 300 mm long	Each	66
213	BMT-G.53	MS-Powder Coated - Door Stoppers	Each	45
214	BMT-G.54	Supply & fixing drapery rods (25.4 mm) 1" x 21 G Powder coated with PVC rings	RM	108
215	BMT-G.55	Supply & fixing drapery bracket - brass powder coated	pair	402
216	BMT-G.56	Deluxe window stay Aluminium	Each	122

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
217	BMT-G.57	Heavy duty Aluminium Door stopper	Each	53
218	BMT-G.58	Brass fancy handles 150 mm	Each	284
219	BMT-G.59	Brass fancy handles 200 mm	Each	384
220	BMT-G.60	Brass fancy handles 250 mm	Each	693
221	BMT-G.61	Brass fancy handles 300 mm	Each	885
222	BMT-G.62	Brass fancy handles 450 mm	Each	1384
223	BMT-G.63	Providing and fixing Cast Iron Body Bottle Type Hydraulic Door Closer (IS: 3564) with double speed adjustment, with necessary accessories and screws etc. complete	Each	876
224	BMT-G.64	Double action Stainless steel cover plate and cast body iron floor spring (IS 6315- Table-1)	Each	1700
225	BMT-G.65	Double action Brass cover plate and cast brass body floor spring (IS 6315- Table-1)	Each	4032
226	BMT-G.66	Heavy duty mortise lock 6/7 levers (IS:2209) with PC or CP handles complete set	Each	792
227	BMT-G.67	Heavy duty mortise lock 6/7 levers (IS:2209) with brass heavy handles	Each	2036
228	BMT-G.68	Brass latch heavy 300 mm	Each	545
229	BMT-G.69	Brass latch heavy 350 mm	Each	626
230	BMT-G.70	Brass latch heavy 450 mm	Each	826
231	BMT-G.71	Friction stay hinges for windows	Each	91
232	BMT-G.72	Keyless lockset for toilet doors with CP or PC knob handles (complete set)	Each	295
233	BMT-G.73	Keyless lock set for toilet doors with brass knob handles	Each	780
234	BMT-G.74	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-1: for width of doors up to 700 mm)	Each	1014
235	BMT-G.75	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-2: for width of doors 701 to 850 mm)	Each	1140
236	BMT-G.76	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-3: for width of doors 851 to 1000 mm)	Each	1196
237	BMT-G.77	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S./ Brass cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 130 kgs)	Each	3368
238	BMT-G.78	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S.cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 80 kgs)	Each	2504

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
239	BMT-G.79	Providing of brass cast body Floor Spring IS: 6315 sleek in size with the S.S. / Brass Cover plates of Length 320 mm x Breadth 130 mm size along with the Top Patch, Bottom Patch, Door Lock and Pivot with Double Cylinder etc. complete for Heavy duty Glass doors.	Each	10593
	H.	WATER PROOFING CHEMICALS & ADMIXTURES <i>Literature for usage / application of construction / water proofing materials, epoxies etc, may be obtained from manufacturers.</i>		
240	BMT-H.01	Providing waterproofing treatment by supplying and applying Rainseal HDP 1500 /ROOFSHIELD-1500 OR ZORISHIELD-1500 equivalent (1.50 mm thickness, 2.25Kg per Sq. Mt and 20 X1 Mtr. roll with a centre core of 90 micron thickness HMHDPE film) Water Proofing Membrane. A) apply one coat of Bituminous Emulsion, first coat of bituminous grade 85/25, fix "Rainseal HDP 1500/ROOFSHIELD-1500 OR equivalent " water proofing membrane, apply second coat of Bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and apply one coat of Rainseal SAP-BITUMINOUS ALUMINIUM PAINT for heat resistance for finished item	1sqm	957
241	BMT-H.02	Low viscosity Epoxy resin injection grout (Two parts) :Rapidstrong Grout EP/Expacrete SNE 1 or Zorigrout EP or Equivalent.(Density 1.07 Kg Per Ltr)	Kg	567
242	BMT-H.03	Epoxy Resin Grouts: Rapidstrong Grout EP3/ Expacrete SNE 3 or Zorigrout EP 3 or Equivalent.	Kg	247
243	BMT-H.04	Non-metalic Floor Hardeners : Rapidstrong NH/Flortop SNC or Zorifloor DH or Equivalent. (Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance)	Kg	16
244	BMT-H.05	Non oxidizing, heavy duty metallic Floor Hardeners: Rapidstrong FM/ Flortop SNS or Zorifloor NH or Equivalent.	Kg	305
245	BMT-H.06	Epoxy Floor coating: Procoat SNF or Food neutral Epoxy waterproof / dampproof coating : Roofcare EP/ Zoricoat EP or Equivalent. (Coverage : 70 to 80 SFT / Per Ltr / coat)	Kg	610
246	BMT-H.07	Supply of anti-corrosion admixture inhibitor liquid as per Central Electro Chemical Research Institute developed specification and licensee of Concure or Concure Plus or Equivalent (300 ml to 500 ml per Bag of 50 Kgs Cement)	Litre	301
247	BMT-H.08	Surface Treatments curing compounds: HI-CURE 01 or Roofex WB /Roofcoat/ Zoricoat	Kg	57
248	BMT-H.09	Surface Treatments Polyurethane curing compounds: HI-CURE 02 or Roofex WXB/ Roofcare PU/ Zoricoat PU	Kg	66
249	BMT-H.10	Supply of Concure-XL Anti Corrosion and leak proof Crack Proof ,Water Proof ,Concrete Hardener Admixture liquid Dosage (200 ml to 250 ml per Bag of Cement	Litre	271

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
250	BMT-H.11	Supply and application of premixed, non-metallic, ready to use powder, designed for application as a dry shake over freshly floated concrete floors or floor screeds to obtain a monolithic floor with enhanced abrasion resistance MASTERTOP 100 (GREY) of BASF	1 Kg	36
251	BMT-H.12	Supply of Concure-Plus Admixture Anti Corrosion and leak proof Weather Proof, Concrete Hardener Admixture.Dosage (200 ml to 250 ml per Bag of Cement)	1 Litre	271
252	BMT-H.13	Supply of Concure-LP polymer based, leak proof, Admixture liquid, dosage (250 ml to 300 ml per Bag of Cement)	1 Litre	186
253	BMT-H.14	Supply Con- life –Water Proof, Leak Proof, Concrete Hardener, Rust Proof, Admixture Liquid Dosage (200 ml to 250 ml per Bag of Cement)	1 Litre	271
254	BMT-H.15	Supply of Contech – 2000 bio Product (Powder) Anti Corrosion leak proof, Crack Proof ,Chemical Resistant, whether proof, inhibitor liquid. Dosage (5 to 10% of cement weight Cement) and 15% in serve environmental Condition like marine structures / coastal structures and chemical structures,Godowns, effect	1 Kg	296
255	BMT-H.16	Supply of Con – Cura Self Curing Agent Admixture for Concrete. Dosage (100 ml – 250ml per bag (50kgs) of cement depending on the atmospheric temperature and humidity)	1 Litre	1312
256	BMT-H.17	Supply of Con – Grout Epoxy Pourable Crack / Gap Filling Grout System. Dosage (Varies with climate, Site / Substrate Status. Average density is 1.20 Kg / ltr (System)	1 Kg	3217
257	BMT-H.18	Supply of Con Mix – XL Liquid super Plasticizer And Waterproofing With Anti Corrosive properties. Dosage (100 MI – 1ltr Per bag (50Kg)of Cement) Dosage Should be finalized after initial site trials	1 Litre	487
		PLASTICIZERS		
258	BMT-H.19	Concrete Plasticizers and Water reducing admixture Conforming to IS:9103-99	1 kg	53
259	BMT-H.20	Early High Strength, High water retention, polycarboxylic plasticizers Conforming to IS:9103-1999	1 Kg	97
260	BMT-H.21	High performance super plasticizer and water reducing admixture Conforming to IS: 9103-1999	1 Kg	85
261	BMT-H.22	Super plasticizer for high range water reducing admixture Conforming to IS: 9103-1999	1 Kg	93
262	BMT-H.23	Super plasticizer, high range water reducing and retarding admixture complying with IS:9103-1999	1 Kg	72
263	BMT-H.24	Plasticizer for accelerator for sprayed concrete Conforming to IS: 9103-1999.	1Kg	68
		WATER PROOFING COMPOUNDS		
264	BMT-H.25	Integral Cement Waterproofing Liquid Conforming to IS: I.S. 2645-2003	1 Ltr	86

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
265	BMT-H.26	High durable cementitious acrylic based waterproofing systems	1 Kg	110
266	BMT-H.27	Acrylic Polymer Elastomeric Cementitious Waterproof Coatings	1 kg	214
267	BMT-H.28	Single component, elastomeric waterproof membrane coating	1 Ltr	386
268	BMT-H.29	Quick setting, rapid hardening and water proofing compound Conforming to IS: I.S. 2645-2003	1 Ltr	73
269	BMT-H.30	Highly Flexible Waterproof Acrylic Elastomeric bituminous Blended Coatings	1 Ltr	271
		BONDING AGENTS		
270	BMT-H.31	Acrylic based Bonding adhesive	1 kg	258
271	BMT-H.32	Styrene butadiene rubber based bonding agent	1 Kg	330
272	BMT-H.33	Two Parts system of Epoxy Bonding adhesive Conforming to ASTM-C 881	1 Kg	525
		ANTI-CORROSIVE AGENTS		
273	BMT-H.34	Acrylic based Anti corrosive coating	1 Ltr	305
274	BMT-H.35	Rust converter –rust encapsulating coating for steel	1 Ltr	440
275	BMT-H.36	High range of reinforcement / steel protector against corrosion zinc rich epoxy resin primer	1 Kg	500
276	BMT-H.37	Anti corrosion CRPPC (Corrosion Resistant) inhibitive admixture	1 Ltr	315
		GROUTS		
277	BMT-H.38	High Power Polyester Resin Anchor Grout Conforming to ASTM-827	1 Kg	277
278	BMT-H.39	Non-shrink Free flow high strength precision grout Conforming to BS 1881 Part 1161983.	1 Kg	23
279	BMT-H.40	Low viscosity Epoxy resin injection grout	1 Kg	500
280	BMT-H.41	Three component epoxy grout Conforming to IS: ASTM 827 (Three components)	1 Kg	147
		MISCELLANEOUS CHEMICALS		
281	BMT-H.42	Mould / Shutter releasing oil	1 Ltr	136
282	BMT-H.43	Non oxidizing, heavy duty metallic Floor Hardeners	1 Kg	34
283	BMT-H.44	Non-metallic Floor Hardeners	1 Kg	24
284	BMT-H.45	High Strength, Non shrink Micro Concrete for structural repair product.	1 Kg	28
285	BMT-H.46	Structural graded polymer modified reinstatement concrete / mortar (Two Part System)	1 Kg	48
286	BMT-H.47	Three Component high performance elastomeric mortar.	1 Kg	839
287	BMT-H.48	Surface treatment crystalline product.	1 Kg	262
288	BMT-H.49	Polyurethane Sealant. 600 ml tube	1 No.	400

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
289	BMT-H.50	Polysulphide Sealant.	1 Kg	392
290	BMT-H.51	Acrylic Latex caulking compound.	1 Kg	279
291	BMT-H.52	Fast setting cement based plugging compound	1 Kg	75
292	BMT-H.53	Highly Flexible High Range Polyurethane surface coatings	1 Ltr	449
293	BMT-H.54	Coal Tar Epoxy	1 Kg	262
294	BMT-H.55	Water Based Acrylic Blended High power curing compound	1 Kg	94
295	BMT-H.56	Bituminous hot sealing compound	1 Kg	112
296	BMT-H.57	Bitumen solution primer coating.	1 Kg	78
297	BMT-H.58	Air Entraining Agent Conforming to IS: 9103-99	1 Ltr	112
		REPAIRING & TREATMENT WORKS		
298	BMT-H.59	Providing Tar Felting roof repair with approved brand Tar Felt duly applying one coat of appropriate grade of bitumen in hot condition @ 0.2 Kg/1 Sqm of roof area, fixing tar felt (Conforming to IS 1322-1972 specification), applying second coat of appropriate grade of hot bitumen at 1.20 Kg / 1 Sqm of roof area and spreading course aggregate (sand) at 0.063 Cum per 1 Sqm of roof area finished item.	1 Sqm	252
299	BMT-H.60	Providing waterproofing treatment by supplying and fixing synthetic membrane felt of 1.50 mm thickness, 2.25 Kg per Sq. Mtr. duly applying one coat of Bituminous Emulsion, first coat of bituminous grade 85/25, fix waterproofing membrane, applying second coat of bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and applying one coat of bituminous aluminum paint for heat resistance for finished item.	1 Sqm	345
300	BMT-H.61	Providing and laying of 3mm thick app modified bitumen membrane treatment to the terrace duly [1] removing of existing tar felt. [2] Cleaning of the surface from dirt, dust and other contaminations. [3] application of one coat of Bitumen primer [4] providing and laying of 3mm thick APP Modified Bitumen Membrane with 100 mm overlap fixing with butane torch.	1 Sqm	471
301	BMT-H.62	providing specialized high performance acrylic polymer modified elastomeric cementitious waterproof coating to the terrace / walls / internal portion of the bathroom & toilets / internal portion of the water tanks duly cleaning of the surface from dirt, dust and other contaminations, providing and application of Two coats of High performance Acrylic polymer modified Elastomeric cementitious waterproof coating (1.8 Sq. Mtr. / Kg /Each Coat)	1 Sqm	381
302	BMT-H.63	Providing specialized high build, elastomeric acrylic bituminous blended coating to the terrace / internal portion of the bathroom / toilets / basements / roofing duly a). Cleaning of the surface. b). Applying primer coat of High Build, Elastomeric Acrylic Bituminous Blended Coating c). Application of Two coats of High Build, Elastomeric Acrylic Bituminous Blended Coating	1 Sqm	372

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
303	BMT-H.64	Providing specialized high solid, cold applied, acrylic elastomeric liquid membrane coating treatment to the terrace / roofing with fiber mesh / geo fabric duly a. Cleaning of the surface from dirt, dust and other contaminations. b. Applying one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating c. immediately, Application of one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating e. Laying of fiber mesh 40 GSM / Geo fabric 40 GSM on the surface. f. Over the Fiber mesh, Application of two coats of High solid, cold applied, Acrylic Elastomeric Liquid Membrane Coating	1 Sqm	567
304	BMT-H.65	Providing specialized polysulphide sealant treatment to the expansion joints (Size : 25mm x 12mm) duly a]. Chipping and removing of existing covering on expansion joints b]. Cleaning of the surface from dirt, dust and other contaminations c]Application of one coat of - High performance specially designed SBR latex polymer based bonding agent d]. Providing and application of Acrylic Polymer modified reinstatement concrete /mortar to the damaged edges of joint and making the groove. e]. Providing and fixing of masking tape on top of the joint both sides f]. Providing and fixing of Back up support material of Backer rod to leave the depth of 12mm on the joint g]. Providing and application of one coat of polysulphide primer on inner edges of Joint. h]. Providing and application of Two part Polysulphide sealant to a width of 25mm and 12mm depth with putty knife and neat finish i]. Removing of masking tape and providing and application of two coats of Acrylic elastomeric cementitious coating	1 RM	567
305	BMT-H. 66	Pre construction Anti termite is a process in which chemical toxic to subterranean termites is apply/ inject into soil during early stage of building Construction 2. Treatment of soil Beneath the building and around the foundations conduct and chemical use as per BIS - IS 6313 (Part -2) 2013 code specification & CIB RC registered termiticide which creates a continuous chemical barrier beneath the building which kills or repels terminates & impervious to tremite entry 3. Imidacloprid 30.5% SC (IS 63131) dissolve 2.1 MI/1 liter of water and apply emulsion/solution @ 7.5 Litres/Square meter (Sqm) of internal, external vertical surface of the columns , plinth beams (Back filling) walls and floor junction, external perimeters, along reatining wall @ 5.0 Liters/Sqm of the horizontal surface of basement top surface of the basement filling below flooring bed (Plinth) & @ 2.0 Litres/ Line meter at expansion joints. The substructure of a depth of 500mm around coulmns & 300mm deep around plinth beams, basements & floor filling area including excavation channel along the wall & rodding etc. cost & Conveyance of all	1 Sqm	150

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		materials to the site, cost of labour for sparying, rodding etc. complete for furnished item of work as per the approval of the Engineer-in-charge		
306	BMT-H. 67	Imidacloprid 30.5% SC. Permise SC for pre & post - Construction Anti Termite treatment	1 Litre	3141
		GLASS (Landing cost –including loading, cost of conveyance & unloading)		
307	BMT-I.01	Plain Float Glass 4 mm thick	1 sqm	373
308	BMT-I.02	Plain Float Glass 5 mm thick	1 sqm	474
309	BMT-I.03	Plain Float Glass 6 mm thick	1 Sqm	593
310	BMT-I.04	Plain Float Glass 8 mm thick	1 Sqm	789
311	BMT-I.05	Plain Float Glass 10 mm thick	1 Sqm	830
312	BMT-I.06	Plain Float Glass 12 mm thick	1 Sqm	996
313	BMT-I.07	Tinted - Bronze/ Green Glass 4 mm thick	1 sqm	436
314	BMT-I.08	Tinted - Bronze/ Green Glass 5 mm thick	1 sqm	545
315	BMT-I.09	Tinted - Bronze/ Green Glass 6 mm thick	1 Sqm	654
316	BMT-I.10	Tinted - Bronze/ Green Glass 8 mm thick	1 Sqm	935
317	BMT-I.11	Tinted - Bronze/ Green Glass 10 mm thick	1 Sqm	1090
318	BMT-I.12	Tinted - Bronze/ Green Glass 12 mm thick	1 Sqm	1375
319	BMT-I.13	Pin headed Glass 4 mm thick	1 sqm	280
320	BMT-I.14	Pin headed Glass 5 mm thick	1 sqm	364
321	BMT-I.15	Frosted / Ground Glass 4 mm thick	1 sqm	503
322	BMT-I.16	Frosted / Ground Glass 5 mm thick	1 sqm	632
323	BMT-I.17	Toughened Plain Glass 5 mm (including Glass)	1 sqm	758
324	BMT-I.18	Toughened Plain Glass 6 mm (including Glass)	1 sqm	875
325	BMT-I.19	Toughened Plain Glass 8 mm (including Glass)	1 sqm	1167
326	BMT-I.20	Toughened Plain Glass 10 mm (including Glass)	1 sqm	1399
327	BMT-I.21	Toughened Plain Glass 12 mm (including Glass)	1 sqm	1633
	J.	PAINTS & POLISHES (Landing cost –including loading, cost of conveyance& unloading)		
328	BMT-J.01	Supply of water based Cement Primer of Interior Grade- 1	1 Kg	141
329	BMT-J.02	Supply of water based Cement Primer of Exterior Grade- 2	1 Kg	180
330	BMT-J.03	Supply of Red Oxide Primer Paint for iron works of Grade -1	1 Litre	121
331	BMT-J.04	Supply of Zinc Chromate Yellow Oxide Primer paint for iron works	1 Litre	166
332	BMT-J.05	Supply of Wood Primer	1 Litre	130
333	BMT-J.06	Supply of Metal paste (Putty) for steel works	1 Kg	130

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
334	BMT-J.07	Supply of Putty for wood work	1 Kg	130
335	BMT-J.08	Supply of White Lead	1 Kg	93
336	BMT-J.09	Supply of Synthetic clear Varnish	1 Litre	130
337	BMT-J.10	Supply of Spirit	1 Litre	91
338	BMT-J.11	Supply of Linseed Oil	1 Litre	52
339	BMT-J.12	Supply of thinner for melamine polish/ french polish	1 Litre	119
340	BMT-J.13	Supply of thinner for Poly-urethane polish	1 Litre	244
341	BMT-J.14	Supply of French Polish	1 Litre	170
342	BMT-J.15	Supply of ready made Wax Polish	1 Kg	514
343	BMT-J.16	Supply of Melamine Polish	1 Litre	285
344	BMT-J.17	Supply of Interior Grade Poly-Urethane Polish	1 Litre	579
345	BMT-J.18	Supply of Exterior Grade Poly-Urethane Polish	1 Litre	708
346	BMT-J.19	Supply of wood adhesive compound	1 Kg	201
347	BMT-J.20	Supply of Dry Powder Distemper	1 Kg	38
348	BMT-J.21	Supply of acrylic based Oil Bound washable Distemper	1 Kg	77
349	BMT-J.22	Supply of synthetic polymer luxury plastic emulsion paint of superior grade having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	404
350	BMT-J.23	Supply of Water proof Cement paint	1 Kg	46
	BMT-J.23a	Supply of acrylic interior emulsion paint having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	195
351	BMT-J.24	Supply of acrylic exterior emulsion paint having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	168
352	BMT-J.25	Supply of water proof Cement paint pack	25 Kg	1121
353	BMT-J.26	Supply of paint grade white lime for wash	25 Kg	490
354	BMT-J.27	Supply of anti-corrosive grade - 1 bitumen paint of black colour	1 Litre	465
355	BMT-J.28	Supply of grade-1 aluminium paint	1 Litre	231
356	BMT-J.29	Supply of ready mixed Synthetic Enamel paints in all shades Grade - I having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	225
357	BMT-J.30	Supply of ready mixed Synthetic Enamel paints in all shades Grade - II having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	172
358	BMT-J.31	Supply of wall putty of White Cement or Polymer or Cement based	25 Kg	713
359	BMT-J.32	PMCC / Deco orient base or Equivalent exterior Texture.	25 Kg	815
360	BMT-J.33	PMCC or Equivalent Gold line Exterior Texture	25 Kg	1060
361	BMT-J.34	Supply of acrylic emulsion paint exterior grade with silicon additives having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1Lit	184
362	BMT-J.35	Supply of acrylic emulsion paint weather proof water-based, modified acrylic with silicon additives exterior grade having	1Lit	203

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		VOC (Volatile Organic Compound) content less than 50 grams/ liter.		
	K.	PARTICLE BOARDS (Landing cost –including loading, cost of conveyance, unloading)		
363	BMT-K.01	Melamine faced Single Deco PPB- 8 mm thick	1Sqm	590
364	BMT-K.02	Melamine faced Single Deco PPB- 12 mm thick	1Sqm	670
365	BMT-K.03	Melamine faced Single Deco PPB- 18 mm thick	1Sqm	776
366	BMT-K.04	Melamine faced Single Deco PPB- 25 mm thick	1 Sqm	879
367	BMT-K.05	Melamine faced Single Deco PPB- 35 mm thick	1 Sqm	1463
368	BMT-K.06	Melamine faced Twin Deco PPB- 8 mm thick	1 Sqm	679
369	BMT-K.07	Melamine faced Twin Deco PPB- 12 mm thick	1 Sqm	776
370	BMT-K.08	Melamine faced Twin Deco PPB-18 mm thick	1 Sqm	898
371	BMT-K.09	Melamine faced Twin Deco PPB-25 mm thick	1 Sqm	995
372	BMT-K.10	Melamine faced Twin Deco PPB-35 mm thick	1 Sqm	1869
373	BMT-K.11	Natural Colour-Insulating Board - 12 mm thick	1 Sqm	242
374	BMT-K.12	Natural Colour-Insulating Board - 18 mm thick	1 Sqm	358
375	BMT-K.13	Natural Colour-Insulating Board - 25 mm thick	1 Sqm	414
376	BMT-K.14	White Insulating Board - 12 mm thick	1 Sqm	268
377	BMT-K.15	White Insulating Board - 18 mm thick	1 Sqm	383
378	BMT-K.16	White Insulating Board - 25 mm thick	1 Sqm	341
379	BMT-K.17	Medium Fibre Board: Interior Grade - 6 mm thick	1 Sqm	359
380	BMT-K.18	Medium Fibre Board: Interior Grade - 8 mm thick	1 Sqm	407
381	BMT-K.19	Medium Fibre Board: Interior Grade - 12 mm thick	1 Sqm	545
382	BMT-K.20	Medium Fibre Board: Interior Grade - 15 mm thick	1 Sqm	693
383	BMT-K.21	Medium Fibre Board: Interior Grade - 18 mm thick	1 Sqm	773
384	BMT-K.22	Medium Fibre Board: Interior Grade - 25 mm thick	1 Sqm	1208
385	BMT-K.23	Medium Fibre Board: Interior Grade - 30 mm thick	1 Sqm	1460
386	BMT-K.24	Medium Fibre Board: Interior Grade - 35 mm thick	1 Sqm	1592
387	BMT-K.25	Medium Fibre Board: Exterior Grade - 6 mm thick	1 Sqm.	488
388	BMT-K.26	Medium Fibre Board: Exterior Grade - 8 mm thick	1 Sqm.	569
389	BMT-K.27	Medium Fibre Board: Exterior Grade - 12 mm thick	1 Sqm.	753
390	BMT-K.28	Medium Fibre Board: Exterior Grade - 15 mm thick	1 Sqm.	946
391	BMT-K.29	Medium Fibre Board: Exterior Grade - 18 mm thick	1 Sqm.	1059
392	BMT-K.30	Medium Fibre Board: Exterior Grade - 25 mm thick	1 Sqm.	1411
393	BMT-K.31	Medium Fibre Board: Exterior Grade - 30 mm thick	1 Sqm.	1758
394	BMT-K.32	Medium Fibre Board: Exterior Grade - 35 mm thick	1 Sqm.	2077
395	BMT-K.33	MDF Board: Plain-Interior - 9 mm thick	1 Sqm	346

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
396	BMT-K.34	MDF Board: Plain-Interior - 12 mm thick	1 Sqm	393
397	BMT-K.35	MDF Board: Plain-Interior - 18 mm thick	1 Sqm	487
398	BMT-K.36	MDF Board: Plain-Interior - 25 mm thick	1 Sqm	584
399	BMT-K.37	MDF Board: Plain-Interior - 30 mm thick	1 Sqm	890
400	BMT-K.38	MDF Board: Plain-Interior - 35 mm thick	1 Sqm	1053
401	BMT-K.39	MDF Board: Plain-Exterior - 9 mm thick	1 Sqm	431
402	BMT-K.40	MDF Board: Plain-Exterior - 12 mm thick	1 Sqm	487
403	BMT-K.41	MDF Board: Plain-Exterior - 18 mm thick	1 Sqm	639
404	BMT-K.42	MDF Board: Plain-Exterior - 25 mm thick	1 Sqm	801
405	BMT-K.43	MDF Board: Plain-Exterior - 30 mm thick	1 Sqm	1053
406	BMT-K.44	MDF Board: Plain-Exterior - 35 mm thick	1 Sqm	1213
407	BMT-K.45	MDF Board: Interior-One Side Laminated -9 mm thick	1 Sqm	542
408	BMT-K.46	MDF Board: Interior-One Side Laminated -12 mm thick	1 Sqm	613
409	BMT-K.47	MDF Board: Interior-One Side Laminated -18 mm thick	1 Sqm	713
410	BMT-K.48	MDF Board: Interior-One Side Laminated -25 mm thick	1 Sqm	801
411	BMT-K.49	MDF Board: Interior-One Side Laminated -30 mm thick	1 Sqm	1158
412	BMT-K.50	MDF Board: Interior-One Side Laminated -35 mm thick	1 Sqm	1235
413	BMT-K.51	MDF Board: Exterior-One Side Laminated -9 mm thick	1 Sqm	623
414	BMT-K.52	MDF Board: Exterior-One Side Laminated -12 mm thick	1 Sqm	700
415	BMT-K.53	MDF Board: Exterior-One Side Laminated -18 mm thick	1 Sqm	793
416	BMT-K.54	MDF Board: Exterior-One Side Laminated -25 mm thick	1 Sqm	927
417	BMT-K.55	MDF Board: Exterior-One Side Laminated -30 mm thick	1 Sqm	1235
418	BMT-K.56	MDF Board: Exterior-One Side Laminated -35 mm thick	1 Sqm	1312
419	BMT-K.57	MDF Board: Interior-Both Side Laminated -9 mm thick	1 Sqm	590
420	BMT-K.58	MDF Board: Interior-Both Side Laminated -12 mm thick	1 Sqm	700
421	BMT-K.59	MDF Board: Interior-Both Side Laminated -18 mm thick	1 Sqm	801
422	BMT-K.60	MDF Board: Interior-Both Side Laminated -25 mm thick	1 Sqm	1006
423	BMT-K.61	MDF Board: Interior-Both Side Laminated -30 mm thick	1 Sqm	1235
424	BMT-K.62	MDF Board: Interior-Both Side Laminated -35 mm thick	1 Sqm	1312
425	BMT-K.63	MDF Board: exterior-Both Side Laminated -9 mm thick	1 Sqm	666
426	BMT-K.64	MDF Board: exterior-Both Side Laminated -12 mm thick	1 Sqm	792
427	BMT-K.65	MDF Board: exterior-Both Side Laminated -18 mm thick	1 Sqm	937
428	BMT-K.66	MDF Board: exterior-Both Side Laminated -25 mm thick	1 Sqm	1024
429	BMT-K.67	MDF Board: exterior-Both Side Laminated -30 mm thick	1 Sqm	1296
430	BMT-K.68	MDF Board: exterior-Both Side Laminated -35 mm thick	1 Sqm	1390
431	BMT-K.69	Cement bonded paricle board conforming to is 14276-6 mm thick	1 sqm	233
432	BMT-K.70	Cement bonded paricle board conforming to is 14276- 8 mm thick	1 sqm	311

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
433	BMT-K.71	Cement bonded paricle board conforming to is 14276- 10 mm thick	1 sqm	390
434	BMT-K.72	Cement bonded paricle board conforming to is 14276- 12 mm thick	1 sqm	479
435	BMT-K.73	Cement bonded paricle board conforming to is 14276- 16 mm thick	1 sqm	633
436	BMT-K.74	Cement bonded paricle board conforming to is 14276- 20 mm thick	1 sqm	771
437	BMT-K.75	Cement bonded paricle board conforming to is 14276- 25 mm thick	1 sqm	921
438	BMT-K.76	Cement bonded paricle board conforming to is 14276- 30 mm thick	1 sqm	1119
439	BMT-K.77	Cement bonded paricle board conforming to is 14276- 40 mm thick	1 sqm	1495
440	BMT-K.78	Pre laminated cement bonded particle board-6 mm thick	1 sqm	498
441	BMT-K.79	Pre laminated cement bonded particle board-8 mm thick	1 sqm	545
442	BMT-K.80	Pre laminated cement bonded particle board- 10 mm thick	1 sqm	583
443	BMT-K.81	Pre laminated cement bonded particle board- 12 mm thick	1 sqm	671
444	BMT-K.82	Pre laminated cement bonded particle board- 16 mm thick	1 sqm	714
445	BMT-K.83	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- 6mm thick	1 sqm	286
446	BMT-K.84	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- 8mm thick	1 sqm	346
447	BMT-K.85	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- 10mm thick	1 sqm	425
448	BMT-K.86	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- 12mm thick	1 sqm	523
449	BMT-K.87	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- 16mm thick	1 sqm	691
450	BMT-K.88	Cement Bonded Board conforming to IS:14862-2000 - 4mm Thick	1 Sqm	146
451	BMT-K.89	Cement Bonded Board conforming to IS:14862-2000 - 6mm Thick	1 Sqm	209
452	BMT-K.90	Cement Bonded Board conforming to IS:14862-2000 - 8mm Thick	1 Sqm	269
453	BMT-K.91	Cement Bonded Board conforming to IS:14862-2000 - 10mm Thick	1 Sqm	309
454	BMT-K.92	Cement Bonded Board conforming to IS:14862-2000 - 12mm Thick	1 Sqm	386
455	BMT-K.93	Cement Bonded Board conforming to IS:14862-2000 - 14mm Thick	1 Sqm	410

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
456	BMT-K.94	Cement Bonded Board conforming to IS:14862-2000 - 16mm Thick	1 Sqm	490
457	BMT-K.95	Cement Bonded Board conforming to IS:14862-2000 - 18mm Thick	1 Sqm	529
458	BMT-K.96	Cement Bonded Board conforming to IS:14862-2000 - 20mm Thick	1 Sqm	590
459	BMT-K.97	Laminate Sheets - Glossy Finish: 1 mm thick	1 Sqm	359
460	BMT-K.98	Laminate Sheets - Glossy Finish: 1.50 mm thick	1 Sqm	513
461	BMT-K.99	Laminate Sheets - Glossy Finish: 1.80 mm thick	1 Sqm	563
462	BMT-K.100	Laminate Sheets - Mat Finish: 1 mm thick	1 Sqm	362
463	BMT-K.101	Laminate Sheets - Mat Finish: 1.50 mm thick	1 Sqm	505
464	BMT-K.102	Laminate Sheets - Mat Finish: 1.80 mm thick	1 Sqm	544
465	BMT-K.103	Teak Veneer Lamination - 4 mm thick - Pencil Grains	1 Sqm	401
466	BMT-K.104	Teak Veneer Lamination - 4 mm thick - Natural Grains	1 Sqm	702
467	BMT-K.105	8 mm thick V-Designer Board	1 Sqm	363
468	BMT-K.106	50 mm thick V-PANEL	1 Sqm	907
469	BMT-K.107	75 mm thick V-PANEL	1 Sqm	1143
	L.	PLYWOOD <i>(Landing cost –including loading, cost of conveyance, unloading)</i>		
470	BMT-L.01	3 Ply - 4 mm thick Plywood(IS:303) MR Grade	1 Sqm	363
471	BMT-L.02	5 Ply - 6 mm thick Plywood(IS:303) MR Grade	1 Sqm	399
472	BMT-L.03	5 Ply - 8 mm thick Plywood(IS:303) MR Grade	1 Sqm	470
473	BMT-L.04	5 Ply - 9 mm thick Plywood(IS:303) MR Grade	1 Sqm	470
474	BMT-L.05	9 Ply - 12 mm thick Plywood(IS:303) MR Grade	1 Sqm	588
475	BMT-L.06	9 Ply - 15 mm thick Plywood(IS:303) MR Grade	1 Sqm	867
476	BMT-L.07	9 Ply - 18 mm thick Plywood(IS:303) MR Grade	1 Sqm	850
477	BMT-L.08	3 Ply - 4 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	414
478	BMT-L.09	5 Ply - 6 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	462
479	BMT-L.10	5 Ply - 8 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	576
480	BMT-L.11	5 Ply - 9 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	543
481	BMT-L.12	9 Ply - 12 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	710
482	BMT-L.13	9 Ply - 15 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	1020
483	BMT-L.14	9 Ply - 19 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	1023
484	BMT-L.15	3 Ply-4 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	561
485	BMT-L.16	5 Ply - 6 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	731
486	BMT-L.17	5 Ply - 9 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	894
487	BMT-L.18	9 Ply - 13 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	1193

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
488	BMT-L.19	5 Ply - 9 mm thick Both sides Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	1221
489	BMT-L.20	9 Ply - 12 mm thick Both sides Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	1359
	M.	CEILINGS, WALL PARTITIONS & WALL LININGS		
490	BMT-M.01	Gypsum Board tiles of size notless than 0.595 M x 0.595 M of 12.5 mm thick as per IS 2095 -1992	1 Sqm	238
491	BMT-M.02	Gypsum Board tiles of size notless than 0.595 M x 0.595 M of 9 mm thick as per IS 2095 -1992	1 Sqm	232
492	BMT-M.03	Gypsum Board Plain sheet 12.5 mm thick as per IS 2095 -1993	1 Sqm	210
493	BMT-M.04	G.I. Ceiling Angle - 25 mm x 10 mm x 0.55 mm	1 RM	63
494	BMT-M.05	G.I. Ceiling Section 51.5 mm x 26 mm x 10.5 mm x 0.55 mm thick	1 RM	72
495	BMT-M.06	G.I. Intermediate Section 45 mm x 15 mm x 15 mm x 0.9 mm	1 RM	71
496	BMT-M.07	G.I. Perimeter Channel - 20 mm x 27 mm x 30 mm (web) of 0.55 mm thick	1 RM	63
497	BMT-M.08	G.I.-Precoated Fine line Grid 25 mm x 25 mm x 0.7 mm	1 RM	35
498	BMT-M.09	G.I.-Precoated Fine line Grid 15 mm x 25 mm x 0.7 mm	1 RM	31
499	BMT-M.10	GI - Precoated - T-Sec- 24 mm x 38 mm x 0.7 mm thick	1 RM	46
500	BMT-M.11	Hot dipped GI Angle - Precoated - Grid: 19 mm x 19 mm	1 RM	34
501	BMT-M.12	Polyester painted GI - T Section - 24 x 32 mm	1 RM	42
502	BMT-M.13	Polyester painted GI - T Section - 24 x 25 mm	1 RM	38
503	BMT-M.14	Polyester painted GI - T Section - 24 mm x 27 mm	1 RM	39
504	BMT-M.15	Aluminium Angle : 24 mm x 24 mm	1 RM	24
505	BMT-M.16	Anodised Aluminium T Section : 24 x 24.5 x 2.4 mm	1 RM	29
506	BMT-M.17	Connecting Clips	1 Each	3
507	BMT-M.18	Rawl Plug	1 Each	2
508	BMT-M.19	6 mm Nylon Rawl Plug	1 Each	4
509	BMT-M.20	Soffit Cleats	1 Each	3
510	BMT-M.21	Drywall Screws - 25 mm	1 Each	2
511	BMT-M.22	Jointing Compound	1 Kgs	25
512	BMT-M.23	Jointing Paper Tape	1 RM	4
513	BMT-M.24	Drywall Top Coat	1 Litre	120
514	BMT-M.25	Universal Holding Clips	1 Each	3
515	BMT-M.26	4 mm Dia GI Connecting Rod	1 RM	11
516	BMT-M.27	2 mm Dia GI Connecting Rod	1 RM	8
517	BMT-M.28	14 mm - Mineral Fiber sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 80% RH, Average NRC 0.50, Light Reflectance >80%, Thermal Conductivity λ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	499

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
518	BMT-M.29	15 mm - Mineral Fiber sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 90% RH, Average NRC 0.50, Light Reflectance >80%, Thermal Conductivity λ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	584
519	BMT-M.30	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.60, Light Reflectance >88%, Thermal Conductivity λ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	629
520	BMT-M.31	12 mm - Mineral Fiber sheet 600 x 600 (Square / Tegular) Edge tiles	1 Sqm	386
521	BMT-M.32	Perforated wall panels channeled wood works sheets of width 128 mm, thickness of 16mm and length 2440 mm made of a high density particle board substrate with a laminated facing as per the approved shade /Species & Finish and a melamine balancing layer on the reverse side, with a special perforation pattern fluted perforation on the visible surface with a minimum sag resistance of RH90 and a fire rating class of 1 as per Part 7 of BS 476 with a "tongue-and-grooved" edges and the back of the perforated panel is with sound absorbing non-woven acoustical fleece	1 Sqm	2318
522	BMT-M.33	Vinyl Flooring Sheets/ tiles having a nominal total thickness of 2 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	720
523	BMT-M.34	Vinyl Composition Floor Tiles of size 305 mm x 305 mm having an overall thickness of 2.0mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	452
524	BMT-M.35	Vinyl Flooring Sheets or tiles having a nominal total thickness of 1.5 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	327
525	BMT-M.36	Supply of Thermocole 12 mm thick sheets	1 Sqm	22
526	BMT-M.37	Supply of Thermocole 19 mm thick sheets	1 Sqm	39
527	BMT-M.38	Supply & fixing 75mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall top coat as per specification.	1 Sqm	1044
528	BMT-M.39	Providing wooden panelling 12 mm thick Novapan one side laminated sheet fixed on wooden frame of BT wood size 50.8 mm x 25.4 mm (2"x1") at distance of 609.6mm (2'-0") intervals of both ways providing 3/4" x 1/2" (19.05 mm x 12.7 mm) size BT wood ornamental cover beading and necessary screws, fevicol glue complete for finished item of work.	1 Sqm	1405

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
529	BMT-M.40	Calcium Silicate Boards - 6mm thick	1 Sqm	188
530	BMT-M.41	Calcium Silicate Boards - 8mm thick	1 Sqm	250
531	BMT-M.42	Calcium Silicate Boards - 10mm thick	1 Sqm	314
532	BMT-M.43	Calcium Silicate Boards - 12mm thick	1 Sqm	376
533	BMT-M.44	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work- using 8mm thick Calcium silicate boards	1 Sqm	1184
534	BMT-M.45	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work - Using 10mm thick Calcium silicate boards	1 Sqm	1325
535	BMT-M.46	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work - Using 12mm thick Calcium silicate boards	1 Sqm	1465
536	BMT-M.47	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: using 8mmthick Calcium silicate boards	1 Sqm	702
537	BMT-M.48	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 10mm thick Calcium silicate boards	1 Sqm	773
538	BMT-M.49	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 12mm thick Calcium silicate boards	1 Sqm	844

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
539	BMT-M.50	Supply and Fixing 66mm thick metal stud partition using 2 layers of 12mm thick Calcium silicate boards screw fixed to either side to 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm. The boards joints are to be staggered to avoid through passage. Ceramic wool of 50mm thick, 64kg/m3 density is to be placed in cavity of the partition. The joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification with out painting for finished item of work	1 Sqm	3745
540	BMT-M.51	Supplying and fixing of false ceiling using Plaster of paris Boards 12 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	385
541	BMT-M.52	Supplying and fixing of false ceiling using Plaster of paris Boards 10 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	321
542	BMT-M.53	Designer ceiling Cement Boards -thickness 3.2 mm	1 Sqm	212
543	BMT-M.54	High pressure steam cured Cement Boards 4 mm thick	1 Sqm.	113
544	BMT-M.55	High pressure steam cured Cement Boards 6 mm thick	1 Sqm.	170
545	BMT-M.56	High pressure steam cured Cement Boards 8 mm thick	1 Sqm.	225
546	BMT-M.57	High pressure steam cured Cement Boards 10 mm thick	1 Sqm.	283
547	BMT-M.58	High pressure steam cured Cement Boards 12 mm thick	1 Sqm.	339
548	BMT-M.59	High pressure steam cured Cement Boards 14 mm thick	1 Sqm.	395
549	BMT-M.60	High pressure steam cured Cement Boards 16 mm thick	1 Sqm.	452
550	BMT-M.61	High pressure steam cured Cement Boards 18 mm thick	1 Sqm.	508
551	BMT-M.62	High pressure steam cured Cement Boards 20 mm thick	1 Sqm.	564
552	BMT-M.63	High pressure steam cured designer Cement Boards 4 mm thick	1 Sqm.	166
553	BMT-M.64	High pressure steam cured designer Cement Boards 6 mm thick	1 Sqm.	245
554	BMT-M.65	Supply and fixing of wall panelling (water, fire and Termite proof) with frame work made of GI stud profile of size 48 x 40 10 x 0.6 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and with 8 mm thick E-board / 6 mm thick E-board classic cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 8 mm Designer	1 Sqm.	816

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
555	BMT-M.66	Supply and fixing of wall panelling (water, fire and Termite proof) with frame work made of GI stud profile of size 48 x 40 x 10 x 0.6 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and with 8 mm thick E-board / 6 mm thick E-board classic cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 6 mm Designer	1 Sqm.	870
556	BMT-M.67	Supply and fixing double skin partition with Frame work made of GI stud profile of size 48 x 40 x 10 x 0.6 mm thick placed at every 610 mm C/C intervals and 915 mm horizontal intervals duly fixed with self expansion screws, the E-board of 8 mm thick cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving 3 mm gap between two panels of width 2'-0" (610 mm). The gap will be covered with decorative moulding surface will be given a smooth finish over cement primer. The rate is inclusive of cost and conveyance of all materials and labour charges etc. complete.	1 Sqm.	1195
557	BMT-M.68	Providing and fixing of 50mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 4mm thick non-asbestos fibre reinforced cement sheets on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 14x50x25 mm fixed to the existing floor with 6x60mm nylon self expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 1mm thick GI Channel of size 38x50x38mm duly fixed to the existing ceiling with 6x60mm nylon self expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 50mm SOLID WALL PANELS, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete	1 sqm	1476

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
558	BMT-M.69	Providing and fixing of 75mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 4mm thick non-asbestos fibre reinforced cement sheets on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 14x75x25 mm fixed to the existing floor with 6x60mm nylon self expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 1mm thick GI Channel of size 38x75x38mm duly fixed to the existing ceiling with 6x60mm nylon self expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 75mm SOLID WALL PANEL panels, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete.	1 Sqm.	1762
559	BMT-M.70	Supply and fixing of CEMENT BONDED PARTICLE BOARDS (IS 14276) false ceiling using 8MM CEMENT BONDED PARTICLE BOARDS with galvanized and pre painted steel T section of size 24mm x 38mm x 0.3 mm for main T duty pre punched to accept cross T section of size 24mm x 30mm x 0.3 mm duly punched at both ends for insertion into main T. The grid size will be 610mm x 610mm. The frame work (grid) is suspended to the roof by using G.I flat of 0.60mm or 14-gauge G.I wire with necessary fixers to the roof and frame work. CEMENT BONDED PARTICLE BOARDS lay on the grid. The cost inclusive of necessary hardware, labor, one coat of primer (Both side) and two coats of smooth finish on visible side.	1 Sqm	924
560	BMT-M.71	Supply and fixing CEMENT BONDED PARTICLE BOARDS (IS 14276) wall paneling using 10 MM CEMENT BONDED PARTICLE BOARDS with frame work made of GI stud section of size 48mm x 35mm x 0.55mm thick placed at every 610 mm C/C intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. CEMENT BONDED PARTICLE BOARDS is to be fixed to frame by means of self taping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat of Altek primer and two coats of Altek smooth finish and cost & conveyance of all materials, labor charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1161

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
561	BMT-M.72	Supply and fixing CEMENT BONDED PARTICLE BOARDS (IS 14276) double skin partition using with 10 MM CEMENT BONDED PARTICLE BOARDS made out of G.I. track section of size 50mmx 35mm x 0.55 mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals horizontally fixed to the wall by means of self expansion screws and caps to the wall and roof. CEMENT BONDED PARTICLE BOARDS is to be fixed both sides of frame work by using self tapping screws fixed at every 300mm intervals to the frame work leaving 3 mm gap between two panels. The cost inclusive with one coat of Alltek primer and two coats of Alltek smooth finish and cost and conveyance of all materials to site, labor charges etc., complete as per the direction of Engineer in charge.	1 Sqm	1696
562	BMT-M.73	Supply and fixing of CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS double skin partition using with 10 mm CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS made out of G.I track section of size 50 mm x 35mm x 0.55mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals horizontally. The frame is fixed by means of self expansion screws and caps to the wall / roof. LAM is to be fixed both sides of the frame work by using 2mm thick electro plated CR flat section leaving 3mm gap between two panels. The cost inclusive of cost and conveyance of all materials to sites, other materials incidentals and labour charges as per the direction of Engineer in charges.	1 Sqm	2336
563	BMT-M.74	Supply and fixing of CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS wall paneling using 12 MM CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS with frame work made of G.I stud section of size 48mm x 35mm x 0.55mm thick placed at every 610mm intervals vertically and at 1200mm intervals horizontally fixed to the wall by means of self expansion screws and caps. LAM is to be fixed to frame by means of self-taping screws placed at every 300mm intervals leaving 3mm gap between two panels. The cost inclusive of Conveyance of materials, Labor charges etc., complete as per the direction of Engineer in charge	1 Sqm	1763
564	BMT-M.75	Supply and fixing of CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS aluminum glazed partitions using 10 MM CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS and 5 mm thick plain glass to full height. Using with LAM to a height of 0.91 meter at bottom panel and remaining height with glass and aluminum sections anodized to 12 to 15 microns and of sections of size 37mm x 62mm and 1.5mm thickness with one meter centre to centre duly fixed with clip beading on both sides including fixing the frame to pillars by M.S. flats, bolts and nuts including cost and conveyance of all materials etc., complete as directed during execution.	1 Sqm	2908
565	BMT-M.76	Providing and fixing 50mm thick SEMI HEIGHT SOLID PVC PARTITION consisting of 49mm sandwich PVC panel made out of 36mm high density expanded polystyrene sheet(E.P.S.-Thermocole) stuck on both side with 2mm thick plain/printed /prelam PVC rigid foam sheets reinforced with frame work made from 35mmX5mm M.S. Angle. In between two M.S. Angles 5mm thick plain/printed/prelam heat moulded "Rajshri" PVC 'C' channel of size 50X100mm with feathered edges shall be fixed on the floor	1 sqm	2576

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		&50X75mm with feathered edges plain/printed /prelam PVC 'C' channel. In between adjoining EPS sandwiched PVC partitions panel 5mm thickX75mm width plain/printed/prelam PVC sheet feathered at edges shall be stuck on front & back face using solvent cement etc. in places where two partitions meet to form an 'L' shape the panels are joined 5mm thick plain/printed/prelam heat moulded "Rajshri" PVC 'L' section of size 75mmX75mm with feathered edges shall be fixed on front & back side. This is done to maintain the symmetry of design. An additional 5mm thick PVC strip of 40mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive, complete as per direction of Engineer-in-Charge, manufacture's specification & drawing		
566	BMT-M.77	Providing and fixing INSULATED PVC WALL PANELING shall consist of PVC insulated panels having wall thickness of 1mm /1.5mm/2mm PVC sheet and the desired thickness of EPS (dependent on the insulation required) screwed into the wall using screws of adequate length. The screws shall be placed at a distance of 150mm and shall be 25mm from the edge of the insulated panel on all four sides of the panel. The PVC strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck using solvent cement adhesive at the places where two panels are joined, so as to cover the screw of both the panels, using solvent cement. 90 heat bent strips of 5mm thick PVC sheets of width 75mm X75mm feathered at the edges shall be stuck at wall joints / pillars etc. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 sqm	1696
567	BMT-M.78	Providing and fixing plain PVC rigid foam sheet wall panelling of thickness 5mm consisting of panels having size 1220mm X2440mm stuck on inner frame work of 25mm wide strips of 5mm thick PVC rigid foam sheet. The strips should have in their centre a groove of 6mm width and 2mm depth for sinking the head of the screw used to fix the strips to the wall and should be placed vertically at equal intervals of 405/407mm centre to centre. The PVC strips shall be fixed to the wall using 65mm long M.S. screws through the groove in the strip by using PVC fasteners. The distance between two screws shall not be more than 300mm. a groove of 2mm may be left at the joint of two panels for aesthetic looks. This framework is done for making existing wall surface in ensured level and for sticking the wall panelling sheet (panel) on it. The exact size of the panel and correspondingly of the grid may be varied depending on the size of the wall. However it must be ensured that a strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck at the places where two panels are joined, using solvent cement. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 sqm	1612

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
568	BMT-M.79	Providing and fixing false ceiling consisting of 600mmX600mm, Solid PVC insulation panels having wall thickness of 1mm thick plain PVC rigid foam sheet and EPS as defined in of desired thickness depending on insulation required shall be insert in a frame work made using anodized aluminium Tee section of sizes 1"X1" (25X25mm, 19 gauge or 1mm thick) in square pattern of grid sizes of 2'X2' (600X600mm). The aluminium framework is supported from the ceiling with the help of G.I. hook and G.I. wire/6mm.M.S. rods of required sizes to maintain proper level etc. the aluminium framework is supported on side wall with the use of aluminium 1"X1" (25X25mm) angles, complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 sqm	1179
569	BMT-M.80	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 13 mm thick Square Edge - Fissura Fine Model	1 Sqm	321
570	BMT-M.81	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 13 mm thick Square Edge - Speckle Model	1 Sqm	359
571	BMT-M.82	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 13 mm thick Square Edge - Textura Model	1 Sqm	397
572	BMT-M.83	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick Standard Regular Edge	1 Sqm	406
573	BMT-M.84	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick Fissura Fine Model	1 Sqm	416
574	BMT-M.85	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick Speckle Model	1 Sqm	434
575	BMT-M.86	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick Textura Model	1 Sqm	471
576	BMT-M.87	Supply and fixing of PVC false ceiling on MS/GI made skeleton framework. The frame shall be 24 X 48mm MS tube section fixed along with the wall. The entire frame work shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm \pm 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, complete, for finished item of work.	1 Sqm.	1308
577	BMT-M.88	Supply and fixing of wall panelling on the framework of wooded rippers of 24 X 24mm of required size. The entire framework shall be panelled with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm \pm 0.3mm. The panels are joined with tongue and groove system. Necessary cut-outs for electrical connections to be provided at required places complete, for finished item of work.	1 Sqm.	1239

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
578	BMT-M.89	Supply and fixing of PVC Double Skin Partition. The entire framework shall be carried out by mild steel section having overall dimensions of 24 X 48mm with a wall thickness of 1.2mm. The entire framework shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm \pm 0.3mm both sides. Glass provision/Door provision can be provided along the partition wherever required. Partitions can be made full or half as per requirement complete, for finished item of work.	Sqm.	2175
		Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be paneled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diamine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket Centre mullions are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diamine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete/masonry wall by means of self expanding screws, and complete for finished item of work.		
579	BMT-M.90	Fixed Partition: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm.	1 sqm	4477
580	BMT-M.91	Fixed Partition with Door: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm, section for shutter should be of 46x46mm and section for middle & bottom should be of size 23x130mm.	1 sqm	5105
		DRY WALL PARTITION WITH 50 MM THICK V-PANEL		
581	BMT-M.92	CEMENT BONDED PARTICLE PLANK- 8 mm- Available size-150 mm X2440mm and 200mm X 2440mm	1 Sqm	613
582	BMT-M.93	CEMENT BONDED PARTICLE PLANK- 10 mm- Available size-150 mm X2440mm and 200mm X 2440mm	1 Sqm	751
583	BMT-M.94	CEMENT BONDED PARTICLE PLANK- 12 mm- Available size-150 mm X2440mm and 200mm X 2440mm	1 Sqm	919

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
	N.	DOORS (Landing cost –including loading, cost of conveyance, unloading)		
584	BMT-N.01	Providing and fixing factory made polyvinyl chloride (PVC) Door Frame of the size 50 x 47mm with a wall thickness of 5mm, made out of extruded 10 mm rigid PVC foam sheet, mitre cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm M.S. square tube. The two vertical door profiles are to be reinforced with 19x19mm M.S. Square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long M.S. Screws through the frame by using PVC fasteners. A minimum of 4nos. of screws to be provided for each vertical member & minimum 2nos. for horizontal member etc. complete as per manufacturers specification and direction of Engineer-in-Charge for finished item of work	1 Rm	303
585	BMT-N.02	Providing and fixing 30mm thick Solid panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles, & 15mm x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat moulded PVC 'C' channel of size 30 x 50mm forming stiles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panelling of 5mm thick PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles & rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive. Complete as per direction of Engineer-in-charge, manufacturer's specification & drawing for finished item of work .	1 Sqm	2200

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
586	BMT-N.03	Providing and fixing 30mm thick BRAND FACTORY MADE BOTHSIDE PRELAM SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded "Rajshri" Prelam Pac 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 450 angle on either side forming stiles; and 5mm thick, 95mm wide Rajshri Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered in 450 on the inner side to form top and bottom rail 115mm wide Rajshri Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rail shall be provided either side of the panel. 10mm (5mmX2) thick, 20mmwide cross Pac sheet shall be provided as gap insert for top and bottom rail. Panelling of 5mm thick both side Prelam Pac sheet to be fitted in the MS. Frame welded/ sealed to the stiles & rails with 7mm(5mm+2mm) thick X 15mm wide Pac sheet beading on inner side, and joined together with solvent cement adhesive etc. an additional 5mm thick Pac strip of 20mm width is to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive etc. complete as per direction of Engineer – in-charge, manufacture specification and drawing.	1 sqm	2515
587	BMT-N.04	Providing and fixing 30mm thick BRAND FACTORY MADE SOLID SINGLE SIDE PRELAM PANEL PVC DOOR SHUTTER consisting of frame made out of MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, and 15mmX15mm for top and bottom rails. The MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded "Rajshri" single side Prelam Pac 'C' channel of size 30mmX50mm to form stiles. 5mm thick & 75mm wide single side prelam Pac sheets shall be for the top, bottom and lock rails. Panelling of 5mm thick one side Pac sheet to be fitted in the MS. Frame and sealed to the front (prelam side) stiles and rails (which should have a 5mm 45 bent portion as beading) and attached to the back(white/ivory) stiles and rails which should have a 10mm 90 bent portion as beading) using 2nos. 15mm wide X 5mm thick Pac sheet beading inside the 90 bent beading. All stiles, rails and beadings are to be joined to the panel using solvent cement etc. an additional 5mm thick Pac strip of 20mm width to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive and 10mm(5mmX2) thick, 20mm wide cross Pac sheet to be fitted as gap insert for top and bottom rail etc. complete as per direction of Engineer –in-Charge, manufacture specification and drawing.	1 sqm	2178

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
588	BMT-N.05	SINGLE SIDE PRELAM SOLID PANEL PVC DOOR FRAME (CHOUKHAT): Providing and fixing factory made Pac single side Prelam door frame of the size 50X47 mm with a wall thickness of 5mm, made out of extruded 5mm rigid Pac single side prelam sheet, meter cut at two corners and joined with 2nos. of 150mm long brackets of 1515mm MS.Square tube. The two vertical door profiles are to be reinforced with 19X19mm MS. square tube of 19guage. The door frame shall be fixed to the wall using 65/100mm long MS. Screws through the frame by using Pac fasteners. a minimum of 4nos. of screws to be provided for each vertical member and minimum 2nos. for horizontal member etc. complete as per manufacture specification and direction of Engineer-in-charge.	1 Rm	303
589	BMT-N.06	Providing and fixing 35mm thick BRAND FACTORY MADE MOULDED DOOR SHUTTER consisting of sold core single leaf flush door of 30mm thickness, lipped with 15mm (5mmX3) thick X 30mm width on one stiles and top rails and 10mm (5mmX2) thick X 30mm width on the other stiles and bottom rails. The inner panel laminated with 2mm thick termite proof, water proof and fire resistant moulded Pac sheet with 2,4,6 raised panel design in different panel and / or prelam colours on one side after routing the moulded design on flush door and 2mm prelam Pac sheet on other side using rubber adhesive on flush door and solvent cement adhesive on Pac lipping etc. complete as per direction of Engineer-in-Charge, manufacture specification and drawing	1 sqm	2636
590	BMT-N.07	MOULDED PVC DOOR – WOOD FREE: Providing and fixing 30mm thick Rajshri Brand factory made Moulded door shutter- wood free consisting of frame made out of MS. tubes 19gauge thickness and size of 25mmX25mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers. The inner panel shall consist of 25mm thick High density EPS conforming to IS 4671-1984 bounded with 2mm thick termite proof, water proof and fire resistant moulded Pac sheet with 2,4,6 raised panel design in different plain and / or prelam colours after routing to the moulded design on one side and 2mm plain and / or prelam Pac sheet on other side of the EPS. The edge of panel to be sealed with lipping of 10mm wide PVC sheet bottom (made by sticking 2 rigid foam sheet of 5mm thickness using Pac solvent cement) and stiles sides 25mm(5mmX5) thick and 30mm width Pac sheet fitted along Ms. Tube for lock provision for lock height 5mm thick Pac sheet of size 150mmX100mm fixed with upper and lower face of inner side of EPS Panel etc. Complete as per direction of Engineer – in-Charge, manufacture specification and drawing	1 sqm	2200

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
591	BMT-N.08	Providing and fixing 30mm thick BRAND FACTORY MADE WIRE MESH SOLID PVC DOOR SHUTTER consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mmX19mm for stiles and 15mm for top, lock & bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. 19mmX19mm M.S. square tubes shall be covered with 5mm thick heat moulded "Rajshri" PVC 'C' channel of size 30mm thickness, 90mm width out of which 75mm shall be flat and 15mm shall be flat and 15mm shall be bent in 900 on the inner side to from top and bottom rail land 130mm wide PVC sheet out of which 100mm shall be flat and 154mm shall be bent in 900 on both side to from lock rail, 10mm(5mmX2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panel will be of G.I.wire mesh of 24gauge to be fitted in by 'C' channel of size 35mm X10mm on the either side in the stiles. The inner side 'C' channel is fixed by 19mmX19mm MS. Tube on both sides with screws. The wire mesh in top bottom & lock rail is sealed with 15mm X 15mm tube with G.I.wire 10mm(5mmX2) thick PVC strip of 25mm width is to be stuck& nails on both side of G.I. wire mesh interior at the top, bottom & lock rail. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' channel using PVC solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawings	1 sqm	1956
592	BMT-N.09	Providing and fixing PVC door cladding to the flush doors shutters . For the new doors it shall be pasted with Fevicol SSR 998 or nailed to the old doors. complete as per direction of Engineer –in – charge, manufacturers specification and drawing - 1 mm thick	1 sqm	319
593	BMT-N.10	Providing and fixing PVC door cladding to the flush doors shutters . For the new doors it shall be pasted with Fevicol SSR 998 or nailed to the old doors. complete as per direction of Engineer –in – charge, manufacturers specification and drawing - 1.5 mm thick	1 sqm	364
594	BMT-N.11	Providing and fixing PVC door cladding to the flush doors shutters . For the new doors it shall be pasted with Fevicol SSR 998 or nailed to the old doors. complete as per direction of Engineer –in – charge, manufacturers specification and drawing - 2.0 mm thick	1 sqm	411
595	BMT-N.12	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 25 mmthick conforming to IS:2202	1 sqm	1738
596	BMT-N.13	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 30 mmthick conforming to IS:2202	1 sqm	1824
597	BMT-N.14	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 35 mmthick conforming to IS:2202	1 sqm	1991
598	BMT-N.15	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 25 mmthick conforming to IS:2202	1 sqm	991

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
599	BMT-N.16	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 30 mmthick conforming to IS:2202	1 sqm	1196
600	BMT-N.17	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 35 mmthick conforming to IS:2202	1 sqm	1355
601	BMT-N.18	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 40 mmthick conforming to IS:2202	1 sqm	1533
602	BMT-N.19	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 20 mmthick conforming to IS:2202	1 sqm	1909
603	BMT-N.20	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 25 mmthick conforming to IS:2202	1 sqm	1855
604	BMT-N.21	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 30 mmthick conforming to IS:2202	1 sqm	2054
605	BMT-N.22	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 35 mmthick conforming to IS:2202	1 sqm	2240
606	BMT-N.23	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 40 mmthick conforming to IS:2202	1 sqm	2560
607	BMT-N.24	Supply and fixing of Cement Bonded Particle Board (IS 14276) cup board frames and shutters and using 16mm Cement Bonded Particle Board duly painted both sides with one coat of primer and two coats of synthetic / enamel paint of approved shade and brand including fixing of hardware like M.S. powder coated Piano hinges of size 18mm x 18mm, brass ball catches, Aluminum tower bolts and handles , Godrej locks, Fevicol, screws and nails including cost and conveyance of all materials, labor charges, all incidental and operational charges etc., complete for finished item of work at site as per the directions of Engineer in Charge.	1 sqm	2132
608	BMT-N.25	Supply and fixing Cement Bonded Particle Board (IS 14276) single door shutter using with 16MM Cement Bonded Particle Board with all-round "U" section of size 12mmx18mmx12mm made from 0.6 mm thick galvanized, color quoted cold rolled steel profiles with necessary screws fixed at every 304.8 mm intervals. The cost inclusive of MS Nickel coated Aldrops of size 255 mm long 2 Nos., 200 mm long tower bolts 1 No., 125 mm handles 2 Nos. 300 mm long "T" hinge cost and conveyance of all materials at site and applying 1 coat primer, 1 coat of luppum and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	1870

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
609	BMT-N.26	Supply and fixing of Cement Bonded Particle Board (IS 14276) door shutters using with 16MM Cement Bonded Particle Board with all round style "U" size of 20mmx18mm x20mm made from 0.6mm thick galvanized pre-painted cold rolled steel profiles with Cement Bonded Particle Board separating two shutter with 30mmx18mmx30mm Stepped lipping with necessary screws fixed at every 1'-0" (304.8mm) intervals. MS Nickel coated 250 mm long aldrops 2 no's, MS powder coated 250mm long tower bolt 2no's , & 2no's MS powder coated 125 mm long grip handle. Including cost and conveyance of all materials at site and applying one coat of primer, 2 coats of lappum and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	2654
610	BMT-N.27	Supply and fixing of Cement Bonded Particle Board (IS 14276) LAM double door shutter using 16 MM CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS with all round "U" section size of 20mm x 18mm x 20mm made from 0.6mm thick galvanized pre-painted cold rolled steel profiles with Cement Bonded Particle Board (IS 14276) LAM separating two shutter with 30mm x 20mm x 30mm stepped lipping with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long aldrops 2no's, MS powder coated 125mm long grip handle, 2 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.	1 Sqm	2222
611	BMT-N.28	DOORS FRAMES (COLOUR COATED STEEL SECTIONS) & SHUTTER USING CEMENT BONDED PARTICLE BOARD AS PER IS 14276: Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) colour coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Bison Panel or equivalent) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Bison Panel or equivalent) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrop of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of luppum and two coats of synthetic enamel paint as per approved design for finished item of work	1 Sqm	3488
612	BMT-N.29	Supply and fixing of Cement Bonded Particle Board (IS 14276) box type cup board using Cement Bonded Particle Board for making frame of size 100mm x 35mm using two sandwiched 16MM boards,	1 Sqm	3503

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		one Cement Bonded Particle Board and one CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS with plain 35mm wood lipping. The Shutters are made of 16MM thick CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS (Pre-Laminated Cement Bonded Particle Board) of approved shade inclusive of hardware like M.S. powder coated Piano hinges of size $\frac{3}{4}$ " x $\frac{3}{4}$ " , Aluminum powder coated handles of size 4" (101.6mm), Aluminum tower bolt 4" (101.6mm) Godrej locks, screws, wood lipping and Fevicol etc., complete finish item of work.		
613	BMT-N.30	Supply and fixing of CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS door shutter made out of U sections of size 12x14x12 made from 0.6mm thick pps sections with 12MM CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS with necessary screws fixed at every 1'.0"interwells. The hardware consists of 250mm long aldop – 2 Nos.150mm Handle- 1 No , 150 mm long ms powder coated tower bolt 1 no. nickle coated. The cost is inclusive of all incidentals, labor transportation charges.	1 Sqm	2174
614	BMT-N.31	Supply and fixing of door shutters made of rigid PVC extruded hollow section(Nandi or equivalent) of 20mm X 200 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 no's with tongue and groove locking arrangements. The shutter frame is made of 30mm X 79mm with the wall thickness of 1.5mm +/- 0.15mm section mitre-cut and joined at 4 corners with 125mm X 225mm plastic brackets. The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods. Teak wood batons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed onto the door shutter.	Sqm.	1628
615	BMT-N.32	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 57mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be metri-cut/ welded. PVC DOOR FRAME	1 RM	215
616	BMT-N.33	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 46 mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be mitre cut/welded	1 RM	169
617	BMT-N.34	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 60 mm	1RM	185
618	BMT-N.35	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Double shutter 5'-0" x 7'-0" (1524 x 2133.6mm) outer frame section size of 50 x 60 mm	1 RM	185

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
619	BMT-N.36	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 60 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	210
620	BMT-N.37	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 60 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	210
621	BMT-N.38	Providing and fixing door frames fabricated from sections made of galvanized steel powder coated (base steel as per IS 513, galvanised as per IS 277 with zinc of 120 grams / square metre), the factory made section are powder coated with pure polyester powder of 50-60 microns thick with total coated thickness of 1.25 mm, size of door frame section is of 105 x 60 mm with a rebate of 38 mm to accommodate 35 mm thick door shutter, with groove to insert gasket in the frame section, frame section filled with polyurethane foam, cut to length, and joined by way of welding, each frame provided with: a) 2mm thick MS powder coated butt hinges of 100 mm long – 3 Nos. for single shutter, 6 Nos. for double shutter. b) CRCA electroplates stiffeners of 6 Nos. – 3 in each vertical. c) 40 mm x 200 mm x 1.2 mm hold fasts screwed to stiffeners – 6 Nos. with split end tail. d) Nylon Aldrop Receiver – 1 No. for single shutter frame. e) Tie Rod – 1 No	1 RM	690
622	BMT-N.39	Providing and fixing of door frames factory made, internal door frames without threshold, fabricated from pre painted cold roll formed section 100 mm x 60 mm made of galvanized (base steel as per IS-513 'D' quality galvanized as per IS-277 with Zinc of 120 Gms/sqm) steel colour coated sections with total coated thickness of 1 mm primer coated with epoxy primer of 5-7 microns thick finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns, the frame section filled with polyurethane (PU Foam) of 40 kg/Cu.m and the sections cut to length and mitre joined by means of 1.25 mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25 mm thick electroplated stiffeners of size 150 mm for fixing hold fasts and hinges with MS Powder coated fittings a) 6 Nos M.S. Z Type hold fasts made of 30 mm x 3 mm MS flat of 230 mm long, 3 Nos each size expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges /2.5 mm x 50 mm x 50 mm x 100 mm two way butt hinges (3 Nos for single leaf or 2 Nos for Double leaf/leaf) c) 12 mm dia MS tie rod at bottom with necessary size of nuts on either side.	1 RM	401
623	BMT-N.40	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) sliding doors three track - only two glass shutters sliding - 95 -Series duly manufactured using UPVC reinforced profiles of 95.50 mm x 60 mm x 2.25 mm for outer frames, 66 mm x 42 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance	1 sqm	5813

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work.		
624	BMT-N.41	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) sliding doors three track - two glass shutters sliding and one mesh shutter sliding- 95 -Series duly manufactured using UPVC reinforced profiles of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.0 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.0 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter shall be made of (48.5 mm x 30 mm)/(50 mm x 26.5 mm) x 2.0 mm uPVC profile section and fitted with nylon/polymer mesh and rollers/pulley duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 sqm	6746
625	BMT-N.42	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters sliding - 112 -Series duly manufactured using UPVC reinforced profiles of 112.0 mm x 60 mm x 2.25 mm for outer frames, 66 mm x 42 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 sqm	6425
626	BMT-N.43	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) openable doors with openable shutters duly manufactured using UPVC reinforced profiles of 60 mm x 55 mm x 2.0 mm for outer frames, 70 mm x 60 mm x 2.25 mm for mullion sections as per the need and 102 mm x 60 mm x 2.0 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant and accessories for openable door - hinges of stainless steel grade 304- 3 Nos., per shutter	1 Sqm	7646

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		handle with mazak alloy casting 1 No. per shutter, locking system suitably concealed 1 No., with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/deglaing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
627	BMT-N.44	Supplying and fixing door shutter, with shutter frame and infill panel made from PVC material conforming to IS: 10151-1982, the shutter frame made out of PVC extruded sections having overall dimension of 47 mm x 33 mm with wall thickness of 1.2mm + 0.3mm with usual process variation, the shutter frame with tapered shape to provide better grip to the infill panel end to drain out the water The Infill panel is made out of PVC Sections having Overall Dimensions of 200 mm x 20 mm with wall thickness of 1mm + 0.2mm, the shutter frames mitre cut and joined at the corner, by providing Polymeric " L " type corners to take hardware & fixtures fixed with 10-20mm counter sunk fully threaded parallel shank steel screws, all the hardware locations reinforced with special polymeric bars as per drawings, stickers showing locations of different hardware pasted on the shutter, the infill panels joined by tongue and groove method.	1 Sqm	879
628	BMT-N.45	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM)coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt – 1 No., 6" D handles – 2 Nos., 10" Aldrop – 1 No., Butt Hinges – 3 Nos, Mortise Lock of approved quality – 1 No, frames fixed to the concrete/masonry wall by means of self expanding screws complete for finished item of work for Single leaf Door	1 Sqm	9348
629	BMT-N.46	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM). coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt – 2 Nos., 6" D handles – 2 Nos.,	1 Sqm	9971

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		10" Aldrop – 1 No., Butt Hinges – 6 Nos, Mortise Lock of approved quality – 1 No, frames fixed to the concrete/masonry wall by means of self expanding screws complete for finished item of work for Double leaf Door		
630	BMT-N.47	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick doors - 30 mm thick	1 Sqm	1637
631	BMT-N.48	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick doors - 35 mm thick	1 Sqm	1790
632	BMT-N.49	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 30 mm thick	1 Sqm	1330
633	BMT-N.50	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 35 mm thick	1 Sqm	1472
634	BMT-N.51	Providing & fixing 30 mm thick solid panel PVC door shutter consisting of frame made out of 19 guage M.S tube of 19 x 19 mm for stiles, top & bottom rail, with a coat of primer of approved make. M.S. Frame covered with 5 mm thick heat moulded PVC "C" channel of size of 30 x 50 mm forming stiles, 5 mm thick 75 mm wide PVC sheet for top, lock & bottom rail on either side 20 mm wide cross PVC sheet as gap insert for top & bottom rail, panelling of 10mm(+/-)(5mm+5mm)" thick PVC sheet fitted in the M.S. frame welded /sealed to the stiles, on either side joined together with solvent cement adhesive etc., additional 5 mm thick PVC strip of 20 mm width stuck on the interior side of the C channel using solvent cement, complete as per direction of Engineer-in-charge, manufacturers specification.	1 Sqm	2694
635	BMT-N.52	Supply & Fixing SOLID STEEL DOOR door shutter made out of G I Precoated Sheet with an average wall thickness of 0.35 mm on both sides. MS Tube having dimensions of 19 x 19 mm is inserted along the hinge side of the door, core of the door shutter filled with High Density Polyurethane foam injected with the help of hydraulic injection method, four sides of the door covered with G I Precoated Sheet and the hardware locations reinforced with suitable wooden blocks as per drawing and stickers indicating location of the hardware pasted at appropriate places, etc complete	1 Sqm	1316
636	BMT-N.53	Supplying & fixing SINGLE PANEL 30 mm thick PVC DOOR, door shutters with shutter frame and Infill panel made from PVC material, the shutter frame made out of PVC extruded sections having overall dimensions of 60 mm x 30 mm with wall thickness of 1.3 mm \pm 0.3 mm, with the Infill panel made out of multi chambered seamless hollow PVC extruded panel having overall dimensions of 610 mm x 20 mm having wall thickness 1 mm \pm 0.2 mm with the shutter frame meter cut and joined at corners and all the hardware locations reinforced with special polymeric bars as per drawing	1 Sqm	2315

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		including providing special PVC bracket on hinge side, etc complete		
637	BMT-N.54	Providing & fixing internal prelaminated PVC door frame of size 100 x 45 mm with a wall thickness of 5mm, made of extruded 5 mm Prelam PVC foam sheet, mitred cut at two corners and joined with two nos. of 150mm long brackets of 15 x 15 mm MS square tube, two vertical door profiles reinforced with 40 x 20 MS Tube of 19 guage throughout the frame and the door frame fixed to the wall using 65/100mm long MS screws through the frame by using PVC fasteners with a minimum of 3 nos of screws provided for each vertical member and two nos. for horizontal, etc complete as per drawing and direction of Engineer in Charge	1 RM	535
638	BMT-N.55	Supply & Fixing of Powder Coated Mild Steel doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to single rebate profile of ize 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 – 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, cleanroom applications	1 Sqm	9902
639	BMT-N.56	Supply & Fixing of Stainless steel doors, frames & shutters made of stainless steel grade 304 of hairline finish, frame with 1.2mm thick formed to single rebate profile of ize 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, cleanroom applications.	1 Sqm	18566

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
640	BMT-N.57	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of ize 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 – 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	11758
641	BMT-N.58	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of ize 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 – 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	11140

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
642	BMT-N.59	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of ize 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 – 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	17681
643	BMT-N.60	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of ize 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 – 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	16186

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
644	BMT-N.61	Supply & Fixing of Lead Lined Clean room doors frames and shutters made of Skin pass galvanized Iron sheet (Conform to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr).with powder coating of thickness 60-65 Microns, frame of 1.60mm thick galvanized steel sheet (Conform to IS 277) formed to Single/double rebate profile of size 100mm X 58mm/ 143x58mm, door frames with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick Galvanized Steel Sheet (Conform to IS 277) formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the lead sheets extend the full width and height of the door, Lead thickness is equal to the shielding in the adjacent wall, the door frames and door shutters are coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 – 65 microns, coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, hardware with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item	1 Sqm	13329
645	BMT-N.62	Supply & Fixing of Lead Lined Stainless steel Clean room door frames and shutters made of Stainless steel grade of 304 hairline finish, frame with 1.60mm (16SWG) thick hairline finish Stainless steel grade of 304 formed to Single/double rebate profile of size 100 mm x 58mm/ 143 x 58 mm, door frames with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick hairline finish Stainless steel grade of 304 formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level. The lead sheets extend the full width and height of the door. Lead thickness is to be equal to the shielding in the adjacent wall. Hardware can be provided with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item of work	1 Sqm	21041
646	BMT-N.63	Supply and fixing of BOARD (conforming to IS 14862) door shutter with all-round style "U" lipping size 15 x 18 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with 16 mm thick V-BOARD with necessary screws fixed at 1'-0" interval 250 mm long aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost	1 Sqm	1334

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved design for finished item of work.		
647	BMT-N.64	Supply and fixing of BOARD (conforming to IS 14862) 12 mm thick door shutter of size 6'0" x 2'6" with all-round style "U" lipping size 15 x 14 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with necessary screws fixed at 1'-0" interval 250 mm long aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	1143
648	BMT-N.65	Providing and fixing frame made from 1.2 mm powder coated cold rolled steel profiles of overall section size of 60 mm x 45 mm with 21 mm rivet for shutter with necessary stiffeners hinges and screws. BOARD (IS 14862) shutter with all-round style "U" lipping of size 15 x 18 x 15 mm made from 0.8 mm thick CRCA powder coated steel profile with 16 mm thick V-board with necessary screws fixed at every 1'-0" interval 250 mm long aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance. One coat of primer, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved colour, labour charges etc.	1 Sqm	1571
649	BMT-N.66	Providing, supplying & fixing of glazed 2 Track -2 Panel Sliding Door made out of multi chambered UPVC sections with TPV gaskets having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The sliding outer frame having a overall size of 60 x 45 mm with reinforcement of 1 mm thickness, super sash with overall size of 39 x 75 mm with reinforcement of 1.5 mm thickness. Glazing bead for fixing of glass shall be of size 20 x 18mm and coextruded with gasket. Fiber Glass mesh shall be provided in mesh shutter. Window/Door shall be provided with 6 mm plain float glass, standard hardware & multi poinlocking system of Patio espagnolette. Wall thickness of frame & sash shall be 2.0 mm	1 Sqm	4812
650	BMT-N.67	A) Specification for Foamed PVC Door Frame& ABS Shutters: Providing of Factory made prelaminate FPVC (Foamed Polyvinyl Chloride) Door frame of the size 105x40mm with a wall thickness of 10mm made out of extruded rigid FPVC profile mitre joined with 6 Nos. of 50mm long screw. The door frame shall be fixed to the wall by using 80mm long screws through the frame with the help of PVC fasteners of 3 no's to be provided for each vertical member, GI stiffners of ("U" chanel of size 29x9x1mm, 150mm long) -3 no's at hinge point, Frame reinforcement of ("U" GI chanel of size 46x22x.06mm), Bottom tie rod of ("U" GI chanel size of 15x15x1mm) etc. complete as per manufacturers specification for finished item of work. Maximum door frame size : 980 x 2070	Each	14189

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		B) Providing of 35mm thick Facotry made Prelaminated ABS (Acrolonitrile Butadyne Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with prelaminate ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides. Hardware made out of steel coated butterfly hinges - 3 Nos. for each shutter and ISI make S.S round lock completes for finished item of work. Maximum shutter size of : 910 x 2030 mm		
651	BMT-N.68	Providing of 35mm thick Facotry made Prelaminated ABS (Acrolonitrile Butadyne Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with prelaminate ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides.for each shutter and ISI make S.S round lock complete for finished item of work. Maximum shutter size of : 910 x 2030 mm	Each	6422
652	BMT-N.69	Supply and fixing of Bath room / Toilet door shutter with 16mm BISON Lam (IS 14276) door shutter with all-round 'U' lipping of PPS section of size 12mm X 18mmX 12mmX0.6mm thickness with a hardware of 12mm dia X200mm long aluminum aldop – 2 nos(ISI make)2 No of 125mm long handles(ISI make) and also 3 no Of IS304 grade Patee Hinges 3mmX12mmX180mm long with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The price inclusive of all material at site	1 Sqm	2223
653	BMT-N.70	Supply and fixing of toilet door shutter with frame made of M.S. door frame of 5mmX48mmX48mm (L angel) as all-round frame the frame is coated with one coat of red oxide and two coats of enamel of approved color. For shutter and the shutter is made with 16mm Bison Lam shutter with all-round 'U' Lipping of PPS section of 12mmX18mmX12mmX0.60mm, along hardware of 200m long and 12mm dia aluminum aldop(ISI make)2 Nos, 2Nos of 125m m handle, 3 Nos of RT patte hinges IS 304gr SS 2mmX12mmX180mm long with a pole receiver of 10mmDia X 40mm by welded on 3mmX40mm SS 304, plate it works as receiver for RT Patee hinges it is welded to M.S. angle . M.S. angle will be fixed to wall of self expandable screws and caps.	1 Sqm	3183

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
654	BMT-N.71	Supply and fixing of cupboard shutter using teakwood scantling of size 50mm X50mm teakwood as outer frame and 50mm X 30 mm of size teakwood for shutter frames , 8mm thick Bison Lam as panel to each shutter consist of 2 Nos 75mm long tower bolt – 2 nos 75 mm big handle the and other shutter will have 1 no of cupboard lack , 1 No of 75 mm long handle and 75mm10mmX1mm thick SS hinges- 2 Nos for each shutter. The above frame will be fixed to the wall with screws, the rate inclusive of screws, handle, etc., complete at site of work.	1 Sqm	3666
655	BMT-N.72	PVC Door frame made out of PVC material conforming to IS:10151:1982. The door frame shall be made from extruded PVC Section in overall dimensions of 40mm x 48mm having wall thickness of 1.1mm +/-0.3mm with usual process variation corresponding to Sintex code number RUPS 414. The frame shall be Reinforced with special polymeric reinforcement as shown in drawing to take up necessary hardware. The corner joint shall be mitre cut and welded or joined by means of concealed cleats with necessary screws fittings. A tie rod to be provided at bottom. [Laminated Profile]	Per Rmt.	178
656	BMT-N.73	Door shutter with shutter frame and Infill panel made from PVC material conforming to IS: 10151:1982. The shutter frame is made out of PVC extruded sections having overall dimensions of 100mm X 30mm, with two self extruded grooves at 40mm & 50mm on front surface. The Infill panel is made out of multi chambered seamless hollow PVC extruded panel having overall dimensions of 610 mm X 20 mm. The shutter frame shall be meter cut and joined at corners by means of plastic brackets. Stickers showing locations of different hardware will be pasted on the shutter. ALL Dimensions are in MM.	1 Sqm	941
657	BMT-N.74	The shutter frame made out of PVC extrude section having overall dimensions of 59mm x 24mm with wall thickness of 1.0mm +/-0.3mm with usual process variation corresponding to the Sintex Code No.DWUF-302. The shutter frame is given tampered shape to provide better grip to the infill panel and to drain out the water.The infill panel is made out of seamless one piece multi chambered PVC extruded section having overall dimension of 610mm x 20mm with wall thickness of 1mm +/-0.2mm with usual process variation corresponding to the Sintex code No.SPUF-128. The shutter frame shall be mitre cut and joined at the corner polymeric “L’ Type corners shall be provided at the corners to take up hardwares & fixtures and shall be fixed with 19 x 8mm counter sunk-fully threaded parallel shank steel screws. All the hardware locations shall be reinforced with special polymeric Bars.	1 Sqm	1884

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
658	BMT-N.75	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) 2 Track–2 Panel Sliding Doors duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of 60 mm x 45 mm x 2.20 mm with reinforcement of 1.2 mm thickness, super sash with overall size of 39 mm x 75 mm x 2.20 mm with for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.5 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of bent handle espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	5684
659	BMT-N.76	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh shutter provision – (2-glass shutters)- 95 -Series duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of Patio/Bent espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 sqm	6394

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
660	BMT-N.77	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh shutter – (2-glass shutters and 1-mesh shutter)- 95 - Series duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Mesh shutter shall be made of (48 mm x 30 mm)/(50 mm x 26.5 mm) x 2.0 mm uPVC profile section and fitted with Vinyl Coated Fiber mesh and rollers/pulley duly fixed with TPV Gaskets weathering seal resistant Door shall be provided with standard hardware & multi point locking system of Patio/Roto espagulate and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 sqm	7066
661	BMT-N.78	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) openable doors with openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections as per the need and 102 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gaskets for sash & Glazing bead shall be co-etruded with Grey colour soft PVC. System shall be provided with 4 no's of 3D Hinges for each shutter and multipoint locking with keys.with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	8009

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
662	BMT-N.79	Supply and fixing of CEMENT BONDED PARTICLE BOARD double door shutter using 16 MM CEMENT BONDED PARTICLE BOARD LAM with all round "U" section size of 20mm x 18mm x20mm made from 0.6mm thick galvanized pre-painted cold ro steel profiles with CEMENT BONDED PARTICLE BOARD LAM separating two shutter with 30mm x lled 20mm x 30mm stepped lipping with necessary screws fixed at every 1'0" (304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long aldrops 2no's, MS powder coated 125mm long grip handle, 2 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labor charges etc., complete finished item of work.	1 Sqm	2634
	P.	WINDOWS (Landing cost –including loading, cost of conveyance, unloading)		
		Supply and fixing of pre-painted steel windows & top hung and fixed louvered ventilators made of pre - painted steel (base steel as per IS 513 of -0.58 mm thick 'D' quality, galvanized as per IS 277 with zinc of 120 GSM) primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer, section for outer frame of 46 x 52 mm section and for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading should be 18 x 25 mm and section for louvered ventilation of 33 x 56 mm Box section and the windows panelled with 5 mm thick plain float glass & 4 mm pinhead glass for ventilators with Ethyl propylene Diamine monomer Gasket (EPDM) and the sections cut to length mitre joined with corner bracket centre mullions fixed using mullion cap and with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars with 6" pitch complete for finished item of work.		
663	BMT-P.01	Windows: Single shutter 2'0 x 4'0 (609.6 x 1219.2 mm) Outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 sqm	5742
664	BMT-P.02	Windows: Double shutter 3'-0" x 4'-0" (914.4mm x 1219.2 mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 Sqm	5742

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
665	BMT-P.03	Windows: Double shutter 3'-0" x 4'-0" (914.4mm x 1219.2 mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	6074
666	BMT-P.04	Windows: Double shutter 4'-0" x 4 '-0" (1219.2x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 Sqm	5907
667	BMT-P.05	Windows: Double shutter 4'-0" x 4 '-0" (1219.2x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	5907
668	BMT-P.06	Windows: Double shutter 4'-6" x 4 '-6" (1371.6x1371.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	5411
669	BMT-P.07	Windows: Centre fixed both side openable shutter 5'-0" x 4'-0" (1524x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	5411
670	BMT-P.08	Windows: Centre fixed both side openable shutter 6'-0" x 4'-0" (1828.8x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	5411
671	BMT-P.09	Windows: Centre fixed both side openable shutter 6'-0" x 4'-6" (1828.8x1371.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	5411
672	BMT-P.10	Ventilators: Top Hung 2 '-0" x 2'-0" (609.6x609.6mm) outer frame section size of 46mm x 52 mm shutter frame section size of 46mm x 46 mm	1 Sqm	6295
673	BMT-P.11	Ventilators: Top Hung 4 '-0" x 2'-0" (1219.2x609.6mm) outer frame section size of 46 x 52 m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	6295
674	BMT-P.12	Ventilators: Top Hung 4'-0"x 3'-0" (1219.2x914.4mm) outer frame section size of 46 x 52m m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	6295
675	BMT-P.13	Ventilators: Fixed louvers 2'-0" x 2'-0" (609.6x609.6mm)(Box section) outer frame section size of 33 x 56 mm	1 Sqm	4306
676	BMT-P.14	Ventilators: Fixed louvers 4'-0" x 2'-0" (1219.2 x 609.6 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm	1 Sqm	4306

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
677	BMT-P.15	Ventilators: Fixed louvers 4'-0" x 3'-0" (1219.2 x 914.4 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm	1 Sqm	4306
		Providing and fixing of Openable Windows made of pre-painted steel (Base steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 with Zinc of 120 GSM), primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills and the sections cut to length metre joined with corner bracket, centre mullion fixed with mullion cap, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work.		
678	BMT-P.16	Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm). Outer frame section size of 48x50mm shutter frame section size of 48 x 25 mm.	1 Sqm	5245
679	BMT-P.17	Double shutter Window with vertical mullion 3'0" x 4'0" (914.4mm x 1219.2mm) outer frame section size of 48x50mm shutter frame section size of 48 x 25 mm. Mullion section size of 48x50mm.	1 Sqm	5576
680	BMT-P.18	Double shutter Window with vertical member 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame section size of 48x50mm shutter frame section size of 48 x 25 mm and mullion section should be of 48x50mm.	1 Sqm	5576
681	BMT-P.19	Centre fixed both side openable shutter window 5'0"x4'0" (1524mm x 1219.2mm). Outer frame section size of 48x50mm. Shutter frame section size of 48 x 25 mm. Mullion section size of 48x50mm. Fixed beading section size of 12x12mm.	1 Sqm	4914
682	BMT-P.20	Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x 1219.2mm). Outer frame section size of 48x50mm. Shutter frame section size of 48 x 25 mm. Mullion section size of 48x50mm. Fixed beading section size of 12 x 12mm.	1 Sqm	4914
		Providing & Fixing of Openable Windows with Fly-mesh made of pre-painted steel (Base Steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 with zinc of 150 GSM) primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm		

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm and the sections cut to length metre joined with corner bracket, centre mullions fixed with mullion cap, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for finished item of work		
683	BMT-P.21	Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm). Outer frame section size of 72x50mm shutter frame section size of 48 x 25 mm.	1 Sqm	6956
684	BMT-P.22	Double shutter Window with vertical mullion 3'0" x 4'0" (914.4mm x 1219.2mm) outer frame section size of 72x50mm shutter frame section size of 48 x 25 mm. Mullion section size of 72x50mm.	1 Sqm	7288
685	BMT-P.23	Double shutter Window with vertical member 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame section size of 72x50mm shutter frame section size of 48 x 25 mm and mullion section should be of 72x50mm.	1 Sqm	7288
686	BMT-P.24	Centre fixed both side openable shutter window 5'0"x4'0" (1524mm x 1219.2mm). Outer frame section size of 72x50mm. Shutter frame section size of 48 x 25 mm. Mullion section size of 72x50mm. Fixed beading section size of 12 x 12 mm.	1 Sqm	6625
687	BMT-P.25	Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x 1219.2mm). Outer frame section size of 72x50mm. Shutter frame section size of 48 x 25 mm. Mullion section size of 72x50mm. Fixed beading section size of 12 x 12 mm.	1 Sqm	5797
688	BMT-P.26	Providing and fixing Pre painted Steel sliding Window/Door fabricated from roll formed sections made of Galvanized steel colour coated /powder coated (Base Steel as per IS 513 'D' quality galvanized as per IS 277 with Zinc of 120 Gms./ Sq.mtr) with total coated thickness of 0.58mm. Primer Coat with epoxy primer of 5-7 microns thick, finished paint with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick. The External Section for two track Sliding Window should be of 44 x 59mm with a provision for bottom track insert profile of 10x9 mm made of aluminium. Section for Window glass shutter should be of 35x49mm , Section for Window Euro groove should be of 25x24mm made of plastic to accommodate standard accessories, and section for window lap strip should be of 21x4mm made of plastic.	1 Sqm	6166

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		Section for Door shutter should be of 35x67mm, Section for Door Euro Groove 25x31mm made of plastic to accommodate standard accessories and size of lap strip should be of 39x41mm. The Window/Door to be panelled with 5mm thick plain float glass. The gaskets are to be made of Ethyl Propylene Diamine Manomer [EPDM]. Corner Brackets for internal and external frame to be made of glass filled nylon. Touch lock to be provided for Window Shutter. Sections are to be cut to length, joined and assembled by means of corner brackets. The above frame to be fixed to Brick/Concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm screws into the caps through frames. The Grill for safety for windows to be made of 10mm thick square rod bars with 152mm pitch for complete item of work . For Door there will be no Safety Grill including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
689	BMT-P.27	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) sliding windows two track sliding duly manufactured using UPVC reinforced profiles of (62 mm x 60 mm)/(60 mm x 45 mm) x 2.0 mm for outer frames, (66 mm x 38 mm)/(58 mm x 39 mm) x 2.0 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories like locking system 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	5410
690	BMT-P.28	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) sliding windows three track - only two glass shutters sliding duly manufactured using UPVC reinforced profiles of (80 mm x 52 mm)/ (94 mm x 45 mm) x 2.0 mm for outer frames, (54 mm x 38 mm)/(39 mm x 58 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories like locking system 1 No., per set of sashes and the system is to be installed at the site using anchor	1 Sqm	5450

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
691	BMT-P.29	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) sliding windows three track - two glass shutters sliding and one mesh shutter duly manufactured using UPVC reinforced profiles of (94 mm x 45 mm)/(80 mm x 52 mm) x 2.0 mm for outer frames, (58 mm x 39 mm)/(54 mm x 38 mm) x 2.0 mm for sliding shutter frames capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter frame shall be (42 mm x 25 mm)/(52 mm x 21.5 mm) x 2 mm fitted with nylon/ polymer mesh on rollers/ pulley duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories like locking system 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	6067
692	BMT-P.30	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles of 48 mm x 60 mm x 2.0 mm for outer frames, 64 mm x 60 mm x 2.0 mm for mullion sections for two or more openable shutters and 78 mm x 60 mm x 2.0 mm for outward openable shutter frame or 70 mm x 60 mm x 2.0 mm for inward openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	5883

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
693	BMT-P.31	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles of 60 mm x 55 mm x 2.0 mm for outer frames, 70 mm x 60 mm x 2.0 mm for mullion sections for two or more openable shutters 70 mm x 60 mm x 2.0 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant and accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	6410
694	BMT-P.32	Galvanized powder coated Casement Windows with openable shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3" of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self expanding screws, complete for finished item of work - 1220 x 1372 or below size	1 Sqm	5168
695	BMT-P.33	Galvanized powder coated Casement Windows with openable shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed	1 Sqm	4630

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3" of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self expanding screws, complete for finished item of work - 1530 x 1372 or above size		
696	BMT-P.34	Galvanized powder coated Casement Windows with openable shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3" of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self expanding screws, complete for finished item of work - 1220 x 1372 or below size	1 Sqm	6493
697	BMT-P.35	Galvanized powder coated Casement Windows with openable shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3" of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade	1 Sqm	5969

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self expanding screws, complete for finished item of work - 1530 x 1372 or above size		
698	BMT-P.36	Providing & Fixing of Mesh windows made of pre-painted steel (Base Steel as per IS 513 of 0.58mm thick galvanized as per IS 277 with zinc of 120 GSM), primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer, section for outer frame of 47 x 36 mm, centre mullion of 60 x 36 mm, section mesh beading 18 x 6 mm and Fly mesh shutter section of 20 x 40 mm, the sections cut to length meter joined with corner bracket and centre mullions fixed with mullion cap, handles, latch, 2 Nos of heavy duty stainless steel pivot hinges per S.S. Mesh for fly mesh shutter (304 grade) including fixing the frames in the concrete/masonry wall by means of self expanding screws complete for finished item of work.	1 Sqm	4333
699	BMT-P.37	Providing and fixing COMPOSITE SLIDING WINDOW fabricated from roll formed sections made of Galvanized Steel colour Coated/Powder Coated (Base Steel as per IS 513 "D" quality, Galvanized as per IS 277 with Zinc of 120 grams /Sq.Mtr.) with total coated thickness of 0.58 mm, powder coated with pure Polyester Powder up to 50-60 microns thick and the section for external frame bottom of 68 x 25mm (Aluminium), External frame sides & Top of 68 x 25 mm (Aluminium), section for shutter of 59 x 23mm and Lap Strip of 30 x 7.5mm (uPVC) cut to length and mitre joined with L-bracket and 5 mm plain float Galss with Ethyl Propylene Diamine Monomer (EPDM) gasket, the corner bracket for external frame made of Aluminium 'L'-Angle, Corner Bracket for internal frame made of Polypropylene, Crescent Latch, Rollers, & EPDM Gaskets for shutters, wool pile for lap strip, Bump Stop Base & Rubber for shutter stopper including fixing to brick/concrete masonry using Nylon self-expanding caps and driving MS electroplated 80mm long screws into the caps through frames and fixing 10mm square guard bars with 6" pitch centre to centre (152.4mm) completed for finished item of work	1 Sqm	5411
		Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel (Base Steel as per IS 513, D quality, galvanized as per IS 277 with Zinc of 120 GSM), using factory made section powder coated with Pure polyester powder upto 50-60 microns thick with total coated thickness of 0.58 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks with Grill provision size of 90 mm x 50 mm and without grill provision is of 75 mm x 50 mm and the Window Shutter section of 0.58 mm x 36 mm and the outer Frame with two		

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Alumimium 1 No. per each shutter and cut to length miter joined with corner brackets including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work.		
700	BMT-P.38	a) Window with Two Sliding Shutters and without Grill Outer Frame Size 75 mm x 50 mm.	1 Sqm	5411
701	BMT-P.39	b) Window with Two Sliding Shutters and with Grill Outer Frame Size 90 mm x 50 mm have a rebate of 15mm x 5 mm to fit grill made of 10mm MS Sq Rods for horizontal bars welded at a regular pitch of 150mm to 12mm x 6 mm MS flat.	1 Sqm	5647
		Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel (Base Steel as per IS 513, D quality, galvanized as per IS 277 with Zinc of 120 GSM), using factory made section powder coated with Pure polyester powder upto 50-60 microns thick with total coated thickness of 0.58 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for three tracks with grill provision size of 105 mm x 50 mm and without grill provision is of 90 mm x 50 mm and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Alumimium 1 No. per each shutter and cut to length miter joined with corner brackets including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work.		
		Window with 3 shutters (center fixed shutter / Center sliding shutter / center Fly mesh shutter) and with Grill Window made of Outer Frame of Size 105 mm x 50 mm. Grill made of 10mm MS Square Rods for horizontal bars at a regular pitch of 150mm welded to MS flat of 12 x 6 mm.		
702	BMT-P.40	i) Center Shutter Fixed: center shutter frame made of section with size 20mm x 47mm should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.	1 Sqm	5647

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
703	BMT-P.41	ii) Center Shutter Sliding: center shutter frame made of section of size 20mm x 47mm should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick	1 Sqm	6183
704	BMT-P.42	iii) Center Fly mesh Shutter Sliding: Section for Fly mesh Shutter frame should be of size 20mm x 40mm of 0.58mm thick and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm and 29mm x 20mm of 0.58mm.	1 Sqm	6183
		Window with 3 shutters (Center fixed shutter / Center sliding shutter / center Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm.		
705	BMT-P.43	i) Center Shutter Fixed: center shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.	1 Sqm	5064
706	BMT-P.44	ii) Center Shutter Sliding: center shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.	1 Sqm	5541
707	BMT-P.45	iii) Center Fly mesh Shutter Sliding: Section for Fly mesh shutter frame should be of size 20mm x 40mm and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.	1 Sqm	5541
		Providing and fixing of Openable / Casement Windows made of pre-painted steel (Base steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc of 120 GSM), finish painted with a polyester paint of 60-65 microns thick and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills and the sections cut to length metre joined with corner bracket, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch		

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work.		
708	BMT-P.46	Single openable shutter window size of 2' 0" x 4' 0" (609.6 x 1219.2mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm thick	1 sqm	4625
709	BMT-P.47	Double openable shutter window Size of 3' 0" x 4' 0" (914.4mm x 1219.2mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm, vertical mullion section size of 80 x 60 mm	1 sqm	4917
710	BMT-P.48	Double openable shutter window size of 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame section size 80 x 45mm, shutter frame section size of 52 x 25 mm ,Vertical mullion section size of 80 x 60 mm	1 sqm	4917
711	BMT-P.49	Double Openable Shutter and Center Fixed window of size 5'0 x 4'0 (1524 x 1219.2mm)outer frame section size of 80mm x 45mm, shutter frame section size of 52 x 25mm ,Vertical mullion section size of 80 x 60 mm, beading section size of 9 x 12mm to be provided for glass holding	1 sqm	4333
712	BMT-P.50	Double Openable Shutter and Center Fixed window of size 6'0 x 4'0 (1829.6 x 1219.2mm)outer frame section size of 80mm x 45mm , shutter frame section size of 52 x 25mm ,Vertical mullion section size of 80 x 60 mm, beading section size of 9 x 12mm to be provided for glass holding	1 sqm	4333
		Note: The above rates are for normal finish, 10% extra may be allowed for Wood Grain finish		
		Providing and fixing of Openable / Casement Windows with fly mesh made of pre-painted steel (Base steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc of 120 GSM), finish painted with a polyester paint of 60-65 microns thick and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade with 144 holes per sq.inch and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections cut to length metre joined with corner bracket, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch		

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		etc., complete for finished item of work.		
713	BMT-P.51	Single openable shutter window size of 2' 0" x 4' 0" (609.6 x 1219.2mm) outer frame Double rebate section size of 100 x 45mm, Glazed and flymesh shutter profile section size of 52 x 25mm	1 sqm	6135
714	BMT-P.52	Double openable shutter window Size of 3' 0" x 4' 0" (914.4mm x 1219.2mm) outer frame Double rebate section size of 100 x 45mm, Glazed and flymesh shutter profile section size of 52 x 25mm, vertical mullion section size of 100 x 60 mm	1 sqm	6426
715	BMT-P.53	Double openable shutter window size of 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame Double rebate section size of 100 x 45mm, Glazed and flymesh shutter profile section size of 52 x 25mm, vertical mullion section size of 100 x 60 mm	1 sqm	6426
716	BMT-P.54	Double Openable Shutter and Center Fixed window of size 5'0 x 4'0 (1524 x 1219.2mm)outer frame section size of 80mm x 45mm , shutter frame section size of 52 x 25mm ,Vertical mullion section size of 100 x 60 mm , beading section size of 9 x 12mm to be provided for glass holding	1 sqm	5843
717	BMT-P.55	Double Openable Shutter and Center Fixed window of size 6'0 x4'0 (1829.6 x 1219.2mm)outer frame section size of 80mm x 45mm , shutter frame section size of 52 x 25mm ,Vertical mullion section size of 100 x 60 mm , beading section size of 9 x 12mm to be provided for glass holding	1 sqm	5843
		Note: The above rates are for normal finish, 10% extra may be allowed for Wood Grain finish		
		Providing and fixing of top hung Ventilators made of pre-painted steel (Base steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc of 120 GSM), finish painted with a polyester paint of 60-65 microns thick and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills and the sections cut to length metre joined with corner bracket, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work.		
718	BMT-P.56	Single openable ventilator shutter size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm thick	1 sqm	5550
719	BMT-P.57	Double openable ventilator shutter Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 80 x	1 sqm	5550

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		45mm,shutter frame section size of 52 x 25mm, vertical mullion section size of 80 x 60 mm		
720	BMT-P.58	Double openable fix shutter size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size of 80 x 45mm , shutter frame section size of 52 x 25 mm ,Vertical mullion section size of 80 x 60 mm	1 sqm	5550
721	BMT-P.59	Single fixed Louvers Ventilator size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 80 x 45mm	1 sqm	3797
722	BMT-P.60	Double fixed Louvers ventilator Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 80 x 45mm, vertical mullion section size of 80 x 60 mm	1 sqm	3797
723	BMT-P.61	Double fixed Louvers Ventilator size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size of 80 x 45mm , Vertical mullion section size of 80 x 60 mm	1 sqm	3797
		Note: The above rates are for normal finish, 10% extra may be allowed for Wood Grain finish		
		Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel (Base steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc of 120 GSM), finish painted with a polyester paint of 60-65 microns thick and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade with 144 holes per sq.inch and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections cut to length metre joined with corner bracket, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work.		
724	BMT-P.62	Single openable ventilator shutter window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 100 x 45mm, Glazed and flymesh shutter frame section size of 52 x 25mm thick	1 sqm	6865
725	BMT-P.63	Double openable ventilator shutter window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 100 x 45mm, Glazed and flymesh shutter frame section size of 52 x 25mm, vertical mullion section size of 100 x 60 mm	1 sqm	6865
726	BMT-P.64	Double openable fix shutter window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size 100 x 45mm , Glazed and flymesh shutter frame section size 52 x 25 mm ,Vertical mullion section size of 100 x 60 mm	1 sqm	6865
727	BMT-P.65	Single fixed Louvers Ventilator window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 100 x 45mm, flymesh shutter frame section size 52 x 25 mm	1 sqm	4625
728	BMT-P.66	Double fixed Louvers ventilator window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 100 x 45mm, flymesh shutter frame section size 52 x 25 mm,	1 sqm	4625

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		vertical mullion section size of 100 x 60 mm		
729	BMT-P.67	Double fixed Louvers Ventilator window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size 100 x 45mm , flymesh shutter frame section size 52 x 25 mm Vertical mullion section size of 100 x 60 mm	1 sqm	4625
		Note: The above rates are for normal finish, 10% extra may be allowed for Wood Grain finish		
730	BMT-P.68	Providing, supplying & fixing of Fixed Louvered Ventilator made out of multi chambered uPVC sections with TPV gaskets having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60 x 55 mm with reinforcement of 1 mm thickness and Mullion with overall size of 74 x 60 mm with reinforcement of 1 mm thickness. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware. Wall thickness of frame & Mullion shall be 2.0 mm	1 sqm	5459
731	BMT-P.69	Providing, supplying & fixing of Top hung Ventilator With Exhaust Fan Provision made out of multi chambered uPVC sections with TPV gaskets having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having a overall size of 60 x 55 mm with reinforcement of 1 mm thickness, Mullion with overall size of 74 x 60 mm with reinforcement of 1 mm thickness and Sash with overall size of 75 x 60 mm with reinforcement of 1.5 mm thickness. Glazing bead for fixing of glass shall be of size 34 x 20 mm coextruded with gasket. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware, single point locking and friction stays. Wall thickness of frame, mullion and sash shall be 2.0 mm	1 sqm	7682
732	BMT-P.70	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (62 mm x 60 mm)/(60 mm x 45 mm) x 2.20 mm for outer frames, (66 mm x 38 mm)/(58 mm x 39 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6391

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
733	BMT-P.71	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter provision – (only 2-glass shutters) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (80 mm x 52 mm)/ (94 mm x 45 mm) x 2.20 mm for outer frames, (54 mm x 38 mm)/(39 mm x 58 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work	1 Sqm	5995
744	BMT-P.72	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter – (2-glass shutters and 1-mesh shutter) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (94 mm x 45 mm)/(80 mm x 52 mm) x 2.20 mm for outer frames, (58 mm x 39 mm)/(54 mm x 38 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter frame shall be (42 mm x 25 mm)/(52 mm x 21.5 mm) x 2.0 mm fitted with Vinyl Coated Fiber mesh- on rollers/ pulley duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6674
734	BMT-P.73	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and	1 Sqm	7051

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections for two or more openable shutters 75 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window – friction hinges of stainless steel grade 304/430- 2 Nos., per sash, handle with zamak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
735	BMT-P.74	Providing, supplying & fixing of Fixed Louvered Ventilator made out of multi chambered uPVC sections with Glazing bead shall be co-extruded with Grey colour soft PVC. having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60 mm x 55 mm x 2.40 with reinforcement of 1 mm thickness and Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness. (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin). Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware. Wall thickness of frame & Mullion shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 sqm	6005
736	BMT-P.75	Providing, supplying & fixing of Top hung Ventilator With Exhaust Fan Provision made out of multi chambered uPVC sections with TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and reinforced with Galvanized Iron profiles throughout the window. The outer frame having a overall size of 60mm x 55 mm x 2.40 mm with reinforcement of 1 mm thickness, Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness and Sash with overall size of 75 mm x 60 mm x 2.40 mm with reinforcement of 1.0/1.2 mm thickness. (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin). Glazing bead for fixing of glass shall be of	1 sqm	8450

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		size 34 x 20 mm coextruded with soft PVC gasket. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware, single point locking using cockspur handle and friction stays. Wall thickness of frame, mullion and sash shall be 2.4 mm.,including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
737	BMT-P.76	Supplying and fixing of WINDOWS with Pre laminated Cement Bonded Particle boards and Pre-Painted Steel Sections fabricated from pre-painted Cold rolled formed sections made of galvanized steel color coated sections (Base steel as per IS-512 D quality, galvanized as per IS-277 with Zinc of 120 gram/sqm) with total coated thickness of 0.58mm primer coated with epoxy primer of 5-7 microns thick, finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns), sections for outer frame and centre mullion (duly filled with PU foam of 40 kg/Cum) of 60mm x 50mm, with provision for fixing glazed shutter and the section for glazed/paneled of size 48 mm x 25 mm and another section of size 60 mm x 23 mm provided for separating glazed and paneled portion, the section cut to length and miter jointed with plastic corner brackets and with corner brackets for window outer frames of 50mm x 60mm, the mullion section fixed to the frame with plastic mullion cap and stiffener plates of size 60 mm x 50 mm made of 1.25mm thick CRCA electroplated provided to fix window frames to concrete/masonry, gasket for fixing glass and 10mm both sides pre-laminated cement bonded particle board and 5 mm thick color pin headed glass provided for glazing and providing guard bars of 10 mm square rods duly welded at 150 mm pitch to MS flat section of size 18 mm and 3 mm thick, and fixed to wall by means of self expansion nylon Cap (75) and electroplated wooden screws of size 100 mm, together with aluminum powder coated fittings, A) 75mm long grip handles 1 no per shutter, B) 75 mm long tower bolts 2 nos. per shutter, C) Heavy duty SS Pivot hinges 2 no's per shutter, D) MS Powder coated telescopic stay 1 no per shutter.		
738	BMT-P.76-A	Pre Laminated Cement Bonded Particle Board WINDOWS – Single shutter 2'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm.	1 Sqm	5237
739	BMT-P.76-B	Pre Laminated Cement Bonded Particle Board WINDOWS – Double shutter 3'0" x 4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm mullion section size of 50mm x 60mm for outer frame.	1 Sqm	5287
740	BMT-P.76-C	Pre Laminated Cement Bonded Particle Board WINDOWS – Double shutter 3'0" x 3'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	5499
741	BMT-P.76-D	Pre Laminated Cement Bonded Particle Board WINDOWS – Double shutter 4'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	5086

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
742	BMT-P.77	Providing and fixing 3 Track 3 Shutter Pre painted Steel sliding Window/Door fabricated from roll formed sections made of Galvanized steel colour coated /powder coated (Base Steel as per IS 513 'D' quality galvanized as per IS 277 with Zinc of 120 Gms./ Sq.mtr) with total coated thickness of 0.58mm. Primer Coat with epoxy primer of 5-7 microns thick, finished paint with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick. The External Section for Three Track Three Sliding Shutter should be of 44 x 107mm with a provision for bottom track insert profile of 10x9 mm made of aluminium. Section for Window glass shutter should be of 35x49mm , Section for Window Euro groove should be of 25x24mm made of plastic to accommodate standard accessories, and section for window lap strip should be of 21x4mm made of plastic. Section for Mesh Shutter should be of 35x49mm. Section for Door shutter should be of 35x67mm, Section for Door Euro Groove 25x31mm made of plastic to accommodate standard accessories and size of lap strip should be of 39x41mm. The Window/Door to be panelled with 5mm thick plain float glass. The gaskets are to be made of Ethyl Propylene Diamine Manomer [EPDM]. Corner Brackets for internal and external frame to be made of glass filled nylon. Touch lock to be provided for Window Shutter. Sections are to be cut to length, joined and assembled by means of corner brackets. The above frame to be fixed to Brick/Concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm screws into the caps through frames. The Grill for safety for windows to be made of 10mm thick square rod bars with 152mm pitch for complete item of work . For Door there will be no Safety Grill including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6818
	Q.	STRUCTURAL GLAZING		
743	BMT-Q.01	Providing and fixing Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated (Base steel as per IS 513 of 'D' quality, galvanized as per IS 277 with Zinc of 120 Gm/Sqm) with total coated thickness of 0.72 mm and the glass holding section made of 304 grade stainless steel of 0.58 mm thick galvanised steel section as stiffeners inside the colour coated steel powder coated sections as per the design requirement & calculations to suit wind pressures as given in IS: 875, the primer coat with epoxy primer of 5 – 7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick and the vertical section of 50 mm x 99 mm x 0.72 mm, 33 mm x 56 mm x 0.72 mm for frame horizontal section, stiffener section of 47 mm x 97 mm x 1 mm, cover profiles sections of 20 mm x 58 mm x 0.58 mm, glass holding section of 37 mm x 37 mm & 37 mm x 18 mm including fixing 5mm thick Ocean Blue reflective glass, brackets made of CRCA powder coated/Electroplated to connect vertical to horizontal, vertical to slab, to fix verticals at top & bottom as per site requirement and gasket made of Ethyl Propylene Diamine Monomer, U.V. resistant silicon sealant including fixing in concrete/masonry wall with self-expanding cap & screws inclusive of cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges	1 Sqm	6625

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		complete for finished item of work.		
744	BMT-Q.02	Providing and fixing Top Hung shutters in Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated (Base steel as per IS 513 of 'D' quality, galvanized as per IS 277 with Zinc of 120 Gm/Sqm) with total coated thickness of 0.72 mm and the glass holding section made of 304 grade stainless steel of 0.58 mm thick, duly providing stiffeners inside the colour coated steel/powder coated sections as per the design requirement, calculations to suit wind pressures as given in IS 875 and primer coat with epoxy primer of 5-7 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick and the outer frame of 20 mm x 58 mm x 0.58 mm, shutter sections of 57 mm x 33 mm x 0.72 mm, stiffener sections of 55 mm x 31 mm x 1mm, hinges – 2 Nos for each shutter and aluminium Stays – 2 Nos. for each shutter, aluminium Handle – 1 no. for each shutter including cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges etc for finished item of work	1 Sqm	5355
745	BMT-Q.03	Supplying and fixing of curtain Glazing made of pre painted steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM) Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12- 16 microns thick and back coated with 5-7 microns thick alkyd backer using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with Ethyl Propylene diameine Monomer (EPDM) gaskets and the sections cut to length, mitre joined with corner bracket, centre mullions fixed suing mullion cap including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self expanding screws, etc., complete for finished item.- Fixed Glazing 2'-0" x 2'-0" (609.6x609.6mm) grid outer frames section size of 46 x 52 mm	1 Sqm	5466
746	BMT-Q.04	Mullion section size of 46 x 70mm Beading section size of 18 x 25 mm - Fixed Glazing 2'-0" x 3'-0" (609.6x914.4mm) grid outer frame section size of 46 x 52 mm	1 Sqm	5466
747	BMT-Q.05	Mullion section size of 46 x 70mm Beading section size of 18 x 25 mm Fixed Glazing 3'-0" x 3'-0" (914.4x914.4mm) grid outer frame section size of 46 x 52 mm	1 Sqm	4295
748	BMT-Q.06	Mullion section size of 46 x 70mm Beading section size of 18 x 25 mm Fixed Glazing 3'-0" x 4'-0" (914.4x1219.2mm) grid outer frame section size of 46 x 52 mm	1 Sqm	4295

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
749	BMT-Q.07	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) Curtain Walling systems duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.5 mm for outer frames, 60 mm x 70 mm x 2.5 mm for casement shutter frames and the mullion sections are of 60 mm x 70 mm x 2.5 mm or 60 mm x 62 mm x 2.5 mm for sliding shutter outer frames and 77 mm x 38 mm x 2.5 mm for sliding shutter frames structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant and accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation for sliding window - clipping locking system 1 No. made of aluminium including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	5844
750	BMT-Q.08	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) Fixed Glazing - 48 series duly manufactured using UPVC reinforced profiles of 60 mm x 48 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 76 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	2743
751	BMT-Q.09	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) Fixed Glazing - 56 series duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 70 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	3278
	S.	A. DISMANTLING clearing away and carefully stacking materials useful for reuse.		
752	BMT-S.01	Stone masonry in cement mortar	1 Cum	361
753	BMT-S.02	Terracing work in roofs or floors	10 Sqm	150
754	BMT-S.03	Flat stones in roof or floors including lifting	10 Sqm	130

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
755	BMT-S.04	Pan tiled or Mangalore tiled roof without roof timbers.	10 Sqm	110
756	BMT-S.05	Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	10 Sqm	130
757	BMT-S.06	Wrought and framed timber in roofs or floors	1 Cum	188
758	BMT-S.07	Old lime mortar plaster	10 Sqm	40
759	BMT-S.08	Old cement mortar plaster	10 Sqm	50
760	BMT-S.09	Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	60
761	BMT-S.10	Revetment for aprons and stacking grouted within 40 lead	1 Cum	44
762	BMT-S.11	Kadapa slabs or Shahabad stone slabs flooring on sand bed	10 Sqm	60
763	BMT-S.12	Through scraping of old plastered surface	10 Sqm	40
764	BMT-S.13	Washing of plastered surface with soap, soda and water (or with soda lime and water)	10 Sqm	12
765	BMT-S.14	clean removal of lime plaster from walls and raking out joints 20mm deep or from terraced roof and raking out joints 100 mm deep	10 Sqm	40
766	BMT-S.15	Clean removal of cement plaster from walls and raking out joint 200 mm deep	10 Sqm	50
	T.	READY MIX CONCRETE		Arrive rate as per APRSD 2009
	U.	EXPANSION JOINT FILLERS		
767	BMT-U.01	Supply of high performance expansion joint filler board conforming to M.O.S.T - 18 mm THICK	1 Sqm	656
768	BMT-U.02	Supply of high performance expansion joint filler board conforming to M.O.S.T - 20 mm THICK	1 Sqm	735
769	BMT-U.03	Supply of high performance expansion joint filler board conforming to M.O.S.T - 25 mm THICK	1 Sqm	919
770	BMT-U.04	Supply of expansion joint filler board for buildings, columns, beams and slabs 20 mm THICK	1 Sqm	263
771	BMT-U.05	Supply of expansion joint filler board for buildings, columns, beams and slabs 25 mm THICK	1 Sqm	329
772	BMT-U.06	Supply of expansion joint filler board for buildings, columns, beams and slabs 50 mm THICK	1 Sqm	656
773	BMT-U.07	Supply of back up to cold applied sealant in construction and longitudinal joint - 10 mm OD	1 RM	11
774	BMT-U.08	Supply of back up to cold applied sealant in construction and longitudinal joint - 12 mm OD	1 RM	13
775	BMT-U.09	Supply of back up to cold applied sealant in construction and longitudinal joint - 15 mm OD	1 RM	15
776	BMT-U.10	Supply of back up to cold applied sealant in construction and longitudinal joint - 20 mm OD	1 RM	21

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
777	BMT-U.11	Supply of back up to cold applied sealant in construction and longitudinal joint - 25 mm OD	1 RM	27
	V.	LABOUR CHARGES		
778	BMM-V.01	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 0.0 M to 1.0 M	1 cum	242
779	BMM-V.02	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 1.0 M to 2.0 M	1 cum	286
780	BMM-V.03	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 2.0 M to 3.0 M	1 cum	334
781	BMM-V.04	Bailing out water for earth work excavation / for concrete foundation below water level. (For building items only) Sandy soil - 0.0 M to 1.0 M	1 cum	384
782	BMM-V.05	Bailing out water for earth work excavation /for concrete foundation below water level. (For building items only) Sandy soil - 1.0 M to 2.0 M	1 cum	597
783	BMM-V.06	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) Sandy soil - 2.0 M to 3.0 M	1 cum	721
784	BMM-V.07	Labour charges for making, fabricating office furniture, racks, work-station furniture, cup-board shutters with ply-wood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	605
785	BMM-V.08	Labour charges for making, fabricating kitchen furniture, cup-boards with shutters, box cup-boards, box racks, with ply-wood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	924
786	BMM-V.09	Rounding the edges of Kadapa / Shahabad stone slabs of any thickness including polishing the same	1 Rm	105
787	BMM-V.10	Half Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	318
788	BMM-V.11	Full Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	412
789	BMM-V.12	Machine Cutting charges - for Marble/ Granite slabs up to 50 mm thick by mechanical device.	1 RM	17
790	BMM-V.13	Flat nosing to Kadapa/ Shahabad stone slabs of any thick	1 Rm	50
791	BMM-V.14	Labour charges for fabricating steel works like Window Grills, Compound Wall Grills, Iron Doors, Windows including cost of welding rods, power charges, excluding cost of fixing in	1 Kg	27

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		position		
792	BMM-V.15	Labour charges for fixing Iron Doors, Iron Windows and Window Grills in position	1 Kg	5
793	BMM-V.16	Labour charges for fabricating all heavy steel works like Trusses, Stanchions, Heavy Beams and Girders including cost of welding rods, power charges, etc excluding cost of fixing in position	1 Kg	24
794	BMM-V.17	Labour charges for fixing heavy iron grills, Trusses, Stanchions, Heavy Beams and Girders erecting in position and fixing by using chain pulley blocks, Derek pole arrangements and cranes etc., complete in position	1 Kg	21
795	BMM-V.18	Labour charges for Fabrication of stainless steel railing works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Kg	131
796	BMM-V.19	Labour charges for Fabrication of stainless steel sheet cladding works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 sqm	1756
797	BMM-V.20	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Etching works	1 Sqm	955
798	BMM-V.21	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Reverse Etching work	1 Sqm	1182
799	BMM-V.22	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Acid wash works	1 Sqm	1477
800	BMM-V.23	Labour charges for fixing Flush door shutters of any thickness to the existing door frame including fixing the fixtures to the door shutter excluding cost of shutter	1 Sqm	383
8801	BMM-V.24	Labour charges for fixing glass panes of any thickness to the existing door / window panes including fixing the beading excluding cost of beading	1 Sqm	286
802	BMM-V.25	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Fully panelled doors external or internal including frame	1 sqm	1570
803	BMM-V.26	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Glazed and panelled doors including fixing glass including frame	1 sqm	1484
804	BMM-V.27	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Framed and planked doors including frame	1 sqm	1302
805	BMM-V.28	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak	1 sqm	1018

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		wood Ledged, braced and planked doors including frame		
806	BMM-V.29	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Flush type door shutter including frame	1 sqm	785
807	BMM-V.30	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Windows glazed including outer frame and shutter frame	1 sqm	1005
808	BMM-V.31	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Windows panelled including outer frame and shutter frame	1 sqm	1515
809	BMM-V.32	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Windows ledged, braced and planked including outer frame	1 sqm	1034
810	BMM-V.33	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Windows framed and planked including outer frame and shutter frame	1 sqm	1237
811	BMM-V.34	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Ventilators glazed, fixed with double frame with wire netting including frame	1 sqm	833
812	BMM-V.35	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Swing ventilators glazed including outer frame and shutter frame	1 sqm	1053
813	BMM-V.36	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood Weld mesh doors and windows including outer frame and shutter frame	1 sqm	592
814	BMM-V.37	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Teak wood G.I or .AC sheet door & windows including outer frame and shutter frame	1 sqm	689

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
815	BMM-V.38	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Fully panelled doors external or internal including frame	1 sqm	1452
816	BMM-V.39	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Glazed and panelled doors including fixing glass including frame	1 sqm	1388
817	BMM-V.40	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Framed and planked doors including frame	1 sqm	1204
818	BMM-V.41	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Ledged, braced and planked doors including frame	1 sqm	942
819	BMM-V.42	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Flush type door shutter including frame	1 sqm	754
820	BMM-V.43	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Windows glazed including outer frame and shutter frame	1 sqm	940
821	BMM-V.44	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Windows panelled including outer frame and shutter frame	1 sqm	1401
822	BMM-V.45	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Windows ledged, braced and planked including outer frame	1 sqm	957
823	BMM-V.46	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Windows framed and planked including outer frame and shutter frame	1 sqm	1143
824	BMM-V.47	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Ventilators glazed, fixed with double frame with wire netting including frame	1 sqm	810
825	BMM-V.48	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other	1 sqm	1012

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		than teakwood Swing ventilators glazed including outer frame and shutter frame		
826	BMM-V.49	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood Weld mesh doors and windows including outer frame and shutter frame	1 sqm	563
827	BMM-V.50	Labour charges for wrought and put up including fixing in position frames of any size, shutters for doors, windows, ventilators including fixing all necessary fixtures etc. for Other than teakwood G.I or .AC sheet door & windows including outer frame and shutter frame	1 sqm	658
828	BMM-V.51	Grooves 2-3 mm	1 Rm	55
	W.	MISCELLANEOUS ITEMS		
829	BMS-W.01	Supplying Aluminium anodised Sections for Doors, partitions, windows, Ventilators (including annodization cost)	1 Kg	306
830	BMS-W.02	Sun Control film to the glazed windows partition including labour charges.	1 sqm	313
831	BMS-W.03	Aluminium Venetian Blinds horizontal 25.4 mm wide with all accessories.	1 sqm	798
832	BMS-W.04	Aluminium Venetian Blinds horizontal 20.0 mm wide with all accessories.	1 sqm	760
833	BMS-W.05	Venetian blinds Vertical blinds 100 mm wide with all accessories.	1 sqm	1290
834	BMS-W.06	Rubber Beading	1 RM	2
835	BMS-W.09	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	1 Litre	217
836	BMS-W.10	Soft Brush	Each	141
837	BMS-W.11	Wire Brush	Each	31
838	BMS-W.12	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all scaffolding and labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, if any, ACP Cladding - 3 mm thk	1 Sqm	2189
839	BMS-W.13	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all scaffolding and labour	1 Sqm	2387

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		charges etc., complete for finished item of work but excluding cost of structural steel fabrication, if any, ACP Cladding - 4 mm thk		
840	BMS-W.14	Supplying and fixing aluminium composite cladding with skin material 0.5 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all scaffolding and labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, if any, ACP Cladding - 4 mm thk	1 Sqm	2678
841	BMS-W.15	CEMENT JALI - 25 mm thick	1 sqm	191
842	BMS-W.16	CEMENT JALI - 40 mm thick	1 sqm	248
843	BMS-W.17	CEMENT JALI - 50 mm thick	1 sqm	340
844	BMS-W.18	Aluminium sheet 24 Gauge	1 Sqm	256
845	BMS-W.19	7.5mm thick Aluminium Grill (as approved by the department) 3.58 Kg/Sqm.	1 Sqm	941
846	BMS-W.20	Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1" (25.4 mm) thick	1 Sqm	839
847	BMS-W.21	Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1/2" (12.7 mm) thick	1 Sqm	481
		Supply of hot pressed compression moulded sign plates for making road signs ass per the approved dimensions of National Highway Authority Of India, complete, for finished item of work.		
848	BMS-W.22	Circular sign plate Dia 400mm.	Each.	488
849	BMS-W.23	Circular sign plate Dia 600mm.	Each.	1284
850	BMS-W.24	Circular sing plate Dia 870mm	Each.	2574
851	BMS-W.25	Triangular sign plate 600mm.	Each.	659
852	BMS-W.26	Triangular sign plate 900mm.	Each.	1489
853	BMS-W.27	Square sign plate 600mm.	Each.	1194
854	BMS-W.28	Square sign plate 1000mm.	Each.	4433
855	BMS-W.29	Supply of Polyethylene water storage tank double layer conforming to IS:12701-1996 with lid.	Litre.	7
		Design, fabrication & supply of light weight pre engineered buildings for a maximum span of 9 metres with 50 x 50 x 2.8 mm M.S hollow square tubes for columns, trusses & purlins walls with sandwich panels made up of 2 Nos 10mm thick cement bonded particle/ fibre boards with 25mm thick 12 kg/cum density expanded polystyrene in between encased in 1.25 mm thick 24x7x26 mm 'W' tracks in bottom & top and 'H' section for sides with doors, windows & ventilators, roofing with 26 gauge pre painted profiled sheets fixed with self tapping/ drilling screws, painting with enamel paint for steel items, OBD for interiors and ace for exteriors & providing		

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		base plates, templates & anchor bolts along with civil foundation designs & drawings for the finished item of work		
856	BMS-W.30	Steel Structure: - Structure is made up of 50x50X 2.8 mm/33x66x2.8mm thick hollow M.S. sections for Trusses, columns, and purlins. - Columns	1 RM	363
857	BMS-W.33	Sandwich panels: Sandwich panels of 50 mm thick with 25 mm thermocol of 12 kg / cum, fixed in between 2 Nos 10 mm cement bonded wood particle / fibre boards properly fixed together with 30 mmx30mmx30mm wood pieces along width & length wherever necessary	1 Sqm	1312
858	BMS-W.34	U' Tracks & 'H' Section:- Bottom & Top 'U' Tracks are made of 1.25 mm thick 120 GSM G.I. Sheet of size 24x51x26 mm size.	1 RM	141
859	BMS-W.35	Fabricated 'H' sections are made up of 2 Nos 1.25 mm thick C.R. Of 40 mm width for flanges and 1 Nos of 2 mm thick C.R. of 50 mm width plate for web. will be used	1 RM	204
860	BMS-W.36	Sandwich Panel joinery is made up of couplers or equivalent made from 0.6 mm G.I. roll formed section to hold 2 Nos of 10 mm board on both sides with 25 mm thermocol in between.	1RM	233
861	BMS-W.37	Window:- windows are made up of 51 x51 mm step 'U' section made from 1.25 thick MS Cold rolled Steel Sheet and Windows Shutters & Grill are made of 48x25mm mm size pre painted section with 4 mm glass complete with necessary hardware. Grills are made from 8 mm square rod at 100 mm spacing.	1 Sqm	4211
862	BMS-W.38	Door Frames :-51 X 51 Stepped ' U' section made from 1.25 mm thick C.R. section with a 32 mm rebate for 30 mm flush door and Door Shutters with 30 mm thick block board / flush doors with boiling water proof plywood complete with necessary Hard ware.	1 Sqm	3838
863	BMS-W.39	Ventilators:- Ventilators are made of 51x51 mm step 'U' section made From 1.25 mm thick C.R. sheet with fixed louvers and glass.	1 Sqm	4294
864	BMS-W.40	Painting:-1) Steel structure is to be painted with 2 coats of Grade I enamel paint.	1 Sqm	114
865	BMS-W.41	2) Exterior walls are painted with one coast of primer and 2 coats of exterior emulsion paint .	1 Sqm	102
866	BMS-W.42	3) Interiors are painted with 1+2 coat of O.B.D.	1 Sqm	85
867	BMS-W.43	Toilets: - Toilets are provided as per plan with a provision for fixing the wash basin, W.C. etc only is made with M.S. steel section secured to the walls with toilet bracket provision	Each	998

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
		excluding cost of WC/ Wash basin etc		
868	BMS-W.44	Sun shades: - Sun shades will be provided wherever necessary with 300 mm more than the width of window. 25x25 mm angle frame to cover 450 mm in the front and the sides. 10mm cement bonded particle board will be fixed on the frame work and sealed with green paste or equivalent.	Each	3364
869	BMS-W.45	Roofing: - Roofing will be provided with 0.5mm thick galvanized / pre painted G.I. profiled sheets fixed to the purlins with 14 size self drilling screws with neoprene washer. Side laps are stitched with self tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape. The sheets are provided with anti capillary groove.	1 Sqm	760
870	BMS.W.46	Supply and fixing of factory made Bathroom door frames without threshold, fabricated from pre-painted cold roll formed section 50mm x 50 mm made of galvanized (base steel as per IS – 513 'D' quality, galvanized as per IS-277 with Zinc of 120 Gms/sqm) steel colour coated sections with total coated thickness of 1 mm, primer coated with epoxy primer of 5-7 microns thick, finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns and the frame section filled with polyurethane (P.U. Foam) of 40 Kg/Cum; and the sections cut to length and mitre joined by means of 1.25mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25mm thick electroplated stiffeners of size 150mm for fixing hold fasts and hinges together with the following MS Power coated fitting (Supply and fixing) of approved make.	1 RM	407
		a) 6 Nos M.S. Z. Type hold fasts made of 30mm x 3 mm MS flat of 230mm long, 3 Nos each side expandable PVC covered screw type fasteners		
		b) 2.5 mm x 300 mm long 'T' hinges / 2.5mm x 50 mm x 100mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf /leaf)		
		c) 12 mm Dia MS tie rod at bottom with necessary size of nuts on either side.		
871	BMS-W.47	Preparing gabions with jungle wood	Each	3
872	BMS-W.48	Planting plants	Each	2
873	BMS-W.49	Pruning plants	Each	3
874	BMS-W.50	Maintaining avenues including fencing, weeding, mulching, watering etc per plant.	Each	7
875	BMS-W.51	- do - When scattered in hot weather with extra conveyance from March to June	Each	8
876	BMS-W.52	Hoisting or lowering of slab	1 cum	111

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
877	BMS-W.53	Dressing faces of granite stone (double line dressing)	1 Sqm	183
878	BMS-W.54	Dressing faces of other than granite stone(double line dressing)	1 Sqm	114
879	BMS-W.55	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	386
880	BMS-W.56	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	377
881	BMS-W.57	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	339
882	BMS-W.58	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	318
883	BMS-W.59	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.50mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	260
884	BMS-W.60	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.47mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	232
885	BMS-W.61	75 mm long screws -	1 Each	4
886	BMS-W.62	G.I scam bolts & nuts	1 Each	5
887	BMS-W.63	G.I bolts & nuts	1 Each	5
888	BMS-W.64	G.I 'J' bolts 8 mm dia	1 Each	9
889	BMS-W.65	G.I Washers	1 Each	2
890	BMS-W.66	Limpet washers (for scam & 'J' bolts)	1 Each	2
891	BMS-W.67	Bitumen washers	1 Each	2
892	BMS-W.68	White Cement	1 Kg	27
893	BMS-W.69	MS Z Hold fasts - 300 mm long of 40 x 40 x 5 mm ISA	1 Each	32
894	BMS-W.70	Rubber/ Nylon door stop bushes	1 Each	9
895	BMS-W.71	Nylon rollers for sliding glasses/ alluminium windows	1 Each	14

S.No	Item Code	Description of item	Unit	Basic Rate for SoR 2018-19
896	BMS-W.72	Powder coating or colour annodization- any section	1 RM	45
897	BMS-W.73	Continuous Piano Hinges Powder coated Mild steel as per IS-3818 : 1992 of nominal size 25 mm (B) of thickness 0.8 to 1.0 mm	1 RM	32
898	BMS-W.74	Box hinges for cup boards	1 Each	40
899	BMS-W.75	Magnetic Catchers	1 Each	14
900	BMS-W.76	Drilling holes in hard rock surfaces up to 18mm dia	1 RM	187
901	BMS-W.77	Drilling holes in hard rock above 18mm dia	1 RM	261
902	BMS-W.78	Making holes up to 18mm dia in RCC/ any stones up to 50 mm thick	1 Each	32
903	BMS-W.79	Making holes above 18mm dia in RCC/ any stones above 50 mm thick	1 Each	44
904	BMS-W.80	Pressure grouting the drilled holes with neat cement slurry or with approved epoxy bonding agent using pump	1 Each	45
905	BMS-W.81	Primax-(White cement Based Primer)	10 Kg	978
906	BMS-W.82	Super Grip-(Tile Adhesive)	20 Kg	356
	X.	MACHINERY CHARGES, HIRE CHARGES FOR CENTRING		
907	BMC-X.01	Machine charges of rubbing/ polishing floor	1 day	1749
908	BMC-X.02	Power Saw Cutter - Hand Operated - Hire charges	1 Hr	102
909	BMC-X.03	Power Drill - Hand Operated - Hire Charges	1 Hr	95
910	BMC-X.04	Grinding Mortar (Spl Grinding)	1 day	874
911	BMC-X.05	Casuarina Balli Props - 3" to 4" dia - 12'-0" Height	Each	60
912	BMC-X.06	Casuarina Balli Props - 4" to 8" dia - 20'-0" Height	Each	99
913	BMC-X.07	Wall Plate Brackets / beam bottom supports	Each	174
914	BMC-X.08	Wedge Plate fixture	Each	9
915	BMC-X.09	Runner beams of approximately 4" x 4" size	RM	347
916	BMC-X.10	Steel Plates for form works	1 sqm	1312
917	BMC-X.11	Scaffolding Pipes & Centering accessories	1 Kg	99
918	BMC-X.12	Scaffold Boards - Bamboo scaffolds - Bamboos - 8'0" long	Each	107
919	BMC-X.13	Hire charges for stationary Concrete pump conforming to IS 21573 Part-1: 2006 to deliver the fresh green concrete	1 Hr	280
920	BMC-X.14	Concrete delivery pipes conforming to IS 15947 Part I: 2012 to be connected to the pump to delivery point (150 mm Diameter) hire charges per 10 RM	1 Hr	4

- 1 All the items to be used on the works shall be of first quality & ISI marked wherever possible and as approved, workmanship shall be as approved by the Engineer-In-charge of the work.
- 2 Supply Rates for all the materials are based on market rates excluding GST.
- 3 SSR Rates for Building items are purely for the guidance of the officers in preparation of estimates vide para.113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in para.45 of APPWD code.

LEGEND:

"BMT" -X.XX,

"BMM"-X.XX,

"BMS"-X.XX,

"BMC"-X.XX

XXX-"A".XX - Denotes the Section

XXX-X."01" - Denotes the Serial Number of the Item in the corresponding Section

SI	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2018-19		Unit of Measurement
1	2	3		4		5		6
HIRE CHARGES FOR CENTERING & SCAFFOLDING								
A	FOOTINGS	Rs.	288	Rs.	631	Rs.	919	per 1 cum
B	BED BLOCKS, BANDS	Rs.	64	Rs.	325	Rs.	389	per 1 cum
C	PEDESTALS	Rs.	328	Rs.	1004	Rs.	1332	per 1 cum
D	PLINTH BEAMS	Rs.	1390	Rs.	1521	Rs.	2911	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height upto 3.66 M								
Steel scaffolding pipes, jack Props, wallers, Foot plates, brackets, steel Centering Plates,etc.,								
E	LINTELS	Rs.	1180	Rs.	1615	Rs.	2795	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	233	Rs.	248	Rs.	481	per 1 sqm
G	COLUMNS	Rs.	355	Rs.	2268	Rs.	2623	per 1 cum
H	BEAMS	Rs.	2085	Rs.	1903	Rs.	3988	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	236	Rs.	215	Rs.	451	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	243	Rs.	222	Rs.	465	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	254	Rs.	232	Rs.	486	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	858	Rs.	783	Rs.	1641	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	602	Rs.	549	Rs.	1151	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	2370	Rs.	2163	Rs.	4533	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	2404	Rs.	2193	Rs.	4597	per 1 cum
P	DOME SLABS	Rs.	3833	Rs.	3496	Rs.	7329	per 1 cum
Q	HELICAL STAIRCASES	Rs.	292	Rs.	267	Rs.	559	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	1206	Rs.	1653	Rs.	2859	

HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height upto 3.66 M Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc.,								
E	LINTELS	Rs.	790	Rs.	1251	Rs.	2041	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	156	Rs.	192	Rs.	348	per 1 sqm
G	COLUMNS	Rs.	238	Rs.	1757	Rs.	1995	per 1 cum
H	BEAMS	Rs.	1395	Rs.	1473	Rs.	2868	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	158	Rs.	167	Rs.	325	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	163	Rs.	172	Rs.	335	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	170	Rs.	180	Rs.	350	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	575	Rs.	607	Rs.	1182	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	403	Rs.	425	Rs.	828	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	1586	Rs.	1675	Rs.	3261	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	1609	Rs.	1698	Rs.	3307	per 1 cum
P	DOME SLABS	Rs.	2566	Rs.	2708	Rs.	5274	per 1 cum
Q	HELICAL STAIRCASES	Rs.	196	Rs.	207	Rs.	403	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	DELETED						

						Centring Charges for 2018-19		Unit of Measurement		
SI	NAME OF THE STRUCTURAL MEMBER			Material Hire charges		Labour charges				
1	2			3		4		5		
HIRE CHARGES FOR ACCESS SCAFFOLDING - upto 3.66 M using Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)										
A	1st - Floor			Rs.	10.32	Rs.	79.46	Rs.	89.78	per 1 sqm
B	2nd - Floor			Rs.	10.32	Rs.	113.78	Rs.	124.10	per 1 sqm
C	3rd - Floor			Rs.	10.32	Rs.	148.09	Rs.	158.41	per 1 sqm
D	4th - Floor			Rs.	10.32	Rs.	182.41	Rs.	192.73	per 1 sqm
E	5th - Floor			Rs.	10.32	Rs.	216.72	Rs.	227.04	per 1 sqm
F	6th - Floor			Rs.	10.32	Rs.	251.03	Rs.	261.35	per 1 sqm
G	7th - Floor			Rs.	10.32	Rs.	285.33	Rs.	295.65	per 1 sqm
H	8th - Floor			Rs.	10.32	Rs.	319.65	Rs.	329.97	per 1 sqm
I	9th - Floor			Rs.	10.32	Rs.	353.97	Rs.	364.29	per 1 sqm
J	10th - Floor			Rs.	10.32	Rs.	388.27	Rs.	398.59	per 1 sqm
K	11th - Floor			Rs.	10.32	Rs.	422.59	Rs.	432.91	per 1 sqm
L	12th - Floor			Rs.	10.32	Rs.	456.91	Rs.	467.23	per 1 sqm

M	13th - Floor	Rs.	10.32	Rs.	491.22	Rs.	501.54	per 1 sqm
N	14th - Floor	Rs.	10.32	Rs.	525.52	Rs.	535.84	per 1 sqm
O	15th - Floor	Rs.	10.32	Rs.	559.84	Rs.	570.16	per 1 sqm
SI	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2018-19		Unit of Measurement
1	2	3		4		5		6

HIRE CHARGES FOR ACCESS SCAFFOLDING - upto 3.66 M using Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for PLASTERING to WALLS - 1 sqm

A	1st - Floor	Rs.	1.03	Rs.	7.95	Rs.	8.98	per 1 sqm
B	2nd - Floor	Rs.	1.03	Rs.	11.38	Rs.	12.41	per 1 sqm
C	3rd - Floor	Rs.	1.03	Rs.	14.81	Rs.	15.84	per 1 sqm
D	4th - Floor	Rs.	1.03	Rs.	18.24	Rs.	19.27	per 1 sqm
E	5th - Floor	Rs.	1.03	Rs.	21.67	Rs.	22.7	per 1 sqm
F	6th - Floor	Rs.	1.03	Rs.	25.10	Rs.	26.13	per 1 sqm
G	7th - Floor	Rs.	1.03	Rs.	28.53	Rs.	29.56	per 1 sqm
H	8th - Floor	Rs.	1.03	Rs.	31.97	Rs.	33	per 1 sqm
I	9th - Floor	Rs.	1.03	Rs.	35.40	Rs.	36.43	per 1 sqm
J	10th - Floor	Rs.	1.03	Rs.	38.83	Rs.	39.86	per 1 sqm
K	11th - Floor	Rs.	1.03	Rs.	42.26	Rs.	43.29	per 1 sqm
L	12th - Floor	Rs.	1.03	Rs.	45.69	Rs.	46.72	per 1 sqm
M	13th - Floor	Rs.	1.03	Rs.	49.12	Rs.	50.15	per 1 sqm
N	14th - Floor	Rs.	1.03	Rs.	52.55	Rs.	53.58	per 1 sqm
O	15th - Floor	Rs.	1.03	Rs.	55.98	Rs.	57.01	per 1 sqm

HIRE CHARGES FOR STAGE SCAFFOLDING - upto 3.66 M using Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for CEILING PLASTERING - 1 sqm

A	1st - Floor	Rs.	2.46	Rs.	15.91	Rs.	18.37	per 1 sqm
B	2nd - Floor	Rs.	2.46	Rs.	22.57	Rs.	25.03	per 1 sqm
C	3rd - Floor	Rs.	2.46	Rs.	29.23	Rs.	31.69	per 1 sqm
D	4th - Floor	Rs.	2.46	Rs.	35.90	Rs.	38.36	per 1 sqm
E	5th - Floor	Rs.	2.46	Rs.	42.56	Rs.	45.02	per 1 sqm
F	6th - Floor	Rs.	2.46	Rs.	49.22	Rs.	51.68	per 1 sqm
G	7th - Floor	Rs.	2.46	Rs.	55.89	Rs.	58.35	per 1 sqm
H	8th - Floor	Rs.	2.46	Rs.	62.55	Rs.	65.01	per 1 sqm
I	9th - Floor	Rs.	2.46	Rs.	69.22	Rs.	71.68	per 1 sqm
J	10th - Floor	Rs.	2.46	Rs.	75.88	Rs.	78.34	per 1 sqm
K	11th - Floor	Rs.	2.46	Rs.	82.54	Rs.	85	per 1 sqm
L	12th - Floor	Rs.	2.46	Rs.	89.21	Rs.	91.67	per 1 sqm
M	13th - Floor	Rs.	2.46	Rs.	95.80	Rs.	98.26	per 1 sqm
N	14th - Floor	Rs.	2.46	Rs.	102.53	Rs.	104.99	per 1 sqm
O	15th - Floor	Rs.	2.46	Rs.	109.20	Rs.	111.66	per 1 sqm

CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for Steel scaffolding pipes, jack Props, Steel Centering Plates,etc., for unsupported height 3.66 M																
FLOOR		LINTELS	CHAJJA S - SUNSHADES	COLUMNS	BEAMS	SLAB S - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGO LA SLABS (Only Rib Beams)		ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOVE SLABS	HELICAL STAIR- CASES	Shear walls, RCC Walls, Water Tank Walls
Material Hire for any Floor	H	1180	233	355	2085	236	243	254	858	602		2370	2404	3833	292	1206
Labour Charges for 1st Floor	L	1615	248	2268	1903	215	222	232	783	549		2163	2193	3496	267	1653
Total Hire Charges (H+L)	T	2795	481	2623	3988	451	465	486	1641	1151		4533	4597	7329	559	2859
1st - Floor	L	1615	248	2268	1903	215	222	232	783	549		2163	2193	3496	267	1653
2nd - Floor	L	1777	273	2495	2093	237	244	255	861	604		2379	2412	3846	294	1818
3rd - Floor	L	1938	298	2722	2284	258	266	278	940	659		2596	2632	4195	320	1984
4th - Floor	L	2100	322	2948	2474	280	289	302	1018	714		2812	2851	4545	347	2149
5th - Floor	L	2261	347	3175	2664	301	311	325	1096	769		3028	3070	4894	374	2314
6th - Floor	L	2423	372	3402	2855	323	333	348	1175	824		3245	3290	5244	401	2480
7th - Floor	L	2584	397	3629	3045	344	355	371	1253	878		3461	3509	5594	427	2645
8th - Floor	L	2746	422	3856	3235	366	377	394	1331	933		3677	3728	5943	454	2810
9th - Floor	L	2907	446	4082	3425	387	400	418	1409	988		3893	3947	6293	481	2975
10th - Floor	L	3069	471	4309	3616	409	422	441	1488	1043		4110	4167	6642	507	3141
11th - Floor	L	3230	496	4536	3806	430	444	464	1566	1098		4326	4386	6992	534	3306
12th - Floor	L	3392	521	4763	3996	452	466	487	1644	1153		4542	4605	7342	561	3471
13th - Floor	L	3553	546	4990	4187	473	488	510	1723	1208		4759	4825	7691	587	3637
14th - Floor	L	3715	570	5216	4377	495	511	534	1801	1263		4975	5044	8041	614	3802
15th - Floor	L	3876	595	5443	4567	516	533	557	1879	1318		5191	5263	8390	641	3967
Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height above 3.66 M, may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item																

<p style="text-align: center;">CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates, Steel Centring Plates etc., for unsupported height 3.66 M</p>														
FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIRCASES
Material Hire for any Floor	H	790	156	238	1395	158	163	170	575	403	1586	1609	2566	196
Labour Charges for 1st Floor	L	1251	192	1757	1473	167	172	180	607	425	1675	1698	2708	207
Total Hire Charges (H+L)	T	2041	348	1995	2868	325	335	350	1182	828	3261	3307	5274	403
1st - Floor	L	1251	192	1757	1473	167	172	180	607	425	1675	1698	2708	207
2nd - Floor	L	1376	211	1933	1620	184	189	198	668	468	1843	1868	2979	228
3rd - Floor	L	1501	230	2108	1768	200	206	216	728	510	2010	2038	3250	248
4th - Floor	L	1626	250	2284	1915	217	224	234	789	553	2178	2207	3520	269
5th - Floor	L	1751	269	2460	2062	234	241	252	850	595	2345	2377	3791	290
6th - Floor	L	1877	288	2636	2210	251	258	270	911	638	2513	2547	4062	311
7th - Floor	L	2002	307	2811	2357	267	275	288	971	680	2680	2717	4333	331
8th - Floor	L	2127	326	2987	2504	284	292	306	1032	723	2848	2887	4604	352
9th - Floor	L	2252	346	3163	2651	301	310	324	1093	765	3015	3056	4874	373
10th - Floor	L	2377	365	3338	2799	317	327	342	1153	808	3183	3226	5145	393
11th - Floor	L	2502	384	3514	2946	334	344	360	1214	850	3350	3396	5416	414
12th - Floor	L	2627	403	3690	3093	351	361	378	1275	893	3518	3566	5687	435
13th - Floor	L	2752	422	3865	3241	367	378	396	1335	935	3685	3736	5958	455
14th - Floor	L	2877	442	4041	3388	384	396	414	1396	978	3853	3905	6228	476
15th - Floor	L	3002	461	4217	3535	401	413	432	1457	1020	4020	4075	6499	497
<p>Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height above 3.66 M, may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item</p>														

List of the Names of the Brand / Manufacturer / Supplier of Building Materials

Sl. No	SECTION	NAMES OF THE ITEMS	NAMES OF THE BRAND / MANUFACTURER / SUPPLIER
1	SECTION – A	BRICKS & BUILDING BLOCKS	Birla Aerocon, Prime, Siporex, Nucon, NCL
2	SECTION – B	NATURAL FLOORING TILES	
3	SECTION – C	WALL & FLOOR TILES	H& R Johnson Marbonite, Porselano, Endura, CERA, Somany, Hindware, Bisazza, Mrblex, Aparna vitero, Armstrong, Naveen Ceramics, Kajaria, Nitco, , Segno, Sphinx, Orient Bell, AGL, RAK Ceramics, Exxaro Tiles, Varmora Grantio, Swasthik Ceracon, Polygel.
		TILE ADHESIVES	Ardex Endura, MYK Laticrete, Polygel.
4	SECTION – D	PAVING & INTERLOCKING TILES	Super Decorative, Aditya Designer, Maha Bhina, Tricon, Phonex, Eurocon, Ultra, Sphinx
5	SECTION – E	TIMBER & ROOFING MATERIALS	Charmnar Fortune
6	SECTION – F		
7	SECTION – G	FIXTURES FOR DOOR & WINDOWS	Jyoti, Classic, Crown, Hardwyn, Birla Aerocon, Ramaply
8	SECTION – H	WATER PROOFING CHEMICALS & ADMIXTURES	Ardex Endura, Multi chem, MYK Schomburg, Walrus, Clean Tech Corrison Chemicals, Essar, Ecma, Sunanda, Bayer Crop Sciences, Bondit, Chowgule, Durox, Polygel, Ecma, Hi-Bond, Alchimica.
9	SECTION – I	GLASS	Modi, Saint Gobain, Asahi, Binani, HNG
10	SECTION – J	PAINTS & POLISHES	Asian, Berger, Nerolac, British Paints, JK Cement, Sunanda Saicoat, Indocem, ESSAR, Sheenlac, Suryacem, PMCC, Neon, GRA FLANKS (Wallz), Walrus – Synthetic Plaster - NCL Alltek, MYK Schomburg, Multichem, GRA Flanks, Indocem, Nippon, Surya Tufit, , Ardex Endura, Surfa Coats Paints, Fortune Paints, Qute, Dulux Paints, Polygel, JSW Portland slag Cements, JSW OPC Cements, Ramco Cements, Akzo Nobel.
11	SECTION – K	PARTICLE BOARDS	NCL Bison, Ramco-Hilux, Ramco-Hicem, Everest-board, Visakha-board, Rajshri, Innsula, Birla Aerocon, Aerolite, Novopan, Bhutan-board, Green ply, Rama Ply
12	SECTION – L	PLYWOOD	Kitply, Century Ply, National Ply, Crown, Bhutan Ply, Samrat, Gurjan ply, Aamoda Ply, NCL, Green ply, Rama Ply,
13	SECTION – M	CEILINGS, WALL PARTITIONS & WALL LININGS	Ramco-Hilux, Everest-board, Visakha-V board, Rajshri, Innsula, Gypsum India, Saintgobain, Armstrong, Daikin, NCL-Seccolor, NCL Bison, Dorma, NCL, Gyproc Bondit, Gyproc Gypsum Plaster, Aerolite, Rondo, NKV Gypsum plaster, Birla Aerocon
14	SECTION – N	DOORS	Anand, Raavila, Kuty, Crown, Standard, Shubhdwar, ITP, Evergreen, Rajshri, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, NCL-Wintech, Fenesta, LG, Masonite, Everest, Ambience, Aamoda, Alpine, Dorma, Nagarjuna, NCL Altek & Seccolor, Ahlada, Niki, ege profil (Deceuninck), VINAYAKA, Qute, Ecovue, Simta Astrix, Prime, Kommerling, Aparnavenster, IClean.
15	SECTION – P	WINDOWS	LG, Ahlada, NCL Altek & Seccolor, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, NCL-Wintech, Fenesta, ege profil (Deceuninck), ITP, Qute, Ecovue, Simta Astrix, Prime, Kommerling, Aparna venster.
16	SECTION – Q	STRUCTURAL GLAZING	NCL-Seccolor, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, Sintex, NCL-Wintech, Fenesta, LG, Ramaply, Kommerling
17	SECTION – U	EXPANSION JOINT FILLERS	Silseal, Silflex, Armour, Shalitek, MYK Schomburg, Polygel, Alchimica
18	SECTION – W	MISCELLANEOUS ITEMS	Sintex for PVC tanks, Centurywells for Galvalume sheets, Elixir, for PEB structures, smart coat, Aluminium Sections - Hindalco, Nalco, Jindal, Plywood - Kitply, Century Ply, National Ply, Bhutan Ply, Green Ply, Bondit, Rondo, Aludecor, Sudarshana, Unispace, JK Cement, Ardex Endura, Qute, Maa Panel, NKV gypsum.

Note: 1) All Building Materials conforming to ISI Standards shall be used in all CIVIL, Water Supply & Sanitary Fittings, Electrical and Electro-Mechanical Works.

2) Not only limiting to the Brand / Manufacturer / Supplier for Materials/Products mentioned above, Material / Product conforming to the Specification and Standards of ISI from any Brand / Manufacturer, shall also be allowed in all CIVIL, Water Supply & Sanitary Fittings, Electrical and Electro-

WATER SUPPLY & SANITARY ITEMS

WATER SUPPLY & SANITARY ITEMS

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
1	2	3	4	5
A		S.W.G. PIPES & FITTINGS		
1	BMW-A.01	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. Including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	378
2	BMW-A.02	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0") depth and refilling with watering and tamping.	1 RM	376
3	BMW-A.03	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	559
4	BMW-A.04	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0")) depth and refilling with watering and tamping.	1 RM	550
5	BMW-A.05	labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 914.4 mm (3'0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	232
6	BMW-A.06	labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 1524 mm (5'-0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	288
7	BMW-A.07	a) Supplying, laying, jointing and testing 152.4 mm CC bed 1:2:4 Prop: using 19.05mm gauge graded granite metal chips and cradling 101.6 mm SWG pipe line all round to have 76.2 mm thick cover over the sockets.	1 RM	205
8	BMW-A.08	b) - do - labour charges only	1 RM	10
9	BMW-A.09	a) Supplying, laying, jointing and testing 152.4 mm CC bed 1:2:4 Prop: using 19.05mm gauge graded granite metal chips and cradling 152.4 mm SWG pipe line all round to have 76.2 mm thick cover over the sockets.	1 RM	284
10	BMW-A.10	b) - do - labour charges only	1 RM	49
11	BMW-A.11	a) Supplying & Laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the	1 RM	79

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		channels in position		
12	BMW-A.12	b) - do - labour charges only	1 RM	37
13	BMW-A.13	a) Supplying & Laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	146
14	BMW-A.14	b) - do - labour charges only	1 RM	51
15	BMW-A.15	Supply of SWG SP-1 Pipe conforming to ISI 651- 4" dia (101.6mm)	1 RM	153
16	BMW-A.16	Supply of SWG SP-1 Pipe conforming to ISI 651- 6" dia (152.4mm)	1 RM	266
17	BMW-A.17	Supply of SWG SP-1 Pipe conforming to ISI 651-8" dia (203.2mm)	1 RM	411
18	BMW-A.18	Supply of SWG SP-1 Pipe conforming to ISI 651- 10" dia (254 mm)	1 RM	752
19	BMW-A.19	Supply of SWG SP-1 Pipe conforming to ISI 651- 12" dia (300 mm)	1 RM	1084
20	BMW-A.20	Supply of SWG SP-1 Pipe conforming to ISI 651- 14" dia (350 mm)	1 RM	1475
21	BMW-A.21	Supply of SWG SP-1 Pipe conforming to ISI 651- 16" dia (400 mm)	1 RM	1778
22	BMW-A.22	Supply of SWG SP-1 Pipe conforming to ISI 651- 18" dia (450 mm)	1 RM	2147
23	BMW-A.23	Supply of SWG SP-2 Pipe conforming to ISI 651- 4" dia (101.6mm)	1 RM	189
24	BMW-A.24	Supply of SWG SP-2 Pipe conforming to ISI 651- 6" dia (152.4mm)	1 RM	281
25	BMW-A.25	Supply of SWG SP-2 Pipe conforming to ISI 651-8" dia (203.2mm)	1 RM	507
26	BMW-A.26	Supply of SWG SP-2 Pipe conforming to ISI 651- 10" dia (254 mm)	1 RM	797
27	BMW-A.27	Supply of SWG SP-2 Pipe conforming to ISI 651- 12" dia (300 mm)	1 RM	1224
28	BMW-A.28	Supply of SWG SP-2 Pipe conforming to ISI 651- 14" dia (350 mm)	1 RM	1587
29	BMW-A.29	Supply of SWG SP-2 Pipe conforming to ISI 651- 16" dia (400 mm)	1 RM	1828
30	BMW-A.30	Supply of SWG SP-2 Pipe conforming to ISI 651- 18" dia (450 mm)	1 RM	2333
31	BMW-A.31	Supply of SWG SP-3 Pipe conforming to ISI 651- 4" dia (101.6mm)	1 RM	241
32	BMW-A.32	Supply of SWG SP-3 Pipe conforming to ISI 651- 6" dia (152.4mm)	1 RM	351
33	BMW-A.33	Supply of SWG SP-3 Pipe conforming to ISI 651-8" dia (203.2mm)	1 RM	621
34	BMW-A.34	Supply of SWG SP-3 Pipe conforming to ISI 651- 10" dia (254 mm)	1 RM	944
35	BMW-A.35	Supply of SWG SP-3 Pipe conforming to ISI 651- 12" dia (300 mm)	1 RM	1319
36	BMW-A.36	Supply of SWG SP-3 Pipe conforming to ISI 651- 14" dia (350 mm)	1 RM	1675
37	BMW-A.37	Supply of SWG SP-2 Pipe conforming to ISI 651- 16" dia (400	1 RM	1928

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		mm)		
38	BMW-A.38	Supply of SWG SP-3 Pipe conforming to ISI 651- 18" dia (450 mm)	1 RM	2623
39	BMW-A.39	Supply of SWG Bends conforming to IS standards -100 mm dia	Each	77
40	BMW-A.40	Supply of SWG Bends conforming to IS standards -150 mm dia	Each	142
41	BMW-A.41	Supply of SWG Bends conforming to IS standards -200 mm dia	Each	268
42	BMW-A.42	Supply of SWG Bendsconforming to IS standards -250 mm dia	Each	544
43	BMW-A.43	Supply of SWG Bends conforming to IS standards -300 mm dia	Each	691
44	BMW-A.44	Supply of SWG Bends conforming to IS standards -350 mm dia	Each	863
45	BMW-A.45	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 100 x 100	Each	148
46	BMW-A.46	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 100	Each	218
47	BMW-A.47	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 150	Each	238
48	BMW-A.48	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 100	Each	339
49	BMW-A.49	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 150	Each	396
50	BMW-A.50	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 200	Each	455
51	BMW-A.51	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 100	Each	534
52	BMW-A.52	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 150	Each	705
53	BMW-A.53	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 200	Each	873
54	BMW-A.54	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 250	Each	1045
55	BMW-A.55	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 100	Each	762
56	BMW-A.56	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 150	Each	976
57	BMW-A.57	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 200	Each	1189
58	BMW-A.58	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 250	Each	1404
59	BMW-A.59	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 300	Each	1618
60	BMW-A.60	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 100	Each	951
61	BMW-A.61	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 150	Each	1219
62	BMW-A.62	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 200	Each	1487

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
63	BMW-A.63	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 250	Each	1752
64	BMW-A.64	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 300	Each	2021
65	BMW-A.65	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 350	Each	2287
66	BMW-A.66	Supply of SWG Plugs conforming to IS standards for 100 mm dia	Each	28
67	BMW-A.67	Supply of SWG Plugs conforming to IS standards for 150 mm dia	Each	53
68	BMW-A.68	Supply of SWG Plugs conforming to IS standards for 200 mm dia	Each	102
69	BMW-A.69	Supply of SWG Plugs conforming to IS standards for 250 mm dia	Each	176
70	BMW-A.70	Supply of SWG Plugs conforming to IS standards for 300 mm dia	Each	279
71	BMW-A.71	Supply of SWG Plugs conforming to IS standards for 350 mm dia	Each	350
72	BMW-A.72	Supplying & fixing 150 mm x 100 mm SWG gully traps conforming to ISI 651 & 4127 with C.I Grating & Cost. Brick masonry in CM 1:6 prop. Intermediate chamber and fitted with 304.8 mm x 288.6mm (12"x9") C.I Frame and hinged cover	Each	485
73	BMW-A.73	Supply of SWG Gully Traps (Round & Square) conforming to IS standards 150 x 100 mm	Each	220
74	BMW-A.74	Labour charges for fixing and laying the SWG Junctions/ Plugs/ Bends of any dia with airtight cement joints as per standard practice	Each	30
75	BMW-A.75	Supply of SWG Saddles conforming to IS standards 150 x 100 mm		156
76	BMW-A.76	Supply of SWG Saddles conforming to IS standards 200 x 100 mm		268
77	BMW-A.77	Supply of SWG Saddles conforming to IS standards 250 x 100 mm		434
	B	MAN HOLES & INSPECTION CHAMBERS -AS PER - IS 4111 : Part 1 : 1986		
78	BMW-B.01	Constructing 904.0 mm (3'0") dia solid block masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	5697
79	BMW-B.02	Constructing 904.0 mm (3'0") dia solid block masonry	Each	8965

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.		
80	BMW-B.03	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	5518
81	BMW-B.04	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	8619
82	BMW-B.05	Constructing 914.4 mm x 457.2 mm (3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 914.4 mm x 457.2 mm (3'0"x1'6") C.I frame and cover of 40 Kg.	Each	5372
83	BMW-B.06	Constructing 457.2 mm x 457.2 mm (1'6"x1'6") brick in CM 1:6 prop. Masonry. Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 457.2 mm x 457.2 mm (1'6"x1'6") C.I frame and cover of 20 Kg.	Each	3238

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
84	BMW-B.07	a)Making drainage connection in the existing inspection including all repairs	Each	107
85	BMW-B.08	b) - do - labour charges only	Each	71
	C	C.I. PIPES & FITTINGS -AS PER - IS 1729:1979 (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
		Supplying and fixing of C.I. Single/ Double Socket soil pipes ISI marked conforming to IS:1729-1979 of reputed make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) and including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete		
86	BMW-C.01	3" dia (76.2 mm) Single Socket	1 RM	678
87	BMW-C.02	4" dia (101.6mm) Single Socket	1 RM	880
88	BMW-C.03	6" dia (152.4mm) Single Socket	1 RM	1388
89	BMW-C.04	3" dia (76.2 mm) Double Socket	1 RM	738
90	BMW-C.05	4" dia (101.6mm) Double Socket	1 RM	974
91	BMW-C.06	6" dia (152.4mm) Double Socket	1 RM	1593
92	BMW-C.07	Labour charges only forfixing of C.I. Single/ Double Socket soil pipes of any dia with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar and including fixing of M.S. clamps if necessary with required nails	1 RM	227
93	BMW-C.08	Supplying & fixing CI Plain bends Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for3" dia (76.2 mm)	Each	262
94	BMW-C.09	Supplying & fixing CI Plain bends Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for4" dia (101.6 mm)	Each	329
95	BMW-C.10	Supplying & fixing CI Plain bends Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for6" dia (152.4 mm)	Each	539
96	BMW-C.11	Supplying & fixing CI Plug (Door) bends Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (76.2 mm)	Each	322
97	BMW-C.12	Supplying & fixing CI Plug (Door) bends Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6 mm)	Each	396
98	BMW-C.13	Supplying & fixing CI Plug (Door) bends Ist quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	853
99	BMW-C.14	Labour charges only for fixing CI Plain/ Plug (Door) bends with cement caulked joints and fixing as per site requirements with standard practice	Each	72
100	BMW-C.15	Supplying and fixing of 76.2 mm (3") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked	Each	407

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		joints and fixing		
101	BMW-C.16	Supplying and fixing of 101.6 mm (4") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	628
102	BMW-C.17	Supplying and fixing of 152.4 mm (6") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1467
103	BMW-C.18	Supplying and fixing of 76.2 mm (3") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	344
104	BMW-C.19	Supplying and fixing of 101.6 mm (4") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	465
105	BMW-C.20	Supplying and fixing of 152.4 mm (6") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1096
106	BMW-C.21	Labour charges only fixing CI soil single junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	101
107	BMW-C.22	Supplying and Fixing of 76.2 mm (3") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	611
108	BMW-C.23	Supplying and Fixing of 101.6 mm (4") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	739
109	BMW-C.24	Supplying and Fixing of 152.4 mm (6") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1707
110	BMW-C.25	Supplying and Fixing of 76.2 mm (3") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	530
111	BMW-C.26	Supplying and Fixing of 101.6 mm (4") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	691
112	BMW-C.27	Supplying and Fixing of 152.4 mm (6") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1600
113	BMW-C.28	Labour charges only fixing CI soil Double junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	98
114	BMW-C.29	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing-for 76.20 mm (3") C.I. Pipe	Each	259
115	BMW-C.30	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing-for 101.6 mm (4") C.I. Pipe	Each	360
116	BMW-C.31	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing-for 152.4 mm (6") C.I. Pipe	Each	776
117	BMW-C.32	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing- for 76.20 mm (3") C.I. Pipe	Each	307
118	BMW-C.33	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and	Each	406

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		fixing- for 101.6 mm (4") C.I. Pipe		
119	BMW-C.34	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing- for 152.4 mm (6") C.I. Pipe	Each	795
120	BMW-C.35	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixingfor 76.20 mm (3") C.I. Pipe	Each	354
121	BMW-C.36	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixingfor 101.6 mm (4") C.I. Pipe	Each	456
122	BMW-C.37	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixingfor 152.4 mm (6") C.I. Pipe	Each	923
123	BMW-C.38	Labour charges only fixing CI soil Offsets with cement caulked joints and fixing as per site requirements with standard practice	Each	45
124	BMW-C.39	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practicefor nominal dia 75 mm (3") and grating size 165 mm dia of weight not less than 5.5 Kgs	Each	465
125	BMW-C.40	Supplying & fixing CI floor traps 1st quality ISI marked with C.P. Grating fixing with white cement as per site requirements with standard practicefor nominal dia 100 mm (4") and grating size 100 mm dia of weight not less than 6 Kgs	Each	568
126	BMW-C.41	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practicefor nominal dia 75 mm (3") and grating size 100 mm dia of weight not less than 4.0 Kgs	Each	288
127	BMW-C.42	Labour charges only for fixing CI Nahany/ Floor traps with C.P. Grating fixing with white cement as per site requirements with standard practice	Each	50
128	BMW-C.43	Boxing of Nahany traps in RCC floors	Each	162
129	BMW-C.44	Boxing of W.C Trap in R.C.C floors	Each	324
130	BMW-C.45	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 76.20 mm (3") C.I. Pipe	Each	153
131	BMW-C.46	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 101.6 mm (4") C.I. Pipe	Each	192
132	BMW-C.47	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 152.4 mm (6") C.I. Pipe	Each	552
	D	VITREOUS CHINAWARE - SANITARY APPLIANCES as per IS:2556 – 1974 (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
133	BMW-D.01	Supplying & Fixing Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-1981 with "P" or "S" trap: 580 mm Long	Each	934
134	BMW-D.02	Supplying & Fixing Indian pattern white glazed W.C 1st quality	Each	934

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		ISI marked conforming to IS:2556-Part-3-1981 with"P" or "S" trap: 630 mm Long		
135	BMW-D.03	Labour charges only for fixing Indian pattern W.C with"P" or "S" trap	Each	302
136	BMW-D.04	Supplying & Fixing Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-1981 with"P" or "S" trap: 580 mm x 440 mm	Each	1399
137	BMW-D.05	Supplying & Fixing Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-1981 with"P" or "S" trap: 630 mm x 450 mm	Each	1467
138	BMW-D.06	Labour charges only Fixing Orissa pan W.C with"P" or "S" trap	Each	377
139	BMW-D.07	Supplying & Fixing porcelain foot rest for squatting I.W.C. (Rectangular pair) of sizes 250 mm x 125 mm x 15 mm thick each foot rest 1st quality ISI marked conforming to IS:2556-Part-10:1974	Pair	215
140	BMW-D.08	Labour charges only for fixing porcelain foot rest for squatting I.W.C. (Rectangular pair)	Pair	69
141	BMW-D.09	Providing Brick masonry seat for Orissa pan/ Indian W.C. using 2nd class bricks as per standard practice	Each	278
142	BMW-D.10	Providing Cement Concrete Squatting plate for Orissa pan/ Indian W.C. in P.C.C. 1:2:4 as per standard practice	Each	83
143	BMW-D.11	Supplying & Fixing low down porcelain flushing tank 10 Lit Capacity with internal components	Each	2226
144	BMW-D.12	Labour charges only for fixing low down porcelain flushing tank with internal components	Each	528
145	BMW-D.13	Supplying and Fixing European Water Closet of 1st quality conforming to IS:2556-Part-2-1973 of white glazed with 'P' trap	Each	1784
146	BMW-D.14	Supplying and Fixing European Water Closet of 1st quality conforming to IS:2556-Part-2-1973 of white glazed with 'S' trap	Each	1703
147	BMW-D.15	Labour charges only for fixing European Water Closet with 'P' or 'S' trap as per standard practice	Each	264
148	BMW-D.16	Supplying and Fixing best Indian make plastic seat and lid for European water closets with rubber or plastic Buffers as per IS 2548-1996	Each	766
149	BMW-D.17	Labour charges only for fixing plastic seat and lid for European water closet	Each	76
150	BMW-D.18	Supply, Installation and commissioning approved make floor mounted Close coupled EWC suit CASCADE model 'P' or 'S' trap with dual flush porcelain cistern fixed on EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap 15 mm angle stop cock 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: White Colour	Each	8260
151	BMW-D.19	Supply, Installation and commissioning approved make floor mounted Close coupled EWC suit CASCADE model 'P' or 'S' trap with dual flush porcelain cistern fixed on EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap 15 mm angle stop cock 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Coloured - Grade - I/ Grade - II	Each	12044
152	BMW-D.20	Supply, Installation and commissioning approved make floor	Each	15326

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		mounted close coupled EWC suit CASCADE model 'P' or 'S' trap with dual flush porcelain cistern fixed on EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap 15 mm angle stop cock 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Special Colour - Grade - III		
153	BMW-D.21	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 660 x 460 mm - Single C.P. Pillar cock	Each	2355
154	BMW-D.22	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Single C.P. Pillar cock	Each	2091
155	BMW-D.23	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Double C.P. Pillar cock	Each	2551
156	BMW-D.24	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Single C.P. Pillar cock	Each	1566
157	BMW-D.25	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Double C.P. Pillar cock	Each	1894
158	BMW-D.26	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar	Each	1370

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Single C.P. Pillar cock		
159	BMW-D.27	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Double C.P. Pillar cock	Each	1764
160	BMW-D.28	Labour charges only for fixing Indian make Flat Back Wash Hand Basin with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting Pillar Taps complete with standard CI brackets including wooden block	Each	319
161	BMW-D.29	Supplying and Fixing Pedestal for Wash Hand Basin (H.S.W / Parry / Earthenware)	Each	1084
162	BMW-D.30	Labour charges only for fixing pedestal for wash hand basin	Each	136
163	BMW-D.31	Supplying & Fixing 31.75 mm C.P bottle trap (Heavy type) Parryware or equivalent	Each	390
164	BMW-D.32	Labour charges only for fixing bottle trap to the wash hand basin	Each	45
165	BMW-D.33	Supplying & Fixing white glazed flat back Bowl urinals of size 440 mm x 265 mm x 315 mm with internal flushing rim fixed with screws complete Indian make conforming to IS:2556-1995	Each	810
166	BMW-D.34	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader of overall size 95 x 95 x 57 mm conforming to IS:2556-Part 6, Sec-6-1974 fixed with screws complete Indian make : 410 x 265 x 305 mm	Each	2385
167	BMW-D.35	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader of overall size 95 x 95 x 57 mm conforming to IS:2556-Part 6, Sec-6-1974 fixed with screws complete Indian make : 590 x 375 x 390 mm	Each	2647
168	BMW-D.36	Labour charges only Fixing flat back Bowl/ Half stall urinals with fixing C.P. Spreader and screws complete	Each	127
169	BMW-D.37	Supplying & Fixing Indian make white glazed vitreous china porcelain sink conforming to IS:2556-Part-5-1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 : 600 x 400 x 250	Each	4319
170	BMW-D.38	Supplying & Fixing Indian make white glazed vitreous china porcelain sink conforming to IS:2556-Part-5-1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 : 750 x 450 x 250	Each	4844
171	BMW-D.39	Labour charges only for fixing Vitreous china porcelain sinks with waste fittings, rubber plug, chain, cantilever brackets etc.	Each	319
172	BMW-D.40	a) S & F 609.6 x 457.2 x 254 mm RCC terrazzo finished sink (or constructed at site with 50.8mm thick) brass plug and chain including CI cantilever brackets	Each	704

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
173	BMW-D.41	b) - do - labour charges only	Each	225
	E	TAPS & FAUCETS(Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
174	BMW-E.01	a) S & F 12.7 mm NP stop cock Indian make heavy duty	Each	406
175	BMW-E.02	b) - do - labour charges only	Each	29
176	BMW-E.03	a) S & F concealed stop cock 12.7 mm (1/2") Indian Make heavy duty	Each	465
177	BMW-E.04	b) - do - labour charges only	Each	43
178	BMW-E.05	a) S & F angle stop cock 12.7 mm dia first quality Indian Make heavy duty	Each	408
179	BMW-E.06	b) - do - labour charges only	Each	43
180	BMW-E.07	a) S&F 12.7 mm N.P bib tap Indian make heavy duty	Each	349
181	BMW-E.08	b) - do - labour charges only	Each	29
182	BMW-E.09	a) S&F 12.7mm N.P bib tap Indian make heavy duty	Each	223
183	BMW-E.10	b) - do - labour charges only	Each	29
184	BMW-E.11	a) S & F 31.75 mm brass plumber Union best Indian first quality	Each	61
185	BMW-E.12	b) - do - labour charges only	Each	14
186	BMW-E.13	a) S & F 12.7 mm brass stop cock Indian make heavy duty	Each	200
187	BMW-E.14	b) - do - labour charges only	Each	29
188	BMW-E.15	a) S & F 12.7 mm brass stop cock Indian make heavy duty	Each	177
189	BMW-E.16	b) - do - labour charges only	Each	29
190	BMW-E.17	a) S & F 12.7 mm brass bib cock Indian make heavy duty	Each	200
191	BMW-E.18	b) - do - labour charges only	Each	29
192	BMW-E.19	a) S & F 12.7 mm brass bib cock Indian make heavy duty	Each	177
193	BMW-E.20	b) - do - labour charges only	Each	29
194	BMW-E.21	S & F CP Long body bib cock fancy type deluxe heavy duty 12.7 mm dia Indian make	Each	547
195	BMW-E.22	S & F CP Short body bib cock fancy type deluxe heavy duty 12.7 mm dia Indian make	Each	525
196	BMW-E.23	S & F 12.7mm heavy duty dia high neck pillar cock 1st quality Indian make	Each	994
197	BMW-E.24	a) S & F 12.7 mm heavy duty NP Swan Neck Pillar cock	Each	994
198	BMW-E.25	b) - do - labour charges only	Each	41
199	BMW-E.26	a) S & F 12.7 mm heavy duty NP Sink cock	Each	992
200	BMW-E.27	b) - do - labour charges only	Each	35
201	BMW-E.28	S&F 12.7 mm dia NP pillar cock heavy duty 1st quality Indian make	Each	522
202	BMW-E.29	S&F 12.7 mm dia NP push cock 1st quality	Each	234
203	BMW-E.30	S&F 12.7 mm dia NP lift cock 1st quality	Each	205
204	BMW-E.31	a) S & F 38.1 mm C.P waste coupling Half or Full Thread 1st Quality Indian make Parryware or equivalent	Each	205
205	BMW-E.32	b) - do - labour charges only	Each	29
206	BMW-E.33	a) S & F 31.75 mm PVC bottle trap	Each	125
207	BMW-E.34	b) - do - labour charges only	Each	29
208	BMW-E.35	a) S&F 38.1 mm brass plumber union	Each	61
209	BMW-E.36	b) - do - labour charges only	Each	14
210	BMW-E.37	a) S & F 19.05 mm heavy duty NP stop cock Indian make with	Each	522

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		ISI mark		
211	BMW-E.38	b) - do - labour charges only	Each	29
	F	G.I. PIPES & FITTINGS(Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
212	BMW-F.01	S& F Glunion 12.7 mm 1st Quality	Each	38
213	BMW-F.02	S& F Glunion 19.05 mm 1st Quality	Each	46
214	BMW-F.03	S& F Glunion 25.4 mm 1st Quality	Each	70
215	BMW-F.04	S& F Glunion 31.75 mm 1st Quality	Each	86
216	BMW-F.05	S& F Glunion 38.1 mm 1st Quality	Each	103
217	BMW-F.06	S& F Glunion 50.8 mm 1st Quality	Each	128
218	BMW-F.07	S& F GI connector 25.4 mm dia	Each	76
219	BMW-F.08	S& F 12.7 mm GI 'T' A class 1st quality	Each	47
220	BMW-F.09	S& F 31.75mm dia GI bend 1st quality	Each	70
221	BMW-F.10	S & F 31.75 mm dia GI 'T' 1st Quality	Each	69
222	BMW-F.11	a) S & F 25.4 mm copper ball cock ith PVC ball Indian make ISI mark	Each	404
223	BMW-F.12	b) - do - labour charges only	Each	44
224	BMW-F.13	a) S & F 19.05 mm copper ball cock ith PVCball Indian make ISI mark	Each	331
225	BMW-F.14	b) - do - labour charges only	Each	41
226	BMW-F.15	a)S & F 12.7 mm copper ball cock ith PVC ball Indian make ISI mark	Each	218
227	BMW-F.16	b) - do - labour charges only	Each	44
228	BMW-F.17	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 25 mm NB Size	Each	1051
229	BMW-F.18	b) - do - labour charges only	Each	44
230	BMW-F.19	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 20 mm NB Size	Each	733
231	BMW-F.20	b) - do - labour charges only	Each	44
232	BMW-F.21	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 15 mm NB Size	Each	545
233	BMW-F.22	b) - do - labour charges only	Each	44
234	BMW-F.23	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 32 mm NB Size	Each	1594
235	BMW-F.24	b) - do - labour charges only	Each	39
236	BMW-F.25	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 40 mm NB Size	Each	2155
237	BMW-F.26	b) - do - labour charges only	Each	67
238	BMW-F.27	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 50 mm NB Size	Each	3155
239	BMW-F.28	b) - do - labour charges only	Each	90
240	BMW-F.29	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 65 mm NB Size	Each	4868
241	BMW-F.30	b) - do - labour charges only	Each	112
242	BMW-F.31	a)S & F Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 80 mm NB Size	Each	7211
243	BMW-F.32	b) - do - labour charges only	Each	133
244	BMW-F.33	a) Supplying & fixing Gunmetal (GM) Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB	Each	406

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		Size		
245	BMW-F.34	b) - do - labour charges only	Each	56
246	BMW-F.35	a) Supplying & fixing Gunmetal (GM) Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	919
247	BMW-F.36	b) - do - labour charges only	Each	67
248	BMW-F.37	a) Supplying & fixing Gunmetal (GM) Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	1866
249	BMW-F.38	b) - do - labour charges only	Each	112
250	BMW-F.39	a) Supplying & fixing Gunmetal (GM) Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 50 mm NB Size	Each	2548
251	BMW-F.40	b) - do - labour charges only	Each	112
252	BMW-F.41	a) Supplying & fixing Gunmetal (GM) Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	589
253	BMW-F.42	b) - do - labour charges only	Each	54
254	BMW-F.43	a) Supplying & fixing Gunmetal (GM) Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB Size	Each	383
255	BMW-F.44	b) - do - labour charges only	Each	54
256	BMW-F.45	a) Supplying & fixing Gunmetal (GM) Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	496
257	BMW-F.46	b) - do - labour charges only	Each	54
258	BMW-F.47	a) Supplying & fixing Gunmetal (GM) Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	745
259	BMW-F.48	b) - do - labour charges only	Each	54
260	BMW-F.49	a) Supplying & fixing Gunmetal (GM) Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1024
261	BMW-F.50	b) - do - labour charges only	Each	54
262	BMW-F.51	a) Supplying & fixing Gunmetal (GM) Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	1236
263	BMW-F.52	b) - do - labour charges only	Each	54
264	BMW-F.53	a) Supplying & fixing Gunmetal (GM) Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 50 mm NB Size	Each	1955
265	BMW-F.54	b) - do - labour charges only	Each	54
266	BMW-F.55	a)S & F Gunmetal (GM) Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 15 mm NB Size	Each	411
267	BMW-F.56	b) - do - labour charges only	Each	54
268	BMW-F.57	a)S & F Gunmetal (GM) Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 20 mm NB Size	Each	534
269	BMW-F.58	b) - do - labour charges only	Each	54
270	BMW-F.59	a)S & F Gunmetal (GM) Ball valve with SS Ball and SS	Each	780

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		Spindle as per IS - Class - I, Indian make heavy type - 25 mm NB Size		
271	BMW-F.60	b) - do - labour charges only	Each	54
272	BMW-F.61	a)S & F Gunmetal (GM) Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 32 mm NB Size	Each	1409
273	BMW-F.62	b) - do - labour charges only	Each	54
274	BMW-F.63	a)S & F Gunmetal (GM) Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 40 mm NB Size	Each	2111
275	BMW-F.64	b) - do - labour charges only	Each	54
276	BMW-F.65	a)S & F Gunmetal (GM) Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 50 mm NB Size	Each	3674
277	BMW-F.66	b) - do - labour charges only	Each	54
278	BMW-F.67	a) S& F 15 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	162
279	BMW-F.68	b) - do - labour charges only	1 RM	41
280	BMW-F.69	a) S& F 20 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	185
281	BMW-F.70	b) - do - labour charges only	1 RM	41
282	BMW-F.71	a) S& F 25 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	241
283	BMW-F.72	b) - do - labour charges only	1 RM	41
284	BMW-F.73	a) S& F 32 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	335
285	BMW-F.74	b) - do - labour charges only	1 RM	41
286	BMW-F.75	a) S& F 40 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	376
287	BMW-F.76	b) - do - labour charges only	1 RM	44
288	BMW-F.77	a) S& F 50 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	412
289	BMW-F.78	b) - do - labour charges only	1 RM	67
290	BMW-F.79	a) S& F 15 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	179
291	BMW-F.80	b) - do - labour charges only	1 RM	41
292	BMW-F.81	a) S& F 20 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	198
293	BMW-F.82	b) - do - labour charges only	1 RM	41
294	BMW-F.83	a) S& F 25 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239ISI mark with GI fittings including the cost of pipe & its fittings & labour charges	1 RM	258

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		complete		
295	BMW-F.84	b) - do - labour charges only	1 RM	41
296	BMW-F.85	a) S& F 32 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	359
297	BMW-F.86	b) - do - labour charges only	1 RM	41
298	BMW-F.87	a) S& F 40 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	401
299	BMW-F.88	b) - do - labour charges only	1 RM	44
300	BMW-F.89	a) S& F 50 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	436
301	BMW-F.90	b) - do - labour charges only	1 RM	67
302	BMW-F.91	S & F 65 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 with GI fittings such as elbows tees couplings, nipples, plugs including excavation for trenches and refilling the trenches complete except for GI bends union and GI connectors with checkout and socket Tata or Zenith make or equivalent.	1 RM	755
303	BMW-F.92	a)S & F 12.7 mm holder bat clamps	Each	12
304	BMW-F.93	b) - do - labour charges only	Each	8
305	BMW-F.94	a)S & F 19.05 mm holder bat clamps	Each	19
306	BMW-F.95	b) - do - labour charges only	Each	8
307	BMW-F.96	a)S & F 25.4 mm holder bat clamps	Each	25
308	BMW-F.97	b) - do - labour charges only	Each	8
309	BMW-F.98	a)S & F 38.1 mm holder bat clamps	Each	28
310	BMW-F.99	b) - do - labour charges only	Each	9
311	BMW-F.100	a) S& F 12.7x 152.0 mm NP shower rose heavy	Each	161
312	BMW-F.101	b) - do - labour charges only	Each	20
313	BMW-F.102	a) S& F 12.7x 137.0 mm NP shower rose heavy	Each	155
314	BMW-F.103	b) - do - labour charges only	Each	22
315	BMW-F.104	a) S& F 12.7x 101.6 mm NP shower rose heavy	Each	147
316	BMW-F.105	b) - do - labour charges only	Each	22
317	BMW-F.106	a) S & F 12.7 x 88.9 CP fancy shower	Each	260
318	BMW-F.107	b) - do - labour charges only	Each	22
319	BMW-F.108	a) Supplying & fixing 12.7 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	43
320	BMW-F.109	b) - do - labour charges only	Each	22
321	BMW-F.110	a) Supplying & fixing 19.05 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	61
322	BMW-F.111	b) - do - labour charges only	Each	21
323	BMW-F.112	a) Supplying & fixing 25.4 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	72
324	BMW-F.113	b) - do - labour charges only	Each	24
325	BMW-F.114	a) Taking branch water connection from the existing 25.4 mm GI pipe including cutting threading, etc, complete with fitting	Each	138

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
326	BMW-F.115	b) - do - labour charges only	Each	41
327	BMW-F.116	a) Taking branch water connection from the existing 19.05 mm GPIPE including cutting threading, etc, complete with fitting,	Each	80
328	BMW-F.117	b) - do - labour charges only	Each	36
329	BMW-F.118	a) Taking branch water connection from the existing 12.7 mm GPIPE including cutting threading, etc, complete with fitting,	Each	61
330	BMW-F.119	b) - do - labour charges only	Each	31
331	BMW-F.120	Supplying & fixing leather washers for 12.7 mm bib tap and stop cock	Each	1
332	BMW-F.121	Supplying & fixing leather washers for 19.05 mm bib tap and stop cock	Each	3
333	BMW-F.122	Supplying & Fixing 12.7 mm fibre washers	Each	3
334	BMW-F.123	Supplying & Fixing 19.05 mm fibre washers	Each	3
	G	PVC PIPES & FITTINGS(Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
335	BMW-G.01	a) Providing & Placing on Terrace(at all floor levels) polyethylene water storage tank with Double layer approved brand & manufacture with cover and suitable locking arrangement & making necessary holes for inlet & outlets and over flow pipes but without fittings & base support for tanks	1 Lit	5
336	BMW-G.02	b) - do - labour charges only	1 Lit	1
337	BMW-G.03	Supply of Plastic storage tank lid with hinges	Each	64
338	BMW-G.04	Supply & Fixing 76.2 mm dia PVC elbow 1st quality	Each	41
339	BMW-G.05	Supply & fixing 31.75mm dia PVC flexible waste pipe of 914.4 mm length of 1st quality	Each	22
340	BMW-G.06	Supply & Fixing 38.1 mm dia PVC solid waste pipe outlet	Each	77
341	BMW-G.07	Supply & fixing Fancy PVC shelf including all fittings	Each	183
342	BMW-G.08	Supply & fixing of PVC low level systemwith internal components & short bend:10 Litres capacity Single Flush	Each	1254
343	BMW-G.09	Supply & fixing of PVC low level systemwith internal components & short bend:10 litres capacity Dual Flush	Each	1472
344	BMW-G.10	Supply & fixing of PVC low level systemwith internal components & short bend:8 Litres capacity single Flush	Each	709
345	BMW-G.11	75 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	216
346	BMW-G.12	90 mm dia 3 M single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	343
347	BMW-G.13	110 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	410
348	BMW-G.14	75 mm dia 3 MDouble Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	244
349	BMW-G.15	90 mm dia 3 MDouble Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	389
350	BMW-G.16	110 mm dia 3 MDouble Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	476
351	BMW-G.17	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	152
352	BMW-G.18	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	234
353	BMW-G.19	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	291
354	BMW-G.20	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	162
355	BMW-G.21	90 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	249

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
356	BMW-G.22	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	301
357	BMW-G.23	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	112
358	BMW-G.24	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	171
359	BMW-G.25	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	206
360	BMW-G.26	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	94
361	BMW-G.27	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	138
362	BMW-G.28	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	178
363	BMW-G.29	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	57
364	BMW-G.30	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	95
365	BMW-G.31	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	119
366	BMW-G.32	160 MM dia 3 M Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	976
367	BMW-G.33	75 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	366
368	BMW-G.34	90 mm dia 3 M single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	589
369	BMW-G.35	110 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	701
370	BMW-G.36	75 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	400
371	BMW-G.37	90 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	635
372	BMW-G.38	110 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	774
373	BMW-G.39	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	240
374	BMW-G.40	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	373
375	BMW-G.41	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	444
376	BMW-G.42	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	257
377	BMW-G.43	90 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	389
378	BMW-G.44	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	480
379	BMW-G.45	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	174
380	BMW-G.46	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	269
381	BMW-G.47	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	328
382	BMW-G.48	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	150
383	BMW-G.49	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	220
384	BMW-G.50	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	266

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
385	BMW-G.51	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	97
386	BMW-G.52	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	151
387	BMW-G.53	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	192
388	BMW-G.54	160 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	1596
389	BMW-G.55	75 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	42
390	BMW-G.56	90 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	59
391	BMW-G.57	110 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	70
392	BMW-G.58	75 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	57
393	BMW-G.59	90 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	80
394	BMW-G.60	110 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	91
395	BMW-G.61	75 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	33
396	BMW-G.62	90 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	46
397	BMW-G.63	110 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	59
398	BMW-G.64	75 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	57
399	BMW-G.65	90 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	83
400	BMW-G.66	110 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	100
401	BMW-G.67	75 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	50
402	BMW-G.68	90 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	75
403	BMW-G.69	110 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	91
404	BMW-G.70	75 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	62
405	BMW-G.71	90 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	91
406	BMW-G.72	110 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	110
407	BMW-G.73	75 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	96
408	BMW-G.74	90 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	155
409	BMW-G.75	110 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	183
410	BMW-G.76	75 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	128
411	BMW-G.77	90 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	242
412	BMW-G.78	110 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	237
413	BMW-G.79	75 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	63
414	BMW-G.80	90 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	100
415	BMW-G.81	110 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	115
416	BMW-G.82	75 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	80
417	BMW-G.83	90 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	126
418	BMW-G.84	110 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	145
419	BMW-G.85	75 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	86
420	BMW-G.86	90 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	134
421	BMW-G.87	110 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	152
422	BMW-G.88	75 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	112
423	BMW-G.89	90 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	174

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
424	BMW-G.90	110 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	196
425	BMW-G.91	75 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	30
426	BMW-G.92	90 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	43
427	BMW-G.93	110 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	48
428	BMW-G.94	90 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	50
429	BMW-G.95	110 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	48
430	BMW-G.96	90 x 110mm dia - Reducer - UPVC/SWR Pipe fittings	Each	67
431	BMW-G.97	63 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	8
432	BMW-G.98	75 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	12
433	BMW-G.99	90 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	14
434	BMW-G.100	110 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	16
435	BMW-G.101	40 mm dia - Pipe Clip - UPVC/SWR Pipe fittings - Pipe Clip - UPVC/SWR Pipe fittings	Each	9
436	BMW-G.102	50 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	12
437	BMW-G.103	63 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	12
438	BMW-G.104	75 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	13
439	BMW-G.105	90 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	14
440	BMW-G.106	110 mm - Pipe Clip - UPVC/SWR Pipe fittings	Each	15
441	BMW-G.107	160 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	30
442	BMW-G.108	P' Trap (Small without Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	159
443	BMW-G.109	P' Trap (Small with Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	176
444	BMW-G.110	P' Trap (Big with Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	201
445	BMW-G.111	P' Trap (Big without Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	185
446	BMW-G.112	Floor Trap (Bell Mouth) 110 mm - UPVC/SWR Pipe fittings	Each	192
447	BMW-G.113	Bell Mouth Trap 7 " (177.8 mm) - UPVC/SWR Pipe fittings	Each	279
448	BMW-G.114	4" (101.6 mm) Nahany Trap (Without Jali with inlet)UPVC/SWR Pipe fittings	Each	83
449	BMW-G.115	3" (76.2 mm) Nahany Trap (without Jali without inlet)UPVC/SWR Pipe fittings	Each	74
450	BMW-G.116	4" (101.6 mm) Nahany Trap (without inlet with out Jali)UPVC/SWR Pipe fittings	Each	83
451	BMW-G.117	Mini Trap - UPVC/SWR Pipe fittings	Each	45
452	BMW-G.118	3" (76.2 mm) Nahany Trap with Jali - UPVC/SWR Pipe fittings	Each	86
453	BMW-G.119	4" (101.6 mm) multi floor trap with Jali- UPVC/SWR Pipe fittings	Each	122
454	BMW-G.120	4" (101.6) multi floor trap with out Jalli- UPVC/SWR Pipe fittings	Each	95
455	BMW-G.121	Round Jali - UPVC/SWR Pipe fittings	Each	20
456	BMW-G.122	Square tile & Jalli - UPVC/SWR Pipe fittings	Each	33
457	BMW-G.123	Pipe connector(with LIP ring) - UPVC/SWR Pipe fittings	Each	122
458	BMW-G.124	Pipe connector(with out LIP ring) - UPVC/SWR Pipe fittings	Each	99
459	BMW-G.125	4" (101.6 mm) Floor Trap - UPVC/SWR Pipe fittings	Each	117
460	BMW-G.126	5" (127.mm) floor Trap - UPVC/SWR Pipe fittings	Each	124
461	BMW-G.127	75 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	31

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
462	BMW-G.128	90 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	54
463	BMW-G.129	110 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	45
464	BMW-G.130	75 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	30
465	BMW-G.131	90 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	52
466	BMW-G.132	110 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	54
467	BMW-G.133	75 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	7
468	BMW-G.134	90 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	8
469	BMW-G.135	110 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	9
470	BMW-G.136	75 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	8
471	BMW-G.137	90 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	9
472	BMW-G.138	110 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	12
473	BMW-G.139	LIP ring 110 mm - UPVC/SWR Pipe fittings	Each	58
474	BMW-G.140	Rubber Lubricant - 100 Grams	Each	22
475	BMW-G.141	Rubber Lubricant- 250Grams	Each	43
476	BMW-G.142	Rubber Lubricant - 500 Grams	Each	78
477	BMW-G.143	Rubber Lubricant - 1000 Grams	Each	185
478	BMW-G.144	P' Trap with lip UPVC/SWR Pipe fittings	Each	252
479	BMW-G.145	50 ml - Solvent Cement	Each	13
480	BMW-G.146	100 ml - Solvent Cement	Each	21
481	BMW-G.147	250 ml - Solvent Cement	Each	50
482	BMW-G.148	500 ml - Solvent Cement	Each	98
483	BMW-G.149	1000 ml - Solvent Cement	Each	192
484	BMW-G.150	110mm x 90 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	76
485	BMW-G.151	160 mm x 110 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	190
486	BMW-G.152	Labour charges for laying, fixing and commissioning the PVC pipes including couplers/ bends/ tees etc any diameter including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc with solvent jointing as per standard practice	1 RM	70
	H	CENTRIFUGAL CAST IRON PIPES & FITTINGS AS PER IS: 3989 - 1984		
487	BMW-H.01	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M)	Each	1270
488	BMW-H.02	100 mm dia CI (spun) soils Waste & Ventilating pipe (3 M)	Each	1691
489	BMW-H.03	150 mm dia CI (spun) soils Waste & Ventilating pipe (3 M)	Each	3099
490	BMW-H.04	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M) Double socket	Each	1410
491	BMW-H.05	100 mm dia CI (spun) soils Waste & Ventilating pipe (3 M) Double socket	Each	1902
492	BMW-H.06	75 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	1142
493	BMW-H.07	100 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	1526
494	BMW-H.08	75 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1022
495	BMW-H.09	100 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1358
496	BMW-H.10	75 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	831
497	BMW-H.11	100 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1084
498	BMW-H.12	75 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	874
499	BMW-H.13	100 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1084

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
500	BMW-H.14	75 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	303
501	BMW-H.15	100 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	348
502	BMW-H.16	75 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	434
503	BMW-H.17	100 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	499
504	BMW-H.18	150 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	952
505	BMW-H.19	75 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	599
506	BMW-H.20	100 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	661
507	BMW-H.21	150 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	1193
508	BMW-H.22	75 mm dia Cut pipes (pieces) 3 feet (914.4 mm) CI (Spun) fittings	Each	918
509	BMW-H.23	100 mm dia Cut pipes (pieces) 3 feet (914.4 mm) CI (Spun) fittings	Each	1239
510	BMW-H.24	75 mm dia Cut pipes (pieces) 4 feet (1219.2 mm) CI (Spun) fittings	Each	1010
511	BMW-H.25	100 mm dia Cut pipes (pieces) 4 feet (1219.2 mm) CI (Spun) fittings	Each	1511
512	BMW-H.26	75 mm dia Plain Bend - CI (Spun) fittings	Each	312
513	BMW-H.27	100 mm dia Plain Bend - CI (Spun) fittings	Each	367
514	BMW-H.28	150 mm dia Plain Bend - CI (Spun) fittings	Each	874
515	BMW-H.29	75 mm dia Door Bend - CI (Spun) fittings	Each	323
516	BMW-H.30	100 mm dia Door Bend - CI (Spun) fittings	Each	418
517	BMW-H.31	150 mm dia Door Bend - CI (Spun) fittings	Each	957
518	BMW-H.32	75 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	312
519	BMW-H.33	100 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	367
520	BMW-H.34	150 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	874
521	BMW-H.35	75 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	323
522	BMW-H.36	100 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	418
523	BMW-H.37	150 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	957
524	BMW-H.38	Horn Bend Plain 101.6 x 50.8 mm (4" x 2") 100 mm dia - CI (Spun) fittings	Each	635
525	BMW-H.39	Horn Bend door 101.6 x 50.8 mm (4" x 2") 100 mm dia - CI (Spun) fittings	Each	741
526	BMW-H.40	75 mm dia Heel Rest Bend - CI (Spun) fittings	Each	332
527	BMW-H.41	100 mm dia Heel Rest Bend - CI (Spun) fittings	Each	424
528	BMW-H.42	150 mm dia Heel Rest Bend - CI (Spun) fittings	Each	902
529	BMW-H.43	75 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	418
530	BMW-H.44	100 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	564
531	BMW-H.45	150 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	1164
532	BMW-H.46	75 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	493
533	BMW-H.47	100 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	654
534	BMW-H.48	150 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	1229

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
535	BMW-H.49	75 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	493
536	BMW-H.50	100 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	654
537	BMW-H.51	150 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	1443
538	BMW-H.52	75 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	540
539	BMW-H.53	100 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	722
540	BMW-H.54	150 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	1554
541	BMW-H.55	75 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	571
542	BMW-H.56	100 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	769
543	BMW-H.57	75 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	637
544	BMW-H.58	100 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	802
545	BMW-H.59	75 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	637
546	BMW-H.60	100 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	802
547	BMW-H.61	75 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	671
548	BMW-H.62	100 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	870
549	BMW-H.63	75 mm dia Shoe Bend - CI (Spun) fittings	Each	394
550	BMW-H.64	100 mm dia Shoe Bend - CI (Spun) fittings	Each	461
551	BMW-H.65	150 mm dia Shoe Bend - CI (Spun) fittings	Each	935
552	BMW-H.66	75 mm dia Collar - CI (Spun) fittings	Each	269
553	BMW-H.67	100 mm dia Collar - CI (Spun) fittings	Each	327
554	BMW-H.68	150 mm dia Collar - CI (Spun) fittings	Each	671
555	BMW-H.69	75 mm dia Cowl - CI (Spun) fittings	Each	238
556	BMW-H.70	100 mm dia Cowl - CI (Spun) fittings	Each	269
557	BMW-H.71	150 mm dia Cowl - CI (Spun) fittings	Each	604
558	BMW-H.72	75 mm dia Offset 3" (76.2 mm) projection - CI (Spun) fittings	Each	345
559	BMW-H.73	100 mm dia Offset 3" (76.2 mm) projection - CI (Spun) fittings	Each	418
560	BMW-H.74	150 mm dia Offset 3" (76.2 mm) projection - CI (Spun) fittings	Each	844
561	BMW-H.75	75 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	377
562	BMW-H.76	100 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	493
563	BMW-H.77	150 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	983
564	BMW-H.78	75 mm dia Long Door Bend - CI (Spun) fittings	Each	792
565	BMW-H.79	100 mm dia Long Door Bend - CI (Spun) fittings	Each	852
566	BMW-H.80	75 mm dia Hand Hole pipe (Inspection pipe)	Each	455
567	BMW-H.81	100 mm dia Hand Hole pipe (Inspection pipe)	Each	620
568	BMW-H.82	150 mm dia Hand Hole pipe (Inspection pipe)	Each	825
569	BMW-H.83	75 mm dia P Traps - CI (Spun) fittings	Each	493
570	BMW-H.84	100 mm dia P Traps - CI (Spun) fittings	Each	676
571	BMW-H.85	4" x 3" (101.6 mm x 76.2mm) P. Traps 100 mm dia - CI (Spun) fittings	Each	775
572	BMW-H.86	4" x 3" (101.6 mm x 76.2mm) Vent Traps 100 mm dia - CI (Spun) fittings	Each	775
573	BMW-H.87	4" x 3" (101.6 mm x 76.2mm) Reducer 75 mm dia - CI (Spun) fittings	Each	481
574	BMW-H.88	6" x 4" (152.4 mm x 101.6 mm) Reducer 75 mm dia - CI (Spun) fittings	Each	659
575	BMW-H.89	3" x 2" (76.2 mm x 50.8 mm) plain T 75 mm dia - CI (Spun)	Each	411

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		fittings		
576	BMW-H.90	3" x 2" (76.2 mm x 50.8 mm) Door T 75 mm dia - CI (Spun) fittings	Each	642
577	BMW-H.91	3" x 2" (76.2 mm x 50.8 mm) Plain Y 75 mm dia - CI (Spun) fittings	Each	642
578	BMW-H.92	3" x 2" (76.2 mm x 50.8 mm) Door Y 75 mm dia - CI (Spun) fittings	Each	642
579	BMW-H.93	4" x 3" (101.6 mm x 76.2mm) Plain T75 mm dia - CI (Spun) fittings	Each	642
580	BMW-H.94	4" x 3" (101.6 mm x 76.2mm) Door T75 mm dia - CI (Spun) fittings	Each	680
581	BMW-H.95	4" x 3" (101.6 mm x 76.2mm) Plain Y75 mm dia - CI (Spun) fittings	Each	680
582	BMW-H.96	4" x 3" (101.6 mm x 76.2mm) DoorY75 mm dia - CI (Spun) fittings	Each	726
583	BMW-H.97	6" x 4" (152.4 mm x101.6 mm) Plain T 75 mm dia - CI (Spun) fittings	Each	950
584	BMW-H.98	6" x 4" (152.4 mm x101.6 mm)Door T 75 mm dia - CI (Spun) fittings	Each	1029
585	BMW-H.99	6" x 4" (152.4 mm x101.6 mm) Plain Y 75 mm dia - CI (Spun) fittings	Each	1089
586	BMW-H.100	6" x 4" (152.4 mm x101.6 mm)DoorY 75 mm dia - CI (Spun) fittings	Each	1331
587	BMW-H.101	75 mm diaPlain " T" 27 " (685.8 mm) Special Types of Long Fittings	Each	1379
588	BMW-H.102	100 mm dia - Plain " T" 27 " (685.8 mm) Special Types of Long CI (Spun) fittings	Each	1937
589	BMW-H.103	75 mm dia Door "T" 27" (685.8 mm)Special Types of Long CI (Spun) fittings	Each	1540
590	BMW-H.104	100mm dia Door "T" 27" (685.8 mm)Special Types of Long CI (Spun) fittings	Each	2128
591	BMW-H.105	75 mm diaPlain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	1540
592	BMW-H.106	100mm diaPlain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2128
593	BMW-H.107	75 mm dia Door " Y" 27" (685.8 mm)Special Types of Long CI (Spun) fittings	Each	1717
594	BMW-H.108	100mm dia Door " Y" 27" (685.8 mm)Special Types of Long CI (Spun) fittings	Each	2337
	I	MISCELLANEOUS ITEMS		
595	BMW-I.01	a) Supplying & Fixing solder joints up to 50.8 mm dia	Each	56
596	BMW-I.02	b) - do - labour charges only	Each	19
597	BMW-I.03	a) Supplying & Fixing solution joints up to 50.8 dia 1st quality.	Each	11
598	BMW-I.04	b) - do - labour charges only	Each	2
599	BMW-I.05	Chiselling the stone masonry wall for fixing of wooden blocks including finishing as directed by the department	Each	30
600	BMW-I.06	Chiselling the stone masonry wall and repairs as directed by the department.	1 Rm	143
601	BMW-I.07	Chiselling the brick masonry wall and repairs as directed by the department.	1 Rm	30
602	BMW-I.08	a) S & F NP telephonic shower spray set & valve mixer with	Each	1896

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		rest and all fittings complete (ARK/ESSCO or equivalent make)		
603	BMW-I.09	b) - do - labour charges only	Each	401
604	BMW-I.10	a) S & F NP shower spray fancy with NP Flexible pipe	Each	508
605	BMW-I.11	b) - do - labour charges only	Each	133
606	BMW-I.12	a) S & F NP cover for Nahany trap	Each	29
607	BMW-I.13	b) - do - labour charges only	Each	19
608	BMW-I.14	a) Painting the flushing tank with white enamel paint	Each	105
609	BMW-I.15	b) - do - labour charges only	Each	64
610	BMW-I.16	S & F internal fittings for flush tank Parryplast wonder flush or equivalent	Each	694
611	BMW-I.17	Repairing and over hauling flushing tank	Each	80
612	BMW-I.18	a) Supplying & Fixing NP chain rubber and plug for basin	Each	37
613	BMW-I.19	b) - do - labour charges only	Each	7
614	BMW-I.20	a) S & F 25.4 mm dia& 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	146
615	BMW-I.21	b) - do - labour charges only	Each	44
616	BMW-I.22	a) S & F 19.04 mm dia& 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	130
617	BMW-I.23	b) - do - labour charges only	Each	67
618	BMW-I.24	a) S & F 609.6 mm long 127 mm wide plate glass shelf with superior quality aluminium railing complete with aluminium screws	Each	186
619	BMW-I.25	b) - do - labour charges only	Each	56
620	BMW-I.26	a) S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	60
621	BMW-I.27	b) - do - labour charges only	Each	11
622	BMW-I.28	a) S & F NP soap dish heavy type with NP SCREWS	Each	208
623	BMW-I.29	b) - do - labour charges only	Each	12
624	BMW-I.30	a) S & F NP holder brackets with screws	Each	43
625	BMW-I.31	b) - do - labour charges only	Each	14
626	BMW-I.32	a) S & F liquid soap container NP metallic with NP brackets and screws.	Each	209
627	BMW-I.33	b) - do - labour charges only	Each	22
628	BMW-I.34	a) S & F 31.75 mm C.P TRAPS	Each	273
629	BMW-I.35	b) - do - labour charges only	Each	44
630	BMW-I.36	a) Supplying & fixing 88.9 mm A.C cowls	Each	62
631	BMW-I.37	b) - do - labour charges only	Each	14
632	BMW-I.38	a)Supplying & fixing A.CCowl 63.5 mm dia	Each	42
633	BMW-I.39	b) - do - labour charges only	Each	11
634	BMW-I.40	Removing and refixing W.C s	Each	193
635	BMW-I.41	Removing and refixing wash hand basins of any size with fittings complete	Each	186
636	BMW-I.42	a)S & F 76.2 x 101.6 mm teak wood block complete	Each	23
637	BMW-I.43	b) - do - labour charges only	Each	9
638	BMW-I.44	Cutting holes in C.C; basement & repairs Labour charges only	Each	107
639	BMW-I.45	Cutting holes in stone masonry& basement and repairs Labour charges only	Each	72
640	BMW-I.46	Cutting holes in Brick masonry& repairs Labour charges only	Each	47

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
641	BMW-I.47	Cutting holes in RCC slab floor & repairs Labour charges only	Each	72
642	BMW-I.48	a) Supplying & Fixing 12.7 mm PVC connection with brass union nut C.P coated	Each	86
643	BMW-I.49	b) - do - labour charges only	Each	17
644	BMW-I.50	a) S & F 12.7 mm .M.P couplings	Each	31
645	BMW-I.51	b) - do - labour charges only	Each	11
646	BMW-I.52	a) S & F 19.05 mm M.P couplings	Each	37
647	BMW-I.53	b) - do - labour charges only	Each	11
648	BMW-I.54	a) S& F MP coupling 25.4 mm dia	Each	82
		b) - do - labour charges only	Each	11
649	BMW-I.55	a) S & FPVC Rubber adopter for LLC and bend	Each	17
650	BMW-I.56	b) - do - labour charges only	Each	8
651	BMW-I.57	a) S& F 31.75 mm Brass union nuts	Each	31
652	BMW-I.58	b) - do - labour charges only	Each	7
653	BMW-I.59	a) S& F 38.1 mm Brass union nuts	Each	33
654	BMW-I.60	b) - do - labour charges only	Each	9
655	BMW-I.61	a) Constructing Brick masonry chamber over the gully trap or peet valve and fitted with 304.8 x 228.6 m size CI frame and hinged cover.	Each	417
656	BMW-I.62	b) - do - labour charges only	Each	100
657	BMW-I.63	a) Constructing Brick masonry support for G.I pipe with C.M 304.8 x 228.6 x228.6 mm size including plastering and finishing etc. complete.	Each	68
658	BMW-I.64	b) - do - labour charges only	Each	22
659	BMW-I.65	a) Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	110
660	BMW-I.66	b) - do - labour charges only	Each	35
661	BMW-I.67	a) Supplying & fixing CI Nahany trap grating	Each	19
662	BMW-I.68	b) - do - labour charges only	Each	11
663	BMW-I.69	a) Supplying & fixing CI gully trap grating	Each	44
664	BMW-I.70	b) - do - labour charges only	Each	11
665	BMW-I.71	a) Supplying & fixing valves for brass ball cocks 25.4 mm dia	Each	17
666	BMW-I.72	b) - do - labour charges only	Each	9
667	BMW-I.73	a) Supplying & fixing 12.7 m valve for bib tap or stop cocks	Each	16
668	BMW-I.74	b) - do - labour charges only	Each	7
669	BMW-I.75	a) Supplying & fixing 19.05 m valve for bib tap or stop cocks	Each	35
670	BMW-I.76	b) - do - labour charges only	Each	11
671	BMW-I.77	Removing 12.7 mm Gpipe and refixing the same	Mr.	58
672	BMW-I.78	Removing 19.05 mm Gpipe and refixing the same	Mr.	63
673	BMW-I.79	Removing 25.4 mm Gpipe and refixing the same	Mr.	95
674	BMW-I.80	Removing 38.1 mm Gpipe and refixing the same	Rm	120
675	BMW-I.81	Removing 50.8 mm Gpipe and refixing the same	Rm	141
676	BMW-I.82	Cleaning the W.C with acid and Vim powder	Each	39
677	BMW-I.83	Cleaning the Urinal with acid and Vim power	Each	39
678	BMW-I.84	Cleaning the wash basin with acid and Vim powder	Each	39
679	BMW-I.85	Cleaning the E.W.C with acid and Vim power	Each	39
680	BMW-I.86	Supplying & fixing 914.4 x 457.2 mm CI man hole frame and	Each	1732

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		cover (light weight) 30 Kgs		
681	BMW-I.87	Supplying & fixing 602 x 602 mm CI man hole frame and cover (light weight) 30 Kgs	Each	2564
682	BMW-I.88	b) - do - labour charges only	Each	140
683	BMW-I.89	a) Supplying & fixing CI steps for septic tank.	Each	57
684	BMW-I.90	b) - do - labour charges only	Each	11
685	BMW-I.91	a) Supplying & fixing 50.8cm dia C.I. Man hole frame & cover for 914.4 mm dia chamber (20 Kgs - Light weight)	Each	1121
686	BMW-I.92	b) - do - labour charges only	Each	140
687	BMW-I.93	a) Supplying & fixing 50.8cm dia C.I. Man hole frame & cover for 914.4 mm dia chamber(Medium weight) as per IS:1726 - 40 Kgs	Each	2326
688	BMW-I.94	b) - do - labour charges only	Each	356
689	BMW-I.95	Cost. 50.8 mm thick RCM baffle wall with 2.267 Kg steel & rabbit wire mesh in CM 1:3 with fine rendering in neat cement labour charges Only	1Sqm	212
690	BMW-I.96	a) Cost. 50.8 mm RCC partition wall	1Sqm	238
691	BMW-I.97	b) - do - labour charges only	1 Sqm	44
692	BMW-I.98	a)S& F double layer of bamboo matting tarred on both sides.	10 Sqm	547
693	BMW-I.99	b) - do - labour charges only	10 Sqm	123
694	BMW-I.100	Removing of 101.6 m or 76.2 mm CI pipe	1 RM	30
695	BMW-I.101	a) Supplying & fixing 76.2 mm W.I clamps	Each	23
696	BMW-I.102	b) - do - labour charges only	Each	9
697	BMW-I.103	a) Supplying & fixing NP coat hook	Each	41
698	BMW-I.104	b) - do - labour charges only	Each	11
699	BMW-I.105	a) Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457 .2 mm	Each	452
700	BMW-I.106	b) - do - labour charges only	Each	116
701	BMW-I.107	a) Supplying & fixing GI pipe plug of size 12.7 mm dia	Each	9
702	BMW-I.108	b) - do - labour charges only	Each	1
703	BMW-I.109	a) Supplying & fixing 19.06 mm dia GI plug	Each	12
704	BMW-I.110	b) - do - labour charges only	Each	1
705	BMW-I.111	a) Supplying and fixing 38.1 mm dia of GI plug	Each	62
706	BMW-I.112	b) - do - labour charges only	Each	9
707	BMW-I.113	a) Supplying & fixing 50.8 mm dia of GI PLUG	Each	95
708	BMW-I.114	b) - do - labour charges only	Each	11
709	BMW-I.115	a) Supplying & fixing 76.2 mm dia of GI PLUG	Each	172
710	BMW-I.116	b) - do - labour charges only	Each	19
711	BMW-I.117	a) Supplying & fixing C.P flange.	Each	23
712	BMW-I.118	b) - do - labour charges only	Each	8
713	BMW-I.119	a) Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	6471
714	BMW-I.120	b) - do - labour charges only	Each	506
715	BMW-I.121	a) Supplying & fixing SINGLE BOWL stainless steel sink size 24"x18"x8 "(609.6 x 457.2 x 203.2mm) 1 mm thick with accessories	Each	5100
716	BMW-I.122	b) - do - labour charges only	Each	491
717	BMW-I.123	a) Supplying & fixing stainless steel sink size 20" x18" x 8	Each	4637

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		"(508x457.2x203.2mm) 1 mm thick with accessories		
718	BMW-I.124	b) - do - labour charges only	Each	449
719	BMW-I.125	Supplying & fixing 4 " x 24 " (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	470
720	BMW-I.126	Supply & Fixing of steel surgical long elbow action handle 12.7 mm dia bib cock Indian make heavy type including all materials	Each	853
721	BMW-I.127	Supply & fixing 2 1/2" (63.5mm) dia Sluice valve ISI mark with 2 Nos. flanges, 8 nos, 3/4" dia nuts & bolts and all necessary washers and packing materials etc. complete	Each	4672
722	BMW-I.128	Supply & fixing porcelain P' trap	Each	201
723	BMW-I.129	Supplying & fixing oval shape basin white (520x410mm)parry or equivalent	Each	2138
724	BMW-I.130	Supply & fixing RCC cover 22" dia with nominal reinforcement 3 " thick and hooks for lifting	Each	633
725	BMW-I.131	Supply & fixing cp spl. Grating with frame and cover of 1st quality	Each	54
726	BMW-I.132	Supply & fixing towel rod (CP) of 24" long and 3/4 " dia	Each	341
727	BMW-I.133	Supply & fixing of LLC handle set 1stquality	Each	68
728	BMW-I.134	Mechanical Cleaning of water sumps with pumps & UV disinfecting	1000 Lit	47
729	BMW-I.135	Supply & fixing 4" dia CP thimble pipe: 150 mm long	Each	356
730	BMW-I.136	Supply & fixing 4" dia CP thimble pipe:220 mm long	Each	532
731	BMW-I.137	Supply & fixing 4" dia CP thimble pipe: 300 mm long	Each	710
732	BMW-I.138	Supply & fixing CP long bend	Each	301
733	BMW-I.139	Supply & fixing CP short bend	Each	151
734	BMW-I.140	Supplying & fixing 15 mm bib tap with flange Chromeum plated Jaquar make queen series	Each	1483
735	BMW-I.141	Supply & fixing bib cock cum health faucet with 1 m long flexible tube and wall hook ofJaquar make queen series with 7 years warranty Chrome plated	Each	3758
736	BMW-I.142	Supply & fixing bib cock cum health faucet with 1 m long flexible tube and wall hook ofJaquar make queen series with 7 years warranty: Ivory gold	Each	6319
737	BMW-I.143	Supply & fixing pillar cock Jaquar make Queen series with 7 years warranty: Chrome plated	Each	1557
738	BMW-I.144	Supply & fixing pillar cock Jaquar make Queen series with 7 years warranty: Ivory gold	Each	2658
739	BMW-I.145	Supply & fixing Angular stop cocks with wall flange Jaquar make Queen series with 7 years warranty: Chrome plated	Each	1537
740	BMW-I.146	Supply & fixing Angular stop cocks with wall flange Jaquar make Queen series with 7 years warranty: Ivory gold	Each	2976
741	BMW-I.147	Supply & fixing Waste coupling 32 mm size full thread with 80 mm heightJaquar make with 7 years warranty: Chrome plated	Each	345
742	BMW-I.148	Supply & fixing of Bottle trap Jaquar make with 7 years warranty: Chrome plated	Each	1469
743	BMW-I.149	Supply & fixing of Bottle trap Jaquar make with 7 years warranty: Ivory gold	Each	2484
744	BMW-I.150	Supply & Fixing copper pipe 450 mm long with nuts & washers Jaquar make with 7 years warranty: Chrome plated	Each	361

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
745	BMW-I.151	Supply & Fixing copper pipe 450 mm long with nuts & washers Jaquar make with 7 years warranty:Ivory gold	Each	699
746	BMW-I.152	Supply and fixing wall mirror with provision for over head shower and 115 mm long bend pipe with wall flange Jaquarmake queen series with 7 years warranty:Chrome plated	Each	4748
747	BMW-I.153	Supply and fixing wall mirror with provision for over head shower and 115 mm long bend pipe with wall flange Jaquarmake queen series with 7 years warranty: Ivory gold	Each	7469
748	BMW-I.154	Supply & fixing overhead shower rose with revolving joint and 150 mm long swivel shower arm Jaquar make queen series. with 7 years warranty:Chrome plated	Each	2203
749	BMW-I.155	Supply & fixing overhead shower rose with revolving joint and 150 mm long swivel shower arm Jaquar make queen series. with 7 years warranty: Ivory Gold	Each	3228
750	BMW-I.156	Supply and Fixing Wall Mixer with Telephonic shower arrangement with crutch and flexible pipe Jaquar series Ivory gold colour for bath tub. with 7 years warranty	Each	12584
751	BMW-I.157	Supply & fixing Bath tub overflow set complete with over flow cap, 450 mm Ball chain with rubber plug & union bend with brass nut Jaquar make, Ivory gold colour. with 7 years warranty	Each	1532
752	BMW-I.158	Supply & fixing sink cock with regular swinging spout with wall flange chromeplated Jaquar make Queen series with 7 years warranty	Each	2201
753	BMW-I.159	Supply & fixing soap dish Jaquar make queen series: with 7 years warranty:Chrome plated	Each	1445
754	BMW-I.160	Supply & fixing soap dish Jaquar make queen series: with 7 years warranty: Ivory Gold	Each	2120
755	BMW-I.161	Supply & fixing of toilet paper holder Jaquar make Queen series. with 7 years warranty: Chrome plated	Each	1164
756	BMW-I.162	Supply & fixing of toilet paper holder Jaquar make Queen series. with 7 years warranty: Ivory Gold	Each	2049
757	BMW-I.163	Supply & Fixing of Towel ring Jaquar make Queen series with 7 years warranty: Chrome plated	Each	1094
758	BMW-I.164	Supply & Fixing of Towel ring Jaquar make Queen series with 7 years warranty: Ivory Gold	Each	1787
759	BMW-I.165	Supply & Fixing of towel coat hook Jaquar make Queen series with 7 years warranty:Chrome plated	Each	814
760	BMW-I.166	Supply & Fixing of towel coat hook Jaquar make Queen series with 7 years warranty:Ivory Gold	Each	1684
761	BMW-I.167	Supply & Fixing of Towel rod 24 " Jaquar make Queen series Ivory gold colour with 7 years warranty	Each	2793
762	BMW-I.168	Supply & Fixing of Tumbler holder Jaquar make Queen series, Ivory gold colour with 7 years warranty	Each	1957
763	BMW-I.169	Supply & fixing of Glass shelf 22" Jaquar make Queen series, Ivory gold colour with 7 years warranty	Each	3817
764	BMW-I.170	Supply & Fixing of Bibcock cum Health Faucet with 1m long tube and wall hook of Jaquar Continental series, Chrome Finish with 7 years warranty	Each	2769
765	BMW-I.171	Supply & Fixing of Bibcock Jaquar Continental series, Chrome Finish with 7 years warranty	Each	814
766	BMW-I.172	Supply & Fixing of Pillar cock Jaquar Continental series,	Each	1011

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		Chrome Finish with 7 years warranty		
767	BMW-I.173	Supply & Fixing of Angular stopcock with wall flange Jaquar Continental series, Chrome finish with 7 years warranty	Each	752
768	BMW-I.174	Supply fixing of Waste coupling Jaquar make, Chrome finish with 7 years warranty	Each	327
769	BMW-I.175	Supply & Fixing of Bottle Trap Jaquar make, Chrome finish with 7 years warranty	Each	1469
770	BMW-I.176	Supply & Fixing of copper pipe 450mm long with nuts & washers Jaquar make, Chrome Finish with 7 years warranty	Each	327
771	BMW-I.177	Supply & Fixing of Wall Mixer with provision for overhead shower and 115mm long bend pipe with wall flange Jaquar make Continental series, Chrome finish with 7 years warranty	Each	3556
772	BMW-I.178	Supply & Fixing of Exclusive overhead shower with 190mm long light body shower arm Jaquar make Continental series, Chrome finish with 7 years warranty	Each	1519
773	BMW-I.179	Supply & Fixing wall mixer with telephonic shower arrangement with crutch and telephone shower with flexible tube Jaquar make Continental series Chrome colour for bath tub with 7 years warranty	Each	4965
774	BMW-I.180	Supply & Fixing bath tub over flow set complete with over flow cap,450mm ball chain with rubber plug 7 Union bend with brass nuts Jaquar make, Chrome colour with 7 years warranty	Each	1159
775	BMW-I.181	Supply & Fixing Sink cock with regular swinging spout with flange chrome plated Jaquar make Continental series with 7 years warranty	Each	1431
776	BMW-I.182	Supply & Fixing soap dish Jaquar make Continental series, Chrome Finish with 7 years warranty	Each	1127
777	BMW-I.183	Supply & Fixing of Toilet paper holder Jaquar make Continental series, Chrome finish with 7 years warranty	Each	752
778	BMW-I.184	Supply & Fixing of Towel Ring Jaquar make Continental series, Chrome finish with 7 years warranty	Each	865
779	BMW-I.185	Supply & Fixing Double coat hook Jaquar make Continental series, Chrome finish with 7 years warranty	Each	646
780	BMW-I.186	Supply & Fixing of towel rail 24" Jaquar make Continental series, Chrome finish with 7 years warranty	Each	1397
781	BMW-I.187	Supply & Fixing of Tumblerholder Jaquar make Continental series, Chrome finish with 7 years warranty	Each	942
782	BMW-I.188	Supply & Fixing of Glass shelf 22" Jaquar make Continental series, Chrome finish with 7 years warranty	Each	1852
783	BMW-I.189	Supply & Fixing of Bibcock cum Health Faucet with 1m long tube and wall hook of Jaquar Florentine(Quarter turn) series, Chrome Finish with 7 years warranty	Each	3313
784	BMW-I.190	Supply & Fixing of Bibcock Jaquar Florentine (Quarter turn)series, Chrome Finish with 7 years warranty	Each	1117
785	BMW-I.191	Supply & Fixing of Pillar cock Jaquar Florentine(Quarter turn) series, Chrome Finish with 7 years warranty	Each	1117
786	BMW-I.192	Supply & Fixing of Angular stopcock with wall flange Jaquar Florentine(Quarter turn)series, Chrome finish with 7 years warranty	Each	1099
787	BMW-I.193	Supply & Fixing of Bottle Trap Jaquar make, Chrome finish with 7 years warranty	Each	1469
788	BMW-I.194	Supply & Fixing of Wall Mixer with provision for overhead shower and 115mm long bend pipe with wall flange Jaquar	Each	4291

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		make Florentine(Quarter turn) series, Chrome finish with 7 years warranty		
789	BMW-I.195	Supply & Fixing wall mixer with telephonic shower arrangement with crutch and telephone shower with flexible tube Jaquar make Florentine(Quarter turn) series Chrome colour for bath tub with 7 years warranty	Each	6467
790	BMW-I.196	Supply & Fixing Sink cock with regular swinging spout with flange chrome plated Jaquar make Florentine(Quarter turn) series with 7 years warranty	Each	1714
791	BMW-I.197	Supply & Fixing of Rose shower with revolving ball joint & 115mm long shower arm with 7 years warranty	Each	1821
792	BMW-I.198	Supply & Fixing of Jaquar make chrome plated Metro pole flush valveconcealed type with cover plate 40mm size with 7 years warranty	Each	3189
793	BMW-I.199	Supply & Fixing of Jaquar make Sensotronic sensor faucet for wash basin, Chrome plated with 7 years warranty	Each	12525
794	BMW-I.200	Supply & fixing of Jaquar make Sensotronic concealed type flushing valve for urinal complete set with installation box with control cock, Chrome plated with 7 years warranty	Each	12525
795	BMW-I.201	Supply & fixing of Jaquar make Auto closing system pillar cock for wash basin, Chrome plated with 7 years warranty	Each	2075
796	BMW-I.202	Supply& Fixing of Jaquar make Auto Closing system Bibcock, Chrome plated with 7 years warranty	Each	2177
797	BMW-I.203	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc :16 mm OD pipe	1 RM	133
798	BMW-I.204	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc :20 mm OD pipe	1 RM	165
799	BMW-I.205	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc: 25mm OD pipe	1 RM	207
800	BMW-I.206	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc: 32 mm OD pipe	1 RM	278

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
801	BMW-I.207	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc: 40 mm OD pipe	1 RM	365
802	BMW-I.208	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc : 50 mm OD pipe	1 RM	464
803	BMW-I.209	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc16 mm OD pipe	1 RM	192
804	BMW-I.210	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc20 mm OD pipe	1 RM	230
805	BMW-I.211	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc25mm OD pipe	1 RM	284
806	BMW-I.212	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc32 mm OD pipe	1 RM	375
807	BMW-I.213	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows,	1 RM	487

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		tees, reducers, couplers, connectors etc complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc40 mm OD pipe		
808	BMW-I.214	S&F KITEC Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc50 mm OD pipe	1 RM	615
809	BMW-I.215	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc16 mm OD pipe	1 RM	157
810	BMW-I.216	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc20 mm OD pipe	1 RM	186
811	BMW-I.217	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc25mm OD pipe	1 RM	226
812	BMW-I.218	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc32 mm OD pipe	1 RM	292
813	BMW-I.219	S&F Polyethylene-Aluminium-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning	1 RM	374

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
		etc 40 mm OD pipe		
		Supply and Fixing of Premium make CPVC Pipes and Fittings to meet the requirement of ASTM-D 2846 and are produced in CTS (Copper Tube Sizes 1/2" to 2" Ashirvad Flowguard SDR 11 and SDR 13.5 pipes are made from identical CPVC compounds having the same physical Properties for Hot and Cold Water (IS 15778:2007)		
814	BMW-I.220	15.90mm ODPipe - SDR 13.5	1 RM	53
815	BMW-I.221	22.20mm ODPipe - SDR 13.5	1 RM	85
816	BMW-I.222	28.60mm ODPipe - SDR 13.5	1 RM	123
817	BMW-I.223	34.90mm ODPipe - SDR 13.5	1 RM	193
818	BMW-I.224	41.30mm ODPipe - SDR 13.5	1 RM	266
819	BMW-I.225	54mm ODPipe - SDR 13.5	1 RM	437
820	BMW-I.226	15.90mm ODPipe - SDR 11	1 RM	61
821	BMW-I.227	22.20mm ODPipe - SDR 11	1 RM	93
822	BMW-I.228	28.60mm ODPipe - SDR 11	1 RM	144
823	BMW-I.229	34.90mm ODPipe - SDR 11	1 RM	229
824	BMW-I.230	41.30mm ODPipe - SDR 11	1 RM	314
825	BMW-I.231	54mm ODPipe - SDR 11	1 RM	483
826	BMW-I.232	Supply of 20mm x 1.9mm PN 10/PPR Pipe conforming to DIN Standards 8077/8078 conforming to IS15801	1 RM	41
827	BMW-I.233	Supply of 25mm x 2.3mm PN 10/PPR Pipe conforming to DIN Standards 8077/8078 conforming to IS15801	1 RM	62
828	BMW-I.234	Supply of 32mm x 2.9mm PN 10/PPR Pipe conforming to DIN Standards 8077/8079 conforming to IS15801	1 RM	97
829	BMW-I.235	Supply of 40mm x 3.7mm PN 10/PPR Pipe conforming to DIN Standards 8077/8079 conforming to IS15801	1 RM	152
830	BMW-I.236	Supply of 50mm x 4.6mm PN 10/PPR Pipe conforming to DIN Standards 8077/8080 conforming to IS15801	1 RM	272
831	BMW-I.237	Supply of 63mm x 5.8mm PN 10/PPR Pipe conforming to DIN Standards 8077/8081 conforming to IS15801	1 RM	427
832	BMW-I.238	Supply of 75mm x 6.8mm PN 10/PPR Pipe conforming to DIN Standards 8077/8082 conforming to IS15801	1 RM	594
833	BMW-I.239	Supply of 90mm x 8.2mm PN 10/PPR Pipe conforming to DIN Standards 8077/8083 conforming to IS15801	1 RM	815
834	BMW-I.240	Supply of 110mm x 10mm PN 10/PPR Pipe conforming to DIN Standards 8077/8084 conforming to IS15801	1 RM	1208
835	BMW-I.241	Supply of 20mm x 2.8mm PN 16/PPR Pipe conforming to DIN Standards 8077/8078 conforming to IS15801	1 RM	56
836	BMW-I.242	Supply of 25mm x 3.5mm PN 16/PPR Pipe conforming to DIN Standards 8077/8078 conforming to IS15801	1 RM	86
837	BMW-I.243	Supply of 32mm x 4.4mm PN 16/PPR Pipe conforming to DIN Standards 8077/8079 conforming to IS15801	1 RM	138
838	BMW-I.244	Supply of 40mm x 5.5mm PN 16/PPR Pipe conforming to DIN Standards 8077/8079 conforming to IS15801	1 RM	212
839	BMW-I.245	Supply of 50mm x 6.9mm PN 16/PPR Pipe conforming to DIN Standards 8077/8080 conforming to IS15801	1 RM	380
840	BMW-I.246	Supply of 63mm x 8.6mm PN 16/PPR Pipe conforming to DIN Standards 8077/8081 conforming to IS15801	1 RM	599
841	BMW-I.247	Supply of 75mm x 10.3mm PN 16/PPR Pipe conforming to DIN Standards 8077/8082 conforming to IS15801	1 RM	846

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
842	BMW-I.248	Supply of 90mm x 12.3mm PN 16/PPR Pipe conforming to DIN Standards 8077/8083 conforming to IS15801	1 RM	1206
843	BMW-I.249	Supply of 110mm x 15.1mm PN 16/PPR Pipe conforming to DIN Standards 8077/8084 conforming to IS15801	1 RM	1807
844	BMW-I.250	Supply of 20mm x 3.4mm PN 20/PPR Pipe conforming to DIN Standards 8077/8078 conforming to IS15801	1 RM	65
845	BMW-I.251	Supply of 25mm x 4.2mm PN 20/PPR Pipe conforming to DIN Standards 8077/8078 conforming to IS15801	1 RM	100
846	BMW-I.252	Supply of 32mm x 5.4mm PN 20/PPR Pipe conforming to DIN Standards 8077/8079 conforming to IS15801	1 RM	161
847	BMW-I.253	Supply of 40mm x 6.7mm PN 20/PPR Pipe conforming to DIN Standards 8077/8079 conforming to IS15801	1 RM	247
848	BMW-I.254	Supply of 50mm x 8.3mm PN 20/PPR Pipe conforming to DIN Standards 8077/8080 conforming to IS15801	1 RM	439
849	BMW-I.255	Supply of 63mm x 10.5mm PN 20/PPR Pipe conforming to DIN Standards 8077/8081 conforming to IS15801	1 RM	693
850	BMW-I.256	Supply of 75mm x 12.5mm PN 20/PPR Pipe conforming to DIN Standards 8077/8082 conforming to IS15801	1 RM	984
851	BMW-I.257	Supply of 90mm x 15mm PN 20/PPR Pipe conforming to DIN Standards 8077/8083	1 RM	1337
852	BMW-I.258	Supply of 110mm x 18.3mm PN 20/PPR Pipe conforming to DIN Standards 8077/8084 conforming to IS15801	1 RM	2105
853	BMW-I.259	Supply of 20mm PPR Socket conforming to DIN Standards 8077/8084	1 RM	9
854	BMW-I.260	Supply of 25mm PPR Socket conforming to DIN Standards 8077/8085	1 RM	13
855	BMW-I.261	Supply of 32mm PPR Socket conforming to DIN Standards 8077/8086	1 RM	18
856	BMW-I.262	Supply of 40mm PPR Socket conforming to DIN Standards 8077/8087	1 RM	30
857	BMW-I.263	Supply of 50mm PPR Socket conforming to DIN Standards 8077/8088	1 RM	59
858	BMW-I.264	Supply of 63mm PPR Socket conforming to DIN Standards 8077/8089	1 RM	113
859	BMW-I.265	Supply of 75mm PPR Socket conforming to DIN Standards 8077/8090	1 RM	173
860	BMW-I.266	Supply of 90mm PPR Socket conforming to DIN Standards 8077/8091	1 RM	331
861	BMW-I.267	Supply of 110mm PPR Socket conforming to DIN Standards 8077/8092	1 RM	589
862	BMW-I.268	Supply of 32mm PPR Core Flange conforming to DIN Standards 8077/8086	Each	36
863	BMW-I.269	Supply of 40mm PPR Core Flange conforming to DIN Standards 8077/8087	Each	57
864	BMW-I.270	Supply of 50mm PPR Core Flange conforming to DIN Standards 8077/8088	Each	74
865	BMW-I.271	Supply of 63mm PPR Core Flange conforming to DIN Standards 8077/8089	Each	117
866	BMW-I.272	Supply of 75mm PPR Core Flange conforming to DIN Standards 8077/8090	Each	136
867	BMW-I.273	Supply of 90mm PPR Core Flange conforming to DIN Standards 8077/8091	Each	348

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
868	BMW-I.274	Supply of 110mm PPR Core Flange conforming to DIN Standards 8077/8092	Each	450
869	BMW-I.275	Supply of 20mm PPR Elbow conforming to DIN Standards 8077/8084	Each	15
870	BMW-I.276	Supply of 25mm PPR Elbow conforming to DIN Standards 8077/8085	Each	19
871	BMW-I.277	Supply of 32mm PPR Elbow conforming to DIN Standards 8077/8086	Each	36
872	BMW-I.278	Supply of 40mm PPR Elbow conforming to DIN Standards 8077/8087	Each	63
873	BMW-I.279	Supply of 50mm PPR Elbow conforming to DIN Standards 8077/8088	Each	119
874	BMW-I.280	Supply of 63mm PPR Elbow conforming to DIN Standards 8077/8089	Each	232
875	BMW-I.281	Supply of 75mm PPR Elbow conforming to DIN Standards 8077/8090	Each	375
876	BMW-I.282	Supply of 90mm PPR Elbow conforming to DIN Standards 8077/8091	Each	698
877	BMW-I.283	Supply of 110mm PPR Elbow conforming to DIN Standards 8077/8092	Each	1295
878	BMW-I.284	Supply of 20mm PPR Tee conforming to DIN Standards 8077/8084	Each	14
879	BMW-I.285	Supply of 25mm PPR Tee conforming to DIN Standards 8077/8085	Each	24
880	BMW-I.286	Supply of 32mm PPR Tee conforming to DIN Standards 8077/8086	Each	43
881	BMW-I.287	Supply of 40mm PPR Tee conforming to DIN Standards 8077/8087	Each	76
882	BMW-I.288	Supply of 50mm PPR Tee conforming to DIN Standards 8077/8088	Each	135
883	BMW-I.289	Supply of 63mm PPR Tee conforming to DIN Standards 8077/8089	Each	275
884	BMW-I.290	Supply of 75mm PPR Tee conforming to DIN Standards 8077/8090	Each	538
885	BMW-I.291	Supply of 90mm PPR Tee conforming to DIN Standards 8077/8091	Each	781
886	BMW-I.292	Supply of 110mm PPR Tee conforming to DIN Standards 8077/8092	Each	1353
887	BMW-I.293	Supply of 20mm PPR End Cap conforming to DIN Standards 8077/8084	Each	6
888	BMW-I.294	Supply of 25mm PPR End Cap conforming to DIN Standards 8077/8085	Each	9
889	BMW-I.295	Supply of 32mm PPR End Cap conforming to DIN Standards 8077/8086	Each	18
890	BMW-I.296	Supply of 40mm PPR End Cap conforming to DIN Standards 8077/8087	Each	30
891	BMW-I.297	Supply of 50mm PPR End Cap conforming to DIN Standards 8077/8088	Each	53
892	BMW-I.298	Supply of 63mm PPR End Cap conforming to DIN Standards 8077/8089	Each	113
893	BMW-I.299	Supply of 75mm PPR End Cap conforming to DIN Standards 8077/8090	Each	190

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
894	BMW-I.300	Supply of 90mm PPR End Cap conforming to DIN Standards 8077/8091	Each	303
895	BMW-I.301	Supply of 110mm PPR End Cap conforming to DIN Standards 8077/8092	Each	599
896	BMW-I.302	Supply of 25mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	11
897	BMW-I.303	Supply of 32mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	19
898	BMW-I.304	Supply of 32mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	18
899	BMW-I.305	Supply of 40mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	31
900	BMW-I.306	Supply of 40mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	30
901	BMW-I.307	Supply of 40mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	30
902	BMW-I.308	Supply of 50mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	46
903	BMW-I.309	Supply of 50mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	47
904	BMW-I.310	Supply of 50mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	47
905	BMW-I.311	Supply of 50mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	48
906	BMW-I.312	Supply of 63mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	105
907	BMW-I.313	Supply of 63mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	105
908	BMW-I.314	Supply of 63mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	106
909	BMW-I.315	Supply of 63mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	107
910	BMW-I.316	Supply of 63mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	108
911	BMW-I.317	Supply of 75mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	156
912	BMW-I.318	Supply of 75mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	157
913	BMW-I.319	Supply of 75mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	199
914	BMW-I.320	Supply of 90mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	380
915	BMW-I.321	Supply of 90mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	403
916	BMW-I.322	Supply of 110mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	508
917	BMW-I.323	Supply of 110mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	591
918	BMW-I.324	Supply of 110mm x 90mm PPR Reducer conforming to DIN Standards 8077/8092	Each	637
919	BMW-I.325	Supply of 25mm x 20mm x 25mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	30

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
920	BMW-I.326	Supply of 32mm x 25mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	52
921	BMW-I.327	Supply of 32mm x 20mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	52
922	BMW-I.328	Supply of 40mm x 20mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	86
923	BMW-I.329	Supply of 40mm x 25mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	87
924	BMW-I.330	Supply of 40mm x 32mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	89
925	BMW-I.331	Supply of 50mm x 20mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	124
926	BMW-I.332	Supply of 50mm x 25mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	125
927	BMW-I.333	Supply of 50mm x 32mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	129
928	BMW-I.334	Supply of 50mm x 40mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	130
929	BMW-I.335	Supply of 63mm x 20mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	358
930	BMW-I.336	Supply of 63mm x 25mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	360
931	BMW-I.337	Supply of 63mm x 32mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	365
932	BMW-I.338	Supply of 63mm x 40mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	371
933	BMW-I.339	Supply of 63mm x 50mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	377
934	BMW-I.340	Supply of 75mm x 50mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	506
935	BMW-I.341	Supply of 75mm x 63mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	514
936	BMW-I.342	Supply of 90mm x 50mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	681
937	BMW-I.343	Supply of 90mm x 63mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	724
938	BMW-I.344	Supply of 110mm x 75mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1235
939	BMW-I.345	Supply of 110mm x 90mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1284
940	BMW-I.346	Supply of 20mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	95
941	BMW-I.347	Supply of 25mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	97
942	BMW-I.348	Supply of 25mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	170
943	BMW-I.349	Supply of 32mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	174
944	BMW-I.350	Supply of 32mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	179
945	BMW-I.351	Supply of 32mm x 1" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	277

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
946	BMW-I.352	Supply of 40mm x 1¼" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	410
947	BMW-I.353	Supply of 50mm x 1½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	572
948	BMW-I.354	Supply of 63mm x 2" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	761
949	BMW-I.355	Supply of 75mm x 2½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1467
950	BMW-I.356	Supply of 20mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	147
951	BMW-I.357	Supply of 25mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	152
952	BMW-I.358	Supply of 25mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	222
953	BMW-I.359	Supply of 32mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	232
954	BMW-I.360	Supply of 32mm x 1" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	431
955	BMW-I.361	Supply of 40mm x 1¼" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	505
956	BMW-I.362	Supply of 50mm x 1½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	706
957	BMW-I.363	Supply of 63mm x 2" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1086
958	BMW-I.364	Supply of 75mm x 2½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1737
959	BMW-I.365	Supply of 20mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	102
960	BMW-I.366	Supply of 25mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	106
961	BMW-I.367	Supply of 25mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	163
962	BMW-I.368	Supply of 32mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	157
963	BMW-I.369	Supply of 32mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	183
964	BMW-I.370	Supply of 32mm x 1" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	306
965	BMW-I.371	Supply of 20mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	152
966	BMW-I.372	Supply of 25mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	167
967	BMW-I.373	Supply of 25mm x ¾" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	221
968	BMW-I.374	Supply of 32mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	212
969	BMW-I.375	Supply of 32mm x 1" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	458
970	BMW-I.376	Supply of 20mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	98
971	BMW-I.377	Supply of 25mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	108

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
972	BMW-I.378	Supply of 25mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	179
973	BMW-I.379	Supply of 32mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	189
974	BMW-I.380	Supply of 32mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	212
975	BMW-I.381	Supply of 32mm x 1" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	298
976	BMW-I.382	Supply of 20mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	153
977	BMW-I.383	Supply of 25mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	163
978	BMW-I.384	Supply of 25mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	234
979	BMW-I.385	Supply of 32mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	240
980	BMW-I.386	Supply of 32mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	253
981	BMW-I.387	Supply of 32mm x 1" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	467
982	BMW-I.388	Supply of 20mm x ½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	394
983	BMW-I.389	Supply of 25mm x ¾" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	591
984	BMW-I.390	Supply of 32mm x 1" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	789
985	BMW-I.391	Supply of 40mm x 1¼" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1106
986	BMW-I.392	Supply of 50mm x 1½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1777
987	BMW-I.393	Supply of 63mm x 2" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	2822
988	BMW-I.394	Supply of 20mm x ½" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	452
989	BMW-I.395	Supply of 25mm x ¾" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	601
990	BMW-I.396	Supply of 32mm x 1" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	789
991	BMW-I.397	Supply of 40mm x 1¼" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	986
992	BMW-I.398	Supply of 50mm x 1½" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	1875
993	BMW-I.399	Supply of 63mm x 2" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	3159
994	BMW-I.400	Supply of 20mm PPR Union conforming to DIN Standards 8077/8092	Each	86
995	BMW-I.401	Supply of 25mm PPR Union conforming to DIN Standards 8077/8092	Each	101
996	BMW-I.402	Supply of 32mm PPR Union conforming to DIN Standards 8077/8092	Each	166
997	BMW-I.403	Supply of 20mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	157

Sl. No	Item Code	Description of item	Unit	Basic RATE for SoR 2018-19
998	BMW-I.404	Supply of 25mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	207
999	BMW-I.405	Supply of 32mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	218
1000	BMW-I.406	Supply of 40mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	445
1001	BMW-I.407	Supply of 50mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	519
1002	BMW-I.408	Supply of 63mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	840
1003	BMW-I.409	Supply of 75mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1382
1004	BMW-I.410	Supply of 90mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1975
1005	BMW-I.411	Supply of 20mm PPR Clamp conforming to DIN Standards 8077/8092	Each	9
1006	BMW-I.412	Supply of 25mm PPR Clamp conforming to DIN Standards 8077/8092	Each	12
1007	BMW-I.413	Supply of 32mm PPR Clamp conforming to DIN Standards 8077/8092	Each	14
1008	BMW-I.414	Supply of 40mm PPR Clamp conforming to DIN Standards 8077/8092	Each	15
1009	BMW-I.415	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc with welding the joint as per standard practice - up to 40 mm dia	1 RM	31
1010	BMW-I.416	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc with welding the joint as per standard practice - above 40 mm dia	1 RM	53
NOTE				
1	All the items to be used on work are of first quality & ISI and as approved by the Engineer In charge of the work.			
2	Rates given above are:			
	a) Ratefor finished item of work			
	b) Labour charges only			
3	RATES			
	Supply Rates for all the materials are based on market rates excluding GST.			
4	LABOUR Labour charges are increased based on proposals and market rates			
5	Coloured porcelain items: 50% extra may be allowed on basic cost of white porcelain items excluding fittings			
6	SSR Rates for Sanitary & water supply items are purely for guidance for the officers for preparation of estimates vide Para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in Para 45 of APPWD code.			
	LEGEND			
	"BMW" -X.XX	"BMW" for Water Supply & Sanitary items		
	XXX-"A".XX	"A" for Name of the Section		
	XXX-X."01"	"01" for Serial Number of the Item		

LIST OF Brands / MANUFACTURERS / SUPPLIERS OF WATER SUPPLY AND SANITARY ITEMS

Sl. No	SECTION	NAMES OF THE ITEMS	NAMES OF THE BRAND / MANUFACTURER/ SUPPLIER
1	SECTION – C	C.I. PIPES & FITTINGS -AS PER - IS 1729:1979	B.I.C., NECO or equivalent, NVR
2	SECTION – D	VITREOUS CHINAWARE - SANITARY APPLIANCES as per IS:2556 – 1974	Hindustan Sanitary ware/ Parryware/ Neycer/ CERA / Jaquar/kerovit –kajaria/ H&R Johnson, SCONE Ceramics, Plastro Craft.
3	SECTION – E	TAPS & FAUCETS	Seiko/ Senior/ Nice/ CERA/ Hindware – PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson /Karla, Plastro craft, HSIL/Coronet
4	SECTION – F	G.I. PIPES & FITTINGS	Pipes -Tata, Sail, Zenith: Fittings - HB : Valves – Zoloto, Sant valves/ JSW/ Oswal,NVR, Lehry Valves
5	SECTION – G	PVC PIPES & FITTINGS	Sintex for PVC tanks,Pipes and Fittings – Prince/ Finolex / Sudhakar/Kisan/Supreme/ AKG or any ISI Brand, LLC Tanks - Parry ware, Slim line, CERA/ UNIFLEX / ASTRAL UPVC & CPVC pipes, AJAY, Aqua excel, Birla Aerocon
6	SECTION – H	CENTRIFUGAL CAST IRON PIPES & FITTINGS AS PER IS: 3989 – 1984	B.I.C., NECO - ISI brand
7	SECTION – I	MISCELLANEOUS	Special Taps and CP Fittings - Jaquar / Jupiter Aqua Lines-JAL/ CERA/ NECO Hubless pipes SFMC PPR & PVC Pipes, Harshavardahan international / supreme, ASTRAL UPVC & CPVC pipes, CPVC Sudhakar Pipes, Coronet, Ashirvad, Prince, Kisan, NVR,Aqua Tech, H& R Johnson, Aparna, Lehry Valves, Birla Aerocon, AKG.
<p>Note: 1) All Building Materials conforming to ISI Standards shall be used in all CIVIL, Water Supply & Sanitary Fittings, Electrical and Electro-Mechanical Works.</p> <p>2) Not only limiting to the Brand / Manufacturer / Supplier for Materials/Products mentioned above,Material / Product conforming to the Specification and Standards of ISI from any Brand / Manufacturer, shall also be allowed in all CIVIL, Water Supply & Sanitary Fittings, Electrical and Electro-Mechanical Works also.</p>			

ELECTRICAL AND ELECTRO-MECHANICAL WORKS

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1.2	PVC CONDUIT PIPES		
1.3	METAL BOXES FOR SWITCH BOARDS		
1.4	T.W. BOARDS		
1.5	COPPER FLEXIBLE CABLES		
1.6	SERVICE MAINS AND FLAT CABLES OF ISI FOR SUBMERSIBLE MOTORS.		
1.7	FLUSH TYPE SWITCHES AND ACCESSORIES		
1.8	MODULAR SWITCHES AND ACCESSORIES		
	SECTION - 2		
2.1	PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS		
2.2	ON LOAD CHANGE OVER SWITCHES. (OPEN EXECUTION)		
2.3	OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE		
2.4	AUTO TRANSFER SWITCH		
2.5	REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE		
2.6	HRC FUSE LINKS (BOLTED TYPE)		
2.7	PORCELAIN REWIRABLE FUSE UNITS.		
2.8	VOLTAGE SURGE PROTECTORS		
2.9	PANEL MOUNTING MCCBs/ ACBs/BUS DUCTs		
2.10	MCBs		
2.11	ISOLATORS		
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3.2	LED POST TOP LANTERN LUMINAIRES		
3.3	ACCESSORIES FOR MV / SV / MH LUMINAIRES i.e., COPPER BALLASTS, ENERGY SAVING ELECTRONIC BALLAST FOR STREET LIGHT, CAPACITORS, IGNITORS		
3.4	LAMPS		
3.5	AUTOMATIC STREET LIGHT CONTROL SYSTEMS		
3.6	INTERNAL LUMINAIRES		
3.7	FLOURSCENT / CFL LAMPS/LED BULBS		
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4.1	U.G. CABLES		
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5.5	AIR CONDITIONERS(SPLIT/CASSETTEE)		
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5.7	EVAPORATIVE AIR COOLING SYSTEM		
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5.9	REPAIRING OF FANS,COOLERS,PUMPS,MOTORS, FRIDGES AND AIR CONDITIONERS		
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6.1	SWAGED, OCTOGANAL AND GRP POLES AND ACCESSORIES.		

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	SECTION - 7		
7.1	LOCAL AREA NETWORK		
7.2	RACEWAYS AND JUNCTION BOXES		
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	SECTION - 8		
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FOREWORD

1. Overheads and Contractor's profit as mentioned in the Preamble for Buildings SOR 2018-19 (Civil & Electrical) is applicable to original Electrical works subject to the fulfillment of the conditions mentioned in para 3.0 of Preamble
2. Municipal Area Allowance, Agency or Tribal area allowance or any such allowance on the labour components is applicable to Electrical works as per the Para 4.0 (1) of Preamble
3. The Electrical contractor is solely responsible for both quality and quantity. Proposing specific make in the estimate from the SOR is within the scope of concerned field officers based on the necessity and availability of materials in such areas.
4. In case of 2way points i.e. stair case point etc where two way switch control is necessary, an extra at 50 % excess over each point shall be allowed.
5. Where ever the light/fan point is provided at a height/length of 15 feet and above, then an extra of 50% over the point rates shall be allowed.
6. The rates for common civil items including labour rates have to be adopted from prevailing SOR.
7. The rates for all types of electrical items proposed in SOR are exclusive of GST (basic rates).
8. The rates for items such as Lifts, Refrigerators / A.C. Chilled Water plants / Water coolers and Video and Audio Systems etc., have to be invariably followed based on the prevailing market rates, since the rates and specification varies from manufacturer to manufacturer considerably. Hence , rates for these items are not incorporated in the SOR. However, relevant data without rates is provided in the standard schedule data for electrical works. .
9. In case of any addition/alteration/rectification to the proposed SOR, the approval has to be obtained from the Chief Engineer R&B Electrical . Temporary approvals for materials which are under relevant specifications of the BIS and IEC can be given by the Superintending Engineer (R&B) Electrical, duly obtaining approval from the Chief Engineer (R&B) Electrical.
10. The Superintending Engineer (R&B) Electrical will review the performance over the quality of the makes proposed in the SOR from time to time and in case any inferior quality is observed the same shall be brought to the notice of the Chief Engineer (R&B) Electrical to consider for deletion from the SOR.
11. The schedule of rates is only for guidance of officers for preparation of estimates as per the Para 113 of APPWD code. The authority that sanctioned the estimate is however responsible for adopting the proper rates in the estimates as envisaged in para 45 of APPWD code.
12. As per GO Ms No.51 Industries and commerce (MSME) Dept Dt:01.06.2010, all the indenting departments / Agents should invariably give preference to all local MSME which are manufacturing quality products having ISO 9001 – 2000, DGS & D, BIS certification without entertaining any other dealers / branded product manufacturers who have no production base in Andhra Pradesh

Chief Engineer(R&B) Electrical

ELECTRICAL AND ELECTRO-MECHANICAL ITEMS

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		SECTION - 1		
	1.1	M.S. CONDUIT PIPES		
1	ELEC-1.1.1	Supply of ISI, outer dia, 16 guage thickness MS conduit pipe as per IS-9537 Part II Makes: NAI / Bharath / GB / AKG.		
	a	20 mm	1 RM	90
	b	25 mm	1 RM	110
	c	32 mm	1 RM	160
	d	38 mm	1 RM	270
	e	50 mm	1 RM	245
2	ELEC-1.1.2	Supply of MS Junction box normal range big size long neck.		
	a	19/20 mm	1 No	25
	b	25 mm	1 No	30
	c	32 mm	1 No	70
	d	40/38 mm	1 No	95
	e	50 mm	1 No	175
3	ELEC-1.1.3	Supply of .....MS Junction deep box.		
	a	20/25 mm	1 No	65
	b	32 mm	1 No	110
	c	40 mm	1 No	130
	d	50 mm	1 No	160
4	ELEC-1.1.4	Supply of MS Inspection Bends.		
	a	19/20 mm	1 No	22
	b	25 mm	1 No	25
	c	32 mm	1 No	55
	d	40/38 mm	1 No	80
	e	50 mm	1 No	150
5	ELEC-1.1.5	Supply of MS Inspection Tee.		
	a	19/20 mm	1 No	25
	b	25 mm	1 No	30
	c	32 mm	1 No	70

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	d	40/38 mm	1 No	85
	e	50 mm	1 No	165
6	ELEC-1.1.6	Supply of MS Inspection Elbow.		
	a	19/20 mm	1 No	22
	b	25 mm	1 No	30
	c	32 mm	1 No	55
	d	40/38 mm	1 No	70
	e	50 mm	1 No	150
7	ELEC-1.1.7	Supply of MS Inspection 10 Guage G.I. checknut of size		
	a	19/20 mm	100 Nos	200
	b	25 mm	100 Nos	250
	c	32 mm	100 Nos	500
	d	40/38 mm	100 Nos	725
	e	50 mm	100 Nos	1,210
8	ELEC-1.1.8	Supply of Saddles with Base.		
	a	19/20 mm	100 Nos	215
	b	25 mm	100 Nos	225
	c	32 mm	100 Nos	380
	d	40/38 mm	100 Nos	550
	e	50 mm	100 Nos	650
9	ELEC-1.1.9	Supply of .....20 guage Saddles.		
	a	19/20 mm	100 Nos	110
	b	25 mm	100 Nos	150
	c	32 mm	100 Nos	240
	d	40/38 mm	100 Nos	310
	e	50 mm	100 Nos	380
10	ELEC-1.1.10	Supply of 16 Guage socket coupler.		
	a	19/20 mm	12 Nos	60
	b	25 mm	12 Nos	80
	c	32 mm	12 Nos	130
	d	38 mm	12 Nos	170
	e	40mm	12 Nos	190
	f	50 mm	12 Nos	400
11	ELEC-1.1.11	Supply of 19mm Ball Socket.		
	a	19 mm	12 Nos	230
	b	25 mm	12 Nos	350

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	1.2	PVC CONDUIT PIPES		
12	ELEC-1.2.1	Supply of ISI outer dia heavy grade with IS:9537 part 3 FRLS regid PVC pipe Makes : Precision/Universal& Marudhar/VIP / GoldMedal / Million plast / GM / Sudhakar /Anchor/ Polyline/ Polycab/ Orbit/AKG		
	a	20 mm(2.10mm thickness)	1 RM	23
	b	25 mm(2.20mm thickness)	1 RM	30
13	ELEC-1.2.2	Supply of ISI outer dia medium grade with IS:9537 part 3 FRLS regid PVC pipe Makes : Precision/Universal& Marudhar/VIP / GoldMedal / Million plast / GM / Sudhakar /Anchor/ Polyline/ Polycab/Orbit/ AKG		
	a	20mm (1.55 mm thickness)	1 RM	18
	b	25mm (1.80 mm thickness)	1 RM	25
	c	32mm (2.10 mm thickness)	1 RM	39
	d	40mm (2.30 mm thickness)	1 RM	50
	e	50mm (2.85 mm thickness)	1 RM	72
	NOTE:Add 5% extra on above price for Red/Yellow/Blue/Black/Green Colour PVC pipes used for specific purpose			
14	ELEC-1.2.3	Supply of ISI width and 12.5mm height Casing and Caping. Makes: Precision/VIP / Modi/ GoldMedal / Million plast / GM / Sudhakar / Polyline/Orbit/Anchor		
	a	19/20 mm	1 RM	20
	b	25mm	1 RM	30
	c	32mm	1 RM	35
	d	38/40mm	1 RM	58
15	ELEC-1.2.4	Supply of FRPP corrugated Flexible conduit pipe. Make:Precision/ VIP / GoldMedal / Million plast / Sudhakar / Polyline /Anchor		
	a	19/20 mm	1 RM	12
	b	25mm	1 RM	15
	c	32mm	1 RM	24
	d	38/40mm	1 RM	33
	e	50 mm	1 RM	54
16	ELEC-1.2.5	Supply of PVC Flexible Couplings for FRPP Corrugated conduit pipe Makes:Precision/ VIP / GoldMedal / Million plast / Sudhakar / Polyline /Anchor		
	a	19/20 mm	1 No	10
	b	25mm	1 No	15

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	c	32mm	1 No	25
	d	40mm	1 No	30
	e	50 mm	1 No	55
17	ELEC-1.2.6	Supply of..... PVC Junction Boxes confirms to IS : 3419 Make : Precision/Universal& Marudhar/VIP / GoldMedal / Million plast / GM / Sudhakar / Polyline/ Polycab/ Orbit/Anchor		
	a	19/20 mm	1 No	17
	b	25mm	1 No	18
	c	32mm	1 No	32
	d	40mm	1 No	34
	e	50 mm	1 No	47
18	ELEC-1.2.7	Supply of .....PVC deep Junction Boxes confirms to IS : 3419. Make : Precision/Universal& Marudhar/VIP / GoldMedal / Million plast / GM / Sudhakar / Polyline/ Polycab /Orbit/Anchor		
	a	19/20 mm	1 No	21
	b	25mm	1 No	24
	c	32mm	1 No	37
	d	40/38 mm	1 No	40
	e	50 mm	1 No	58
19	ELEC-1.2.8	Supply of PVC Bends. Make : Precision/Universal& Marudhar/VIP / GoldMedal / Million plast / GM / Sudhakar / Polyline/ Polycab/ AKG/Orbit		
	a	19/20 mm dia 1.5mm thick	1 No	5
	b	25mm dia 1.5mm thick	1 No	7
	c	32mm dia 2.0mm thick	1 No	16
	d	40 mm dia 2.0mm thick	1 No	18
	e	50 mm dia 2.0mm thick	1 No	26
20	ELEC-1.2.9	Dummy Cover for PVC junction boxes	1 No	5
	1.3	METAL BOXES for switch boards		
21	ELEC-1.3.1	Supply of..... Hot Dip galvanized 20/18 SWG Module box with earthing terminal		
	a	1 or 2	1 No	54
	b	3	1 No	75
	c	4	1 No	90
	d	6	1 No	125
	e	8 or 9	1 No	160

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	f	12	1 No	195
		METALLIC BOXES		
22	ELEC-1.3.2	Supply of .....18 SWG sheet steel boxes duly finished with two coats of zinchromate redoxide		
	a	100mmx100x50mm	1 No	50
	b	175mmx100x60mm	1 No	60
	c	150mmx150x60mm	1 No	70
	d	200mmx150x60mm	1 No	80
	e	200mmx250x75mm	1 No	100
	f	250mmx300x75mm	1 No	175
	g	300mmx375x100mm		225
	1.4	T.W. BOARDS		
23	ELEC-1.4.1	Supply of T.W.Deep Box of Size		
	a	4" x 4"	1 No	10
	b	4" x 7	1 No	18
	c	6" x 6"	1 No	20
	d	6" x 8"	1 No	30
	e	8" x 10"	1 No	50
	f	10" x 12"	1 No	70
	g	12" x 15"	1 No	110
25	ELEC-1.4.2	Supply of Decolam Board of size		
	a	4" x 4"	1 No	15
	b	4" x 7	1 No	25
	c	6" x 6"	1 No	35
	d	6" x 8"	1 No	40
	e	8" x 10"	1 No	70
	f	10" x 12"	1 No	110
	g	12" x 15"	1 No	165
26	ELEC-1.4.3	Supply of Peeta Boards of size		
	a	9" x 14"	1 No	50
	b	12" x 10"	1 No	55
	c	15" x 20"	1 No	190
	d	18" x 24"	1 No	275
	e	18" x 30"	1 No	340
27	ELEC-1.4.4	Supply of No.8 Screws of		
	a	12mm.	100 Nos	60
	b	25mm.	100 Nos	75

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	c	30mm.	100 Nos	90
	d	35/38mm.	100 Nos	100
	e	50mm	100 Nos	116
	f	63/75mm.	100 Nos	140
	1.5	COPPER FLEXIBLE CABLES (AS PER IS:694)		
28	ELEC-1.5.1	Supply of FRLS / HFFR / ZHFR PVC insulated 1100V grade as per IS : 694 / 1990 specification for Copper cable. Makes: Finolex / RR kabel / Havells /KEI		
	a	14/0.3mm (1.0 Sqmm)	100 RM	1,000
	b	22/0.3mm (1.5 Sqmm)	100 RM	1,480
	c	36/0.3mm (2.5 Sqmm)	100 RM	2,390
	d	56/0.3mm (4.0 Sqmm)	100 RM	3,650
	e	84/0.3mm (6.0 Sqmm)	100 RM	5,545
	f	140/0.3mm (10.0 Sqmm)	100 RM	8,590
	i	126/0.4mm (16.0 Sqmm)	100 RM	13,590
29	ELEC-1.5.2	Supply of FRLS / HFFR / ZHFR PVC insulated 1100V grade as per IS : 694 / 1990 specification for Copper cable. Makes: Gloster/ Polycab / Bonton / V-Guard / GM / Million / HPL / Goldmedal / Finecab /Fortune Art / Kundan cab/Sudhakar/Orbit/Standard/Tamra/Anchor		
	a	14/0.3mm (1.0 Sqmm)	100 RM	880
	b	22/0.3mm (1.5 Sqmm)	100 RM	1,290
	c	36/0.3mm (2.5 Sqmm)	100 RM	2,090
	d	56/0.3mm (4.0 Sqmm)	100 RM	3,200
	e	84/0.3mm (6.0 Sqmm)	100 RM	4,995
	f	140/0.3mm (10.0 Sqmm)	100 RM	7,595
	i	126/0.4mm (16.0 Sqmm)	100 RM	12,590
30	ELEC-1.5.3	Supply of FRLS / ZHFR PVC insulated 1100V grade as per IS : 694 / 1990 specification for Copper cable. Makes: Nandicab / Star / Airson/ Benlo / Gemscab /Rajnigandha/Avocab/CRI/Salzer/ollvin		
	a	14/0.3mm (1.0 Sqmm)	100 RM	760
	b	22/0.3mm (1.5 Sqmm)	100 RM	1,095
	c	36/0.3mm (2.5 Sqmm)	100 RM	1,765
	d	56/0.3mm (4.0 Sqmm)	100 RM	2,650
	e	84/0.3mm (6.0 Sqmm)	100 RM	4,095
	f	140/0.3mm (10.0 Sqmm)	100 RM	6,495
	g	126/0.4mm (16.0 Sqmm)	100 RM	10,000
		SHEATHED FLEXIBLE CABLES		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
31	ELEC-1.5.4	Supply of .....PVC insulated and sheathed FRLS copper round cable for voltage up to 1100V as per IS 694/1990. Makes: Finolex / RR Kable / Havells/KEI/ Polycab/ Orbit/Gloster		
	a	2 core 1.5 Sqmm	1 RM	40
	b	2 core 2.5 Sqmm	1 RM	64
	c	2 core 4.0 Sqmm	1 RM	95
	d	3 core 1.5 Sqmm	1 RM	55
	e	3 core 2.5 Sqmm	1 RM	85
	f	3 core 4.0 Sqmm	1 RM	135
	i	4 core 1.5 Sqmm	1 RM	70
	j	4 core 2.5 Sqmm	1 RM	110
	k	4 core 4.0 Sqmm	1 RM	170
32	ELEC-1.5.5	Supply of .....PVC insulated and sheathed FRLS copper round cable for voltage up to 1100V as per IS 694/1990. Makes : Bonton / GM / Million / HPL / Goldmedal / Finecab /Fortune Art / Kundan cab/ Airson/CRI/ Tamra/ollvin/Avocab/Anchor		
	a	2 core 1.5 Sqmm	100 RM	35
	b	2 core 2.5 Sqmm	100 RM	50
	c	2 core 4.0 Sqmm	100 RM	80
	d	3 core 1.5 Sqmm	100 RM	45
	e	3 core 2.5 Sqmm	100 RM	70
	f	3 core 4.0 Sqmm	100 RM	110
	g	4 core 1.5 Sqmm	100 RM	55
	h	4 core 2.5 Sqmm	100 RM	90
	i	4 core 4.0 Sqmm	100 RM	135
33	ELEC-1.5.6	Supply of 23 / 0060 twin core twisted / flat heavy Copper wire. Makes: Finolex / Polycab / Havells / V-Guard / Gold Medal / GM / Million / Vimal /Airson/CRI/ Tamra/ ollvin/Avocab	100 RM	950
	1.6	SERVICE MAINS AND FLAT CABLE FOR SUBMERSIBLE MOTORS.		
34	ELEC-1.6.1	Supply of .....WPSC (Weather Proof Single Core) ISI Alluminium Wire. Makes: Gold Medal / Million / GM / Vimal / Finecab / Nakoda / Nanadicab / Payal / Sudhakar/ Rajnigandha/Airson/Orbit/ollvin		
	a	2.5 Sqmm	100 RM	690
	b	6 Sqmm	100 RM	1,375
	c	10 Sqmm	100 RM	1,500
	d	16 Sqmm	100 RM	2,500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
35	ELEC-1.6.2	Supply of .....WPTC (Weather Proof Twin Core) ISI Alluminium Wire. Makes: Gold Medal / Million / GM / Vimal / Finecab / Nakoda / Nanadicab / Payal / Sudhakar/ Rajnigandha/ airson/Orbit/ollvin/Avocab		
		6 Sqmm	100 RM	2,800
		10 Sqmm	100 RM	3,385
36	ELEC-1.6.3	Supply of 3 Core..... Flat Copper cable of ISI for Submersible Motors confirming to IS:694:1990. Makes: Finolex / Polycab / Havells / KEI/Gloster		
	a	1.5 Sqmm	1 RM	55
	b	2.5 Sqmm	1 RM	80
	c	4.0 Sqmm	1 RM	125
	d	6.0 Sqmm	1 RM	180
	e	10.0 Sqmm	1 RM	285
	f	16.0 Sqmm	1 RM	375
37	ELEC-1.6.4	Supply of 3 Core..... Flat Copper cable of ISI for Submersible Motors confirming to IS:694:1990. Makes: V-Guard / Gold Medal / GM / Million / Vimal /Finecab/Orbit/CRI/Tamra/Airson/Ollvin/Avocab/Anchor		
	a	1.5 Sqmm	1 RM	50
	b	2.5 Sqmm	1 RM	72
	c	4.0 Sqmm	1 RM	110
	d	6.0 Sqmm	1 RM	160
	e	10.0 Sqmm	1 RM	260
	f	16.0 Sqmm	1 RM	340
	1.7	FLUSH TYPE SWITCHES AND ACCESSORIES		
38	ELEC-1.7.1	Supply of Makes: GM G Home / Gold Medal Olive / Million Zoom / Great white Omega/Koncept/Vimal opel/Anchor		
	a	6A 1 Way flush type Swich.	1 No	15
	b	6A 2 Way flush type Swich.	1 No	19
	c	6A 2 pin flush type Socket.	1 No	18
	d	6A 3/2 pin flush type Socket with shutter.	1 No	24
	e	6A flush type Neon Indicator.	1 No	18
	f	6A Triangle Plug Top of	1 No	30
	g	1 Way flush type Bed Swich / Bell Push.	1 No	19
	h	16A flush type Swich.	1 No	60
	i	16A flush type Socket with shutter.	1 No	60
	j	16A flush type Switch Socket combined (2 in one).	1 No	90
	k	16A Triangle Plug Top	1 No	45

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	l	stepped type Electronic Regulator.	1 No	180
	m	3 Plate Jumbo Ceiling Rose.	1 No	19
	n	BH / SBH.	1 No	18
	o	Pendent Holder / Adopter.	1 No	15
	p	Telephone Jack with Connector.	1 No	45
	q	TV Antenna Outlet.	1 No	25
	r	15A/10A Flush type Fuse.	1 No	30
	s	32A DP Flush type.	1 No	95
	t	Calling Bell.	1 No	65
	u	Buzzer.	1 No	55
	v	Ding Dong Bell.	1 No	135
	w	Electronic Musical Bell.	1 No	220
	x	Remote Bell.	1 No	635
	y	MC Holder.	1 No	20
	z	Spike Guard with 1 No Switch and 4 Nos Sockets.	1 No	350
	A	Spike Guard with 4 No Switches and 4 Nos Sockets.	1 No	500
	1.8	MODULAR SWITCHES AND ACCESSORIES		
39	ELEC-1.8.1	Supply of Makes: Legrand Arteor / Schneider Zen celo/ Crabtree Murano or Amare/L&T-englaze/ GM-Zenova/Goldmedal(i-Push)		
	a	6A / 10A 1 Way 1 Module Modular Switch.	1 No	85
	b	6A / 10A 2 Way 1 Module Modular Switch.	1 No	95
	c	6A / 10A 2 Pin 2 Module Modular Socket.	1 No	85
	d	6A / 10A 3/2 Pin 2 Module Modular Socket with shutter.	1 No	130
	e	6A / 10A 1 Module Modular Switch with Neon Indicator.	1 No	105
	f	6A / 10A Modular Bell Push with Neon Indicator.	1 No	125
	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1 No	115
	h	16A / 20A 1 Way 1 Module Modular Switch.	1 No	115
	i	16A / 20A 2 Way 1 Module Modular Switch.	1 No	125
	j	20A 1 Way 1 Module Modular Switch with Indicator.	1 No	125
	k	20A Modular Socket with shutter.	1 No	175
	l	16A/6A 1 way Combi Socket Modular Socket with shutter	1 No	180
	m	16A Triangle Top.	1 No	145
	n	1 Module Modular type Electronic step type Fan Regulator.	1 No	360
	o	Modular socket type Telephone jack with Connector	1 No	90
	p	Modular co-Axial socket type TV Antenna outlet.	1 No	90
	q	Push type button motor starter for A.C Units	1 No	725

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
40	ELEC-1.8.2	Supply of Makes: Legrand Myrius / Crabtree verona / L&T/ HPL/ Schneider Livia/ GM- Zicono/ C&S/Goldmedal(Curve/Air) / Million Mway / Logus Platina/ Panasonic Vision / Salzer S90series/Precision/Koncept(Samrat/Qura)/Ploycab(Levana)/ Anchor-Roma/ Amron/IndoAsian/Pointer		
	a	6A / 10A 1 Way 1 Module Modular Switch.	1 No	55
	b	6A / 10A 2 Way 1 Module Modular Switch.	1 No	65
	c	6A / 10A 2 Pin 2 Module Modular Socket.	1 No	55
	d	6A / 10A 3/2 Pin 2 Module Modular Socket with shutter.	1 No	85
	e	6A / 10A 1 Module Modular Switch with Neon Indicator.	1 No	70
	f	6A / 10A Modular Bell Push with Neon Indicator.	1 No	80
	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1 No	75
	h	16A / 20A 1 Way 1 Module Modular Switch.	1 No	75
	i	16A / 20A 2 Way 1 Module Modular Switch.	1 No	85
	j	20A 1 Way 1 Module Modular Switch with Indicator.	1 No	80
	k	20A Modular Socket with shutter.	1 No	125
	l	16A/6A 1 way Combi Socket Modular Socket with shutter	1 No	125
	m	16A Triangle Top.	1 No	60
	n	1 Module Modular type Electronic step type Fan Regulator.	1 No	310
	o	Modular socket type Telephone jack with Connector	1 No	60
	p	Modular co-Axial socket type TV Antenna outlet.	1 No	60
	q	Push type button motor starter for A.C Units	1 No	675
		COVER FRAMES		
41	ELEC-1.8.3	Supply of Makes: Legrand Arteur / Schneider Zen celo/ Crabtree Murano or Amare/L&T-englaze/ GM-Zenova/Goldmedal(i-Push)		
	a	1 or 2 Modular Cover Frame.	1 No	60
	b	3 Modular Cover Frame.	1 No	70
	c	4 Modular Cover Frame.	1 No	80
	d	6 Modular Cover Frame .	1 No	120
	e	8 Modular Horizontal / Vertical Cover Frame.	1 No	155
	f	12 Modular Vertical Cover Frame.	1 No	190

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
42	ELEC-1.8.4	Supply of Makes: Legrand Myrius / Crabtree verona / L&T/ HPL/ Schneider Livia/ GM- Zicono/ C&S/Goldmedal(Curve/Air) / Million Mway / Logus Platina/ Panasonic Vision / Salzer S90series/Precision/Koncept(Samrat/Qura)/Ploycab(Levana)/ Anchor-Roma/ Amron/IndoAsian/Pointer		
	a	1 or 2 Modular Cover Frame.	1 No	50
	b	3 Modular Cover Frame.	1 No	60
	c	4 Modular Cover Frame.	1 No	70
	d	6 Modular Cover Frame .	1 No	100
	e	8 Modular Horizontal / Vertical Cover Frame.	1 No	125
	f	12 Modular Vertical Cover Frame.	1 No	150
		SECTION - 2		
	2.1	PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS (SDFU)		
43	ELEC-2.1.1	Supply of .....TPN Switch Disconnecter Fuse Unit aCubical type without fuses as per IS: 13947/IEC 60947-3 Makes: L&T / G E / C&S / ABB / SIEMENS		
	a	32A	1 No	1300
	b	63A	1 No	2220
	c	125A	1 No	5300
	d	200A	1 No	6950
	e	250A	1 No	8300
	f	400A	1 No	12800
	g	630A	1 No	21700
44	ELEC-2.1.2	Supply of TPN Switch Disconnecter Fuse Unit Cubical type without fuses as per IS: 13947/IEC 60947-3 Makes: Standard / Havells / HPL / Indo Asian / Benlo/Anchor		
	a	32A	1 No	1100
	b	63A	1 No	1630
	c	125A	1 No	3650
	d	200A	1 No	5500
	e	250A	1 No	6200
	f	400A	1 No	9500
	g	630A	1 No	15900
	2.2	ON LOAD CHANGEOVER SWITCHES (OPEN EXECUTION)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
45	ELEC-2.2.1	Supply of 4 Pole Change Over Switch on Load with open Execution as per IS:13947 Makes: Socomec / L & T / HPL / Havells/ C&S		
	a	63A	1 No	4100
	b	125A	1 No	7700
	c	200A	1 No	10300
	d	250A	1 No	14700
	e	400A	1 No	22200
	f	630A	1 No	26500
46	ELEC-2.2.2	Supply of 4 Pole Change Over Switch on Load with open Execution as per IS:13947 Makes: ABB / GE / Siemens / Indo Asian / Benlo/Standard		
	a	32 A	1 No	1500
	b	63A	1 No	3700
	c	125A	1 No	7300
	d	200A	1 No	9500
	e	250A	1 No	13500
	f	400A	1 No	20800
	g	630A	1 No	24500
	2.3	OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE		
47	ELEC-2.3.1	Supply of Off load Changeover Switch in sheet steel enclosure as per IS:13947 Makes: HPL / Havells / Standard / Indo Asian / C&S		
	a	32A 240V DP	1 No	1250
	b	63A 415V FP	1 No	4300
	c	100A 415V FP	1 No	6550
48	ELEC-2.3.2	Supply of Off load Changeover Switch in sheet steel enclosure as per IS:13947 Makes: Benlo / Million / GoldMedal / Vimal		
	a	32A 240V DP	1 No	725
	b	63A 415V FP	1 No	2500
	c	100A 415V FP	1 No	4700
	2.4	AUTO TRANSFER SWITCH		
49	ELEC-2.4.1	Supply of auto transfer switch for instantaneous switching between sources as per IEC 60947-6-1 Closed transition,(bare unit- without enclosure) with voltage surge suppressor,communication interface etc complete., makes: Socomec /Hager /ABB/ HPL/L&T/Havells		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	125A, 415VAC, FP	1 No	35000
	b	160A, 415VAC FP	1 No	36500
	c	200A 415VACFP	1 No	37500
	d	250A, 415VAC FP	1 No	47000
	e	315A, 415VAC FP	1 No	47500
	f	400A, 415VAC FP	1 No	59500
50	ELEC-2.4.2	Supply of .....auto transfer switch for instantaneous switching between sources as per IEC 60947-6-1 Closed transition,(bare unit- without enclosure) with voltage surge suppressor, communication interface etc complete makes: Socomec ATysP/ ABB/L&T		
	a	630A,415VAC FP	1 No	75500
	b	800A, 415VAC FP	1 No	100000
	c	1000A,415VAC FP	1 No	124000
	d	1250A, 415VAC FP	1 No	154000
	e	1600 A, 415VAC FP	1 No	191000
	f	2000 A, 415VAC FP	1 No	279000
	g	2500 A, 415VAC FP	1 No	308000
	h	3200 A, 415VAC FP	1 No	396000
	2.5	REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE		
51	ELEC-2.5.1	Supply of Rewirable Fuse Switch in SS enclosure as per IS:13947 Makes: HPL / Havells / Standard / Indo Asian		
	a	32A 240V SPN	1 No	850
	b	32A 415V TPN	1 No	1300
	c	63A 415V TPN	1 No	3200
	d	100A 415V TPN	1 No	5600
52	ELEC-2.5.2	Supply of Double Break Switch in SS enclosure without fuses as per IS:13947 Makes: HPL / Havells / Standard / Indo Asian		
	a	100A 415V TPN	1 No	5700
	b	200A 415V TPN	1 No	8200
53	ELEC-2.5.3	Supply of Rewirable Fuse Switch in SS enclosure as per IS:13947 Makes:Anchor / GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star/Kundan cab/Anchor.		
	a	32A 240V SPN	1 No	600
	b	32A 415V TPN	1 No	920
	c	63A 415V TPN	1 No	2200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	d	100A 415V TPN	1 No	4200
54	ELEC-2.5.4	Supply of .....Double Break Switch in SS enclosure without fuse as per IS:13947 Makes: Anchor / GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star/Kundan cab/Anchor.		
	a	100A 415V TPN	1 No	4300
	b	200A 415V TPN	1 No	7000
	2.6	HRC FUSE LINKS (DIN/BOLTED TYPE)		
55	ELEC-2.6.1	Supply of .....HRC Fuse Links as per IS 13703-Part 2/IEC 60269- Part 2 Makes: L & T / G E / C & S / Standard / HPL / Havells / Siemens / Indo Asian		
	a	6A to 35 A	1 No	200
	b	45A to 63A	1 No	230
	c	100 A to 160 A	1 No	265
	d	250A to 350A	1 No	600
	e	400A	1 No	665
	f	630A	1 No	
	2.7	PORCELAIN REWIRABLE FUSE UNITS.		
56	ELEC-2.7.1	Supply of Porcelain Rewirable Fuse Units. Makes: C&S/Standard/HPL/ Sputnik / Million / Gold Medal / Benlo /Anchor		
	a	32A 240V	1 No	100
	b	32A 415V	1 No	150
	c	63A 415V	1 No	250
	d	100A 415V	1 No	520
57	ELEC-2.7.2	Supply of..... Porcelain Rewirable Fuse Units with extension strip. Makes: C&S/Standard/HPL/ Sputnik / Million / Gold Medal / Benlo/Anchor		
	a	200A 415V	1 No	850
	b	300A 415V	1 No	100
	2.8	VOLTAGE SURGE PROTECTORS		
58	ELEC-2.8.1	Supply of Voltage Surge Protector. Makes: Legrand / Siemens / G.E / L&T / Hager/Havells		
	a	2 Pole 2 Module 40 KA 1.4 KV	1 No	7000
	b	4 Pole 4 Module 40 KA 1.4 KV	1 No	13125
	c	2 Pole 2 Module 15 KA 1.2 KV	1 No	5600
	d	4 Pole 4 Module 15 KA 1.2 KV	1 No	10500
	2.9	PANEL MOUNTING MCCBs		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
59	ELEC-2.9.1	Supply of, Adjustable, Confirms to IEC 60947-2 and IS 13947-Part 1&2 having Breaking Capacity with thermal magnetic release Panel Mounted. Makes: L&T- D shine / Schneider-NS NSX/Legrand -DP X3/ Siemens-3VL / Hager-h3/C&S -Winbreak2		
	a	63A / 60A 3 Pole MCCB,16 KA	1 No	6400
	b	63A / 60A 4 Pole MCCB,16 KA	1 No	6900
	c	125A 3 Pole MCCB,25 KA	1 No	7600
	d	125A 4 Pole MCCB,25 KA	1 No	8500
	e	160A 3 Pole MCCB,25 KA	1 No	9400
	f	160A 4 Pole MCCB,25 KA	1 No	12200
	g	250A 3 Pole MCCB,36/35 KA	1 No	15500
	h	250A 4 Pole MCCB,36/35 KA	1 No	20450
	i	400A 3 Pole MCCB,36/35 KA	1 No	21250
	j	400A 4 Pole MCCB,36/35 KA	1 No	25500
	k	630A 3 Pole MCCB,50 KA	1 No	30500
	l	630A 4 Pole MCCB,50 KA	1 No	37500
	m	800A 3 Pole MCCB,50 KA	1 No	46000
	n	800A 4 Pole MCCB,50 KA	1 No	58000
60	ELEC-2.9.2	Supply of, Adjustable, Confirms to IEC 60947-2 and IS 13947-Part 1&2 having Breaking Capacity with thermal magnetic release Panel Mounted. Makes: GE / ABB / Havells / HPL / Standard / Indo Asian/Anchor.		
	a	63A / 60A 3 Pole MCCB,16 KA	1 No	5700
	b	63A / 60A 4 Pole MCCB,16 KA	1 No	6200
	c	125A 3 Pole MCCB,25 KA	1 No	6800
	d	125A 4 Pole MCCB,25 KA	1 No	7600
	e	160A 3 Pole MCCB,25 KA	1 No	8400
	f	160A 4 Pole MCCB,25 KA	1 No	10900
	g	250A 3 Pole MCCB,36/35 KA	1 No	13900
	h	250A 4 Pole MCCB,36/35 KA	1 No	18400
	i	400A 3 Pole MCCB,36/35 KA	1 No	19100
	j	400A 4 Pole MCCB,36/35 KA	1 No	22900
	k	630A 3 Pole MCCB,50 KA	1 No	27400
	l	630A 4 Pole MCCB,50 KA	1 No	33700
	m	800A 3 Pole MCCB,50 KA	1 No	41000
	n	800A 4 Pole MCCB,50 KA	1 No	52000
		PANEL MOUNTING ACBs (Microprocessor Based)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
61	ELEC-2.9.3	Supply of Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection with display and 20 faults History backup. Makes: Siemens-3WLETU45B / L&T-U Power Omega(MTX3.5 EC) / Schneider -Master pact NW 6.0P /Legrand-DMX3/C&S Winmaster-2)		
	a	630A 3 Pole, 50kA Electrically fixed	1 No	105000
	b	630A 3 Pole, 50kA Electrically drawout	1 No	137000
	c	630A 4 Pole, 50kA Electrically fixed	1 No	127000
	d	630A 4 Pole, 50kA Electrically drawout	1 No	170000
	e	800A 3 Pole, 50kA Electrically drawout	1 No	145000
	f	800A 4 Pole, 50kA Electrically drawout	1 No	180000
	g	1000A 3 Pole, 50kA Electrically drawout	1 No	155000
	h	1000A 4 Pole, 50kA Electrically drawout	1 No	195000
	i	1250A 3 Pole, 50kA Electrically drawout	1 No	183000
	j	1250A 4 Pole, 50kA Electrically drawout	1 No	223000
	k	1600A 3 Pole, 50kA Electrically drawout	1 No	203000
	l	1600A 4 Pole, 50kA Electrically drawout	1 No	240000
	m	2000A 3 Pole, 75kA Electrically drawout	1 No	295000
	n	2000A 4 Pole, 75kA Electrically drawout	1 No	365000
	o	2500A 3 Pole, 75kA Electrically drawout	1 No	350000
	p	2500A 4 Pole, 75kA Electrically drawout	1 No	395000
	q	3200A 3 Pole, 75kA Electrically drawout	1 No	350000
	r	3200A 4 Pole, 75kA Electrically drawout	1 No	420000
62	ELEC-2.9.4	Supply of Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection Makes:ABB / HPL / GE / Indo Asian / Havells/Legrand-SP		
	a	630A 3 Pole, 50kA Electrically fixed	1 No	92000
	b	630A 3 Pole, 50kA Electrically drawout	1 No	120000
	c	630A 4 Pole, 50kA Electrically fixed	1 No	105000
	d	630A 4 Pole, 50kA Electrically drawout	1 No	145000
	e	800A 3 Pole, 50kA Electrically drawout	1 No	125000
	f	800A 4 Pole, 50kA Electrically drawout	1 No	160000
	d	1000A 3 Pole, 50kA Electrically drawout	1 No	140000
	f	1000A 4 Pole, 50kA Electrically drawout	1 No	160000
		AIR INSULATED BUS DUCT		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
63	ELEC-2.9.5	Supply, instalation, testing and commisioning of .....Amp, .....KA breaking capacity (100% Neutral busbar) air insulated compact Raising mains/Bus Duct system made of CRCA sheet/Hot Galvanized steel encloser of thickness not less than 0.8 mm having degree of protection of IP 55 as per IEC/EN 61439-6, PVC/Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinient sections including necessary end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc.,with necessary joints Fire barrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side0 including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required . Makes: Legrand (Zucchini) / C&S		
	a	400Amp, 50 - 53KA	RM	9200
	b	630Amp, 50 - 63KA	RM	11000
	c	800 Amp, 50 - 76KA	RM	12000
	d	1000 Amp, 50 - 76KA	RM	13755
	e	1250 Amp, 50 - 76KA	RM	14390
	f	1600 Amp, 50 - 76KA	RM	18070
64	ELEC-2.9.6	Supply and Fixing of Spring Bracket with fixing kit for Air Insulated Busduct / Raising Mains. Makes: Legrand (Zucchini) / C&S	1 No	5500
65	ELEC-2.9.7	Supply and Fixing of Amps Horizontal / Vertical bends for Air Insulated Bus Duct .Makes: Legrand (Zucchini) / C&S		
	a	400 Amps	1 No	10500
	b	630 Amps	1 No	12000
	c	800 Amps	1 No	12500
	d	1000Amps	1 No	14650
	e	1250 Amps	1 No	15835
	f	1600 Amps	1 No	17974
66	ELEC-2.9.8	Supply and Fixing of .....Amps Tap off box for Air Insulated Busduct. Makes: Legrand (Zucchini) / C&S		
	a	125A	1 No	12500
	b	250A	1 No	14500
	c	400A	1 No	21500
	d	630 A	1 No	23342
		SANDWITCH BUSDUCT		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
67	ELEC-2.9.10	Supply, instalation, testing and commisioning of .....Amp, .....KA breaking capacity (100% Neutral busbar) sandwich Busduct system made of CRCA sheet/Hot Galvanized steel encloser of thickness not less than 1.5mm having degree of protection of IP 55/IP 65 as per IEC/EN 61439-6, PVC/Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinient sections including end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc., with necessary joints Fire barrrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side) including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required .Makes: Legrand (Zucchini) / L&T / Schneider/C&S		
	a	630Amp, 36/40	RM	11300
	b	800Amp, 42/50KA	RM	12650
	c	1000Amp, 50KA	RM	13950
	d	1250 Amp,75kA	RM	14500
	e	1600 Amp,80 kA	RM	18250
	f	2000 Amp ,80kA	RM	22300
	g	2500 Amp ,150 kA	RM	32000
	h	3200 Amp,160kA	RM	37000
	i	4000 Amp,160kA	RM	49500
68	ELEC-2.9.11	Supply and Fixing of .....Amps Horizontal / Vertical bends for sandwich Bus Duct .Makes: Legrand (Zucchini) / L&T / Schiender / C&S		
	a	630A	1 No	11500
	b	800A	1 No	12400
	c	1000A	1 No	13000
	d	1250 A	1 No	14000
	e	1600 A	1 No	16000
	f	2000 A	1 No	18600
	g	2500 A	1 No	23500
	h	3200 A	1 No	28500
	i	4000 A	1 No	32000
69	ELEC-2.9.12	Supply and Fixing of Amps Copper Flexibles for three phases and neutral for Air Insulated / sandwich Busduct . Makes: Legrand (Zucchini) / L&T / Schiender /C&S		
	a	400A	1 No	24500
	b	630A	1 No	26000
	c	800A	1 No	28260
	d	1000A	1 No	29750

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	e	1250 A	1 No	31500
	f	1600 A	1 No	34000
	g	2000 A	1 No	37000
	h	2500 A	1 No	42000
	i	3200 A	1 No	45000
	j	4000 A	1 No	48000
69	ELEC-2.9.13	Supply and fixing of Flange end for .....Amps for Air insulated Busdusts . Makes: Legrand (Zucchini) / Schiender /C&S		
	a	400A	1 No	9500
	b	630A	1 No	13000
	c	800A	1 No	16000
70	ELEC-2.9.14	Supply and fixing of Flange end for .....Amps for Sandwich Busdusts . Makes: Legrand (Zucchini) / L&T / Schiender /C&S		
	a	400A	1 No	11500
	b	630A	1 No	15350
	c	800A	1 No	19100
	d	1000 A	1 No	20100
	e	1250 A	1 No	13900
	f	1600 A	1 No	15700
	g	2000 A	1 No	24450
	h	2500 A	1 No	41300
	i	3200 A	1 No	45200
	j	4000 A	1 No	47500
71	ELEC-2.9.15	Supply and Fixing of .....Amps Tap off box for Sandwich Busduct. Makes: Legrand (Zucchini) / L&T / Schiender /C&S		
	a	160A	1 No	15800
	b	250A	1 No	26500
	c	400A	1 No	33500
	d	630A	1 No	48650
	e	800A	1 No	73000
	2.1	MCBs (AS PER IS:60898-1:2002)		
72	ELEC-2.10.1	Supply of ,..... 10KA C/D Curve ISI Mark. Makes: Legrand-DX3 / Schneider-Acti9/Hager-h3/ Siemens-5SX4/ Crabtree-Xpro/L&T-AU		
	a	6-32A SP MCB	1 No	180
	b	40-63A SP MCB	1 No	385

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	c	6-32A DP MCB	1 No	550
	d	40-63A DP MCB	1 No	875
	e	6-32A TP MCB	1 No	875
	f	40-63A TP MCB	1 No	1400
	g	6-32A FP MCB	1 No	1200
	h	40-63A FP MCB	1 No	1750
73	ELEC-2.10.2	Supply of ,..... 10KA C/D Curve ISI Mark. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S /L&T-Exora/ GM /Gold Medal/Anchor/Salzer		
	a	6-32A SP MCB	1 No	155
	b	40-63A SP MCB	1 No	330
	c	6-32A DP MCB	1 No	465
	d	40-63A DP MCB	1 No	690
	e	6-32A TP MCB	1 No	720
	f	40-63A TP MCB	1 No	1125
	g	6-32A FP MCB	1 No	980
	h	40-63A FP MCB	1 No	1400
74	ELEC-2.10.3	Supply of 6-32A 10KA SP MCB, C/D Curve ISI Mark. Makes: Milltec / Sputnik / Benlo / Vimal/Polycab /Precision/Amron.		
	a	6-32A SP MCB	1 No	140
	b	40-63A SP MCB	1 No	290
	c	6-32A DP MCB	1 No	420
	d	40-63A DP MCB	1 No	620
	e	6-32A TP MCB	1 No	650
	f	40-63A TP MCB	1 No	1000
	g	6-32A FP MCB	1 No	885
	h	40-63A FP MCB	1 No	1250
	2.11	ISOLATORS CONFIRMS TO I E C 60947 PART-III		
75	ELEC-2.11.1	Supply of Isolator. Makes:Legrand-DX3 / Schneider-Acti9/Hager-h3/ Siemens-5SX4/ Crabtree-Xpro/L&T-AU		
	a	32A DP	1 No	310
	b	40A DP	1 No	340
	c	63A DP	1 No	450
	d	40A TP	1 No	580
	e	63A TP	1 No	680
	f	40A FP	1 No	760

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	g	63A FP	1 No	850
	h	100A FP	1 No	900
76	ELEC-2.11.2	Supply of Isolator. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S /L&T-Exora/ GM /Gold Medal/Anchor/Salzer		
	a	32A DP	1 No	300
	b	40A DP	1 No	315
	c	63A DP	1 No	380
	d	40A TP	1 No	540
	e	63A TP	1 No	550
	f	40A FP	1 No	630
	g	63A FP	1 No	675
	h	100A FP	1 No	825
77	ELEC-2.11.3	Supply of..... Isolator. Makes: Milltec / Sputnik / Benlo / Vimal/Polycab/ Precision/Amron.		
	a	32A DP	1 No	200
	b	40A DP	1 No	240
	c	63A DP	1 No	325
	d	40A TP	1 No	350
	e	63A TP	1 No	400
	f	40A FP	1 No	540
	2.12	RCCBs(ELCB/RCD) CONFIRMS TO IEC:61008 AND IS:12640-1		
78	ELEC-2.12.1	Supply of RCCB for earth leakage protection. Makes: Legrand-DX3 / Schneider-Acti9/Hager-h3/ Siemens-5SX4/ Crabtree-Xpro/L&T-AU		
	a	40A 2 Pole,30mA	1 No	2550
	b	40A 2 Pole,100mA	1 No	2700
	c	40A 4 Pole30mA	1 No	2800
	d	40A 4 Pole ,100mA	1 No	2950
	e	63A 2 Pole,30mA,	1 No	3150
	f	63A 2 Pole,100mA	1 No	3250
	g	63A 4 Pole,30mA	1 No	3350
	h	63A 4 Pole,100mA	1 No	3600
79	ELEC-2.12.2	Supply of RCCB for earth leakage protection. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S /L&T-Exora/ GM /Gold Medal/Anchor/Salzer		
	a	40A 2 Pole,30mA	1 No	2150

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	40A 2 Pole,100mA	1 No	2300
	c	40A 4 Pole30mA	1 No	2380
	d	40A 4 Pole ,100mA	1 No	2500
	e	63A 2 Pole,30mA,	1 No	2675
	f	63A 2 Pole,100mA	1 No	2750
	g	63A 4 Pole,30mA	1 No	2850
	h	63A 4 Pole,100mA	1 No	3000
		RCBO CONFIRMS TO IEC:61009-1		
80	ELEC-2.12.3	Supply of .....RCBO for over load, short-circuit and earth leakage protection. Makes: Legrand-DX3 / Schneider-Acti9/Hager-h3/ Siemens-5SX4/ Crabtree-Xpro/L&T-AU		
	a	40A 2 Pole,30mA	1 No	4750
	b	40A 2 Pole,100mA	1 No	5200
	c	40A 4 Pole30mA	1 No	5400
	d	40A 4 Pole ,100mA	1 No	5750
	e	63A 2 Pole,30mA,	1 No	5700
	f	63A 2 Pole,100mA	1 No	6050
	g	63A 4 Pole,30mA	1 No	6400
	h	63A 4 Pole,100mA	1 No	6500
	2.13	MCB DISTRIBUTION BOARDS (AS PER IS 8623; IS 13032; IEC 61439-3)		
		SPN DBs		
81	ELEC-2.13.1	Supply of .....Protection suitable for S.P out goings and for 1 No Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. Makes: Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-Newrange .		
	a	6 Way SPN DB with IP 30 , 4Nos	1 No	875
	b	8 Way SPN DB with IP 30, 8 Nos	1 No	950
	c	12 Way SPN DB with IP 30, 12 Nos	1 No	1150
	d	6 Way SPN DB with IP 43, 4 Nos	1 No	1200
	e	8 Way SPN DB with IP 43, 8 Nos	1 No	1300
	f	12 Way SPN DB with IP 43, 12 Nos	1 No	1575
82	ELEC-2.13.2	Supply of .....Protection suitable for S.P out goings and for 1 No Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . . Makes: ABB/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S / L&T/GM /Gold Medal/Anchor/Salzer		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	6 Way SPN DB with IP 30 , 4Nos	1 No	750
	b	8 Way SPN DB with IP 30, 8 Nos	1 No	800
	c	12 Way SPN DB with IP 30, 12 Nos	1 No	1000
	d	6 Way SPN DB with IP 43, 4 Nos	1 No	1050
	e	8 Way SPN DB with IP 43, 8 Nos	1 No	1150
	f	12 Way SPN DB with IP 43, 12 Nos	1 No	1350
83	ELEC-2.13.3	Supply of .....Protection suitable for S.P out goings and for 1 No Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . . Makes: Milltec / Sputnik / Benlo / Vimal/ Polycab/Precision/ Amron.		
	a	6 Way SPN DB with IP 30 , 4Nos	1 No	650
	b	8 Way SPN DB with IP 30, 8 Nos	1 No	700
	c	12 Way SPN DB with IP 30, 12 Nos	1 No	875
	d	6 Way SPN DB with IP 43, 4 Nos	1 No	940
	e	8 Way SPN DB with IP 43, 8 Nos	1 No	1000
	f	12 Way SPN DB with IP 43, 12 Nos	1 No	1200
		TPN DBs		
84	ELEC-2.13.4	Supply of Protection suitable for .....S.P. out goings and for 1 No 4 pole Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-Newrange .		
	a	(8 +12) 4 Way TPN DB Horizontal with IP 30, 12 Nos	1 No	1700
	b	(8 +18) 6 Way TPN DB Horizontal with IP 30, 18 Nos	1 No	2400
	c	(8 +12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1 No	2500
	d	(8 +18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1 No	3500
	e	(8 +24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1 No	3900
85	ELEC-2.13.5	Supply of Protection suitable for .....S.P. out goings and for 1 No 4 pole Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: ABB/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S / L&T/GM /Gold Medal/Anchor/Salzer		
	a	(8 +12) 4 Way TPN DB Horizontal with IP 30, 12 Nos	1 No	1530
	b	(8 +18) 6 Way TPN DB Horizontal with IP 30, 18 Nos	1 No	2150
	c	(8 +12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1 No	2250
	d	(8 +18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1 No	3150
	e	(8 +24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1 No	3500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
86	ELEC-2.13.6	Supply of Protection suitable for S.P. out goings and for 1 No 4 pole Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: Milltec /Benlo / Vimal /Precision/Amron		
	a	(8 +12) 4 Way TPN DB Horizontal with IP 30, 12 Nos	1 No	1400
	b	(8 +18) 6 Way TPN DB Horizontal with IP 30, 18 Nos	1 No	1900
	c	(8 +12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1 No	2100
	d	(8 +18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1 No	2700
	e	(8 +24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1 No	3000
		VTPN DBs		
87	ELEC-2.13.7	Supply of Protection suitable for TP/SP out goings and for 1 No 4 pole Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-Newrange .		
	a	4 Way VTPN DB with IP 43	1 No	6300
	b	6 Way VTPN DB with IP 43	1 No	7300
	c	8 Way VTPN DB with IP 43	1 No	8100
88	ELEC-2.13.8	Supply of 7 Segment DB with IP 42 Protection with provision for FPMCB / Isolator / RCCB / RCBO as incomer, 3Nos DPMCB / Isolator / RCCB / RCBO as sub incomer and .....Nos SPMCB's as out going as per IS 8623; IS 13032; IEC 61439-3. . Makes: Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-Newrange .		
	a	4 Way TPN DB, 12 Nos	1 No	7150
	b	8 Way TPN DB, 24 Nos	1 No	8150
89	ELEC-2.13.9	Supply of .....suitable for accomodating 125A / 160A 4 Pole MCCB as incomer and TP/SP MCBs as outgoing etc., as per IS 8623; IS 13032; IEC 61439-3. Makes: Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-AU		
	a	4 Way VTPN DB with IP 43 Protection.	1 No	8200
	b	8 Way VTPN DB with IP 43 Protection.	1 No	10300
90	ELEC-2.13.10	Supply of Protection suitable for TP/SP out goings and for 1 No 4 pole Incommer etc complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: ABB/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S / L&T/GM /Gold Medal/Anchor/Salzer		
	a	4 Way VTPN DB with IP 43	1 No	5600
	b	6 Way VTPN DB with IP 43	1 No	6500
	c	8 Way VTPN DB with IP 43	1 No	7200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
91	ELEC-2.13.11	Supply of 7 Segment with IP 42 Protection with provision for FPMCB / Isolator / RCCB / RCBO as incomer, 3Nos DPMCB / Isolator / RCCB / RCBO as sub incomer and .....Nos SPMCB's as out going. etc.,as per IS 8623; IS 13032; IEC 61439-3. Makes: Siemens / ABB / Standard / Havells / HPL / Hager/ Indo Asian / C&S/L&T/Anchor..		
	a	4 Way TPN DB,12 Nos	1 No	6400
	b	8 Way TPN DB,24 Nos	1 No	7300
92	ELEC-2.13.12	Supply of .....suitable for accomodating 125A / 160A 4 Pole MCCB as incomer and TP/SP MCBs as outgoing etc., as per IS 8623; IS 13032; IEC 61439-3. Makes: ABB/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S / L&T/GM /Gold Medal/Anchor/Salzer		
	a	4 Way VTPN DB with IP 43 Protection.	1 No	7300
	b	8 Way VTPN DB with IP 43 Protection.	1 No	9200
93	ELEC-2.13.13	Supply of Plug and Socket in SS enclosure. Makes:Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-Newrange .		
	a	20A SP	1 No	940
	b	20A TP	1 No	1775
	c	32A TP	1 No	2100
94	ELEC-2.13.14	Supply of Plug and Socket in SS enclosures as per IS 8623; IS 13032; IEC 61439-3. . Makes: ABB/Standard / Havells-euro II / HPL (Techno) / Indo Asian / C&S / L&T/GM /Gold Medal/Anchor/Salzer		
	a	20A SP	1 No	750
	b	20A TP	1 No	1250
	c	32A TP	1 No	1700
95	ELEC-2.13.15	Supply of 20A SP Plug and Socket in SS enclosure etc., as per IS 8623; IS 13032; IEC 61439-3. . Makes: Milltec / Sputnik / Benlo / Vimal/Amron.		
	a	20A SP	1 No	600
	b	20A TP	1 No	1000
	c	32A TP	1 No	1400
96	ELEC-2.13.16	Supply of Enclosure with IP 20 Protection etc., complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: Legrand(Ekinox 3) / Schneider-Acti9/Hager - Novello+/ Seimens/Crabtree Xpro classique-II/L&T-Newrange .		
	a	SP	1 No	250
	b	DP/TP/FP	1 No	350

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
97	ELEC-2.13.17	Supply of Enclosure with IP 20 Protection etc complete as per IS 8623; IS 13032; IEC 61439-3. . Makes: Siemens / ABB / Standard / Havells / HPL / Hager/ Indo Asian / C&S /L&T/ GM /Anchor/Gold Medal		
	a	SP	1 No	230
	b	DP/TP/FP	1 No	330
98	ELEC-2.13.18	Supply of Enclosure with IP 20 Protection. Makes: Milltec / Sputnik / Benlo / Vimal/Amron.		
	a	SP	1 No	210
	b	DP/TP/FP	1 No	310
		SECTION - 3		
	3.1	STREET LIGHT LUMINAIRES		
99	ELEC-3.1.1	Supply of fluorescent street light luminaire with sheet aluminium housing and UV stabilised acrylic cover with Electronic ballast and all standard accessories etc. Makes: Phillips / Crompton / Bajaj / HPL/Surya		
		1 x 36/40 W	1 No	1150
100	ELEC-3.1.2	Supply of fluorescent street light luminaire with sheet aluminium housing and UV stabilised acrylic cover with Electronic ballast and all standard accessories etc. Makes: Style lamp / Mahita Electro / Capart / RK / Prolite/Kiran		
		1 x 36/40 W	1 No	800
101	ELEC-3.1.3	Supply of Street light luminaire integral with pressure diecast aluminium housing having pot optics with IP66 protection with all standard accessories etc. Makes: Phillips / Crompton / Bajaj / Surya / Venture / Halonix		
	a	70W SV / MH	1 No	2600
	b	150W SV / MH	1 No	3800
	c	250W SV / MH	1 No	4200
102	ELEC-3.1.4	Supply of .....Street light luminaire integral with pressure diecast aluminium housing having pot optics with IP66 protection with all standard accessories etc. Makes: Style lamp / Mahita Electro / Capart / RK / Prolite/Kiran		
	a	70W SV / MH	1 No	2200
	b	150W SV / MH	1 No	3200
	c	250W SV / MH	1 No	3700
103	ELEC-3.1.5	Supply of Flood light luminaire with Non - integral weather proof diecast aluminium housing with IP65 / IP66 protection with Control Gear Box without lamp. Makes: Wipro / G.E. / Phillips / Bajaj / Crompton / Surya / Venture		
	a	1 x 400W MH	1 No	5400

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	2 x 400W MH	1 No	8500
104	ELEC-3.1.6	Supply of Flood light luminaire with Non - integral weather proof diecast alluminium housing with IP65 / IP66 protection with Control Gear Box without lamp. Makes: Style lamp / Mahita Electro / Capart / RK / Prolite/Kiran		
	a	1 x 400W MH	1 No	4500
	b	2 x 400W MH	1 No	7000
105	ELEC-3.1.7	Supply of Hallozen Flood light luminaire with cast alluminium housing and tough end glass cover with all standard accessories. Makes: Wipro / G.E. / Phillips / Bajaj / Crompton / Surya / Venture/HPL		
	a	500W	1 No	550
	b	1000W	1 No	990
106	ELEC-3.1.8	Supply of Hallozen Flood light luminaire with cast alluminium housing and tough end glass cover with all standard accessories. Makes: Style lamp / Mahita Electro / Capart / RK / Prolite		
	a	500W	1 No	450
	b	1000W	1 No	850
	3.2	LED POST TOP LANTERN LUMINAIRES		
107	ELEC-3.2.1	Supply and Transportation of 40W LED Post top lantern made with cast Alluminium with decorative opel polycarbonate diffuser with IP 65 protection etc., complete with all accessories Makes: Crompton LPTO-40-CDL-M/ Bajaj Celesta BGCL 40 W LED Wh/Wipro LP 02 or equivalent in Phillips/Keselec/Havells	1 No	8500
108	ELEC-3.2.2	Supply and Transportation of 35 W Post Top lantern made with high Pressure die cast alluminium bodywith polycarbonate / high impact acrylic protector for optimal luminous flux ,IP66 suitable for vertical mounting of 60 mm dia.the luminaire shall have CCT 3000-4000K with internal surge protection of 4KV and External Surge Protection of 10 KV ,Pf>0.95 etc., complete Make: Keselec NENA or equivalen in Ligman/Philips/Havells	1 No	21200
109	ELEC-3.2.3	Supply and Transportation of 40/50 W Post Top lantern made with high Pressure die cast alluminium bodywith polycarbonate / high impact acrylic protector for optimal luminous flux ,IP66 suitable for vertical mounting of 60 mm dia.the luminaire shall have CCT 3000-4000K with internal surge protection of 4KV and External Surge Protection of 10 KV ,Pf>0.95 etc., complete Make: Keselec SOFIA/Wipro LP 05 or equivalent in Ligman/Philips/Havells	1 No	27200
	3.3	ACCESSORIES FOR MV / SV / MH LUMINAIRES		
		COPPER BALLASTS		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
110	ELEC-3.3.1	Supply of copper ballast. Makes: Phillips / Bajaj / Crompton / Havells / Surya / Venture / halonix/HPL		
	a	70 W SV / MH	1 No	600
	b	150 W SV / MH	1 No	850
	c	250 W SV / MH	1 No	1300
	d	400 W SV / MH	1 No	1900
111	ELEC-3.3.2	Supply of 70 W SV / MH copper ballast. Makes:Style lamp/ Mahita Electro / Capart / RK / Prolite		
	a	70 W SV / MH	1 No	475
	b	150 W SV / MH	1 No	690
	c	250 W SV / MH	1 No	1000
	d	400 W SV / MH	1 No	1300
		IGNITOR		
112	ELEC-3.3.3	Supply of Ignitor for SV / MH Lamp. Makes: Wipro / G.E. / Phillips / Crompton / Bajaj / Surya / HPL / Havells / Venture / Capart	1 No	150
		HPF CAPACITORS		
113	ELEC-3.3.4	Supply of HPF Capacitor. Makes: TIBCON / Phillips / Crompton / Bajaj / Surya / Havells.		
	a	4 mfd	1 No	90
	b	10 mfd	1 No	150
	c	15 mfd	1 No	175
	d	20 mfd	1 No	240
	e	33 mfd	1 No	350
	f	42 mfd	1 No	400
	3.4	LAMPS		
114	ELEC-3.4.1	Supply of Lamp with ISI mark. Makes: Phillips / Osram / Crompton / Bajaj / Surya / Venture / Halonix/HPL.		
	a	500W Hallozen	1 No	90
	b	1000W Hallozen	1 No	110
	c	70W SV	1 No	400
	d	150W SV	1 No	600
	e	250W SV	1 No	675
	f	70W MH	1 No	750
	g	150W MH	1 No	800
	h	250W MH	1 No	1100

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	i	400W MH	1 No	1300
115	ELEC-3.4.2	Supply of Lamp with ISI mark. Makes: Style Lamp / Mahita Electro / Capart		
	a	500W Hallozen	1 No	60
	b	1000W Hallozen	1 No	90
	c	70W SV	1 No	320
	d	150W SV	1 No	575
	e	250W SV	1 No	625
	f	70W MH	1 No	725
	g	150W MH	1 No	775
	h	250W MH	1 No	990
	i	400W MH	1 No	1150
	3.5	AUTOMATIC STREET LIGHT CONTROL SYSTEMS		
116	ELEC-3.5.1	Supply of Automatic Street Light Control System with Optical Micro Sensor, Low volatage / High voltage trip and reset, operating voltage 150 - 280V AC, 50 HZ with suitable SMC enclosure of IP 54 protection, MCBs and contactor suitable to control the load of of single phase load with necessary clamping arrangements. Make: Swadeep Nature Switch / Lightmate/ L&T/Havells		
	a	1 KW	1 No	8500
	b	3 KW	1 No	10750
	c	5 KW	1 No	11200
	d	8 KW	1 No	12800
117	ELEC-3.5.2	Supply of Automatic Street Light Control System with Optical Micro Sensor, Low volatage / High voltage trip and reset, operating voltage 150 - 280V AC per Phase, 50 HZ with suitable SMC enclosure of IP 54 protection, MCBs and contactor suitable to control the load of of Three phase load with necessary clamping arrangements. Make: Swadeep Nature Switch / Light Mate / L&T/Havells		
	a	5 KW	1 No	14000
	b	8 KW	1 No	14600
	c	12 KW	1 No	17600
	d	25KW	1 No	28000
	e	50KW	1 No	39000
	3.6	INTERNAL LUMINAIRES		
118	ELEC-3.6.1	Supply of Box type tube light luminaire powder coated CRCA sheet steel housing with Electronic Ballast Chokes and all standard accessories. Makes: Wipro / G.E. / Phillips / Crompton / Bajaj/Havells/HPL/Halonix		
	a	1 x 36/40W	1 No	720

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	2 x 36/40W	1 No	1000
119	ELEC-3.6.2	Supply of Box type tube light luminaire powder coated CRCA sheet steel housing with Electronic Ballast Chokes and all standard accessories. Makes: Surya / Havells / Fortune Art/Kiran	1 No	
	a	1 x 36/40W	1 No	650
	b	2 x 36/40W	1 No	950
120	ELEC-3.6.3	Supply of 1 x 36/40W Patty type tube light luminaire powder coated CRCA sheet steel housing with Copper Chokes and all standard accessories. Makes: Crompton / Bajaj /Halonix/ Surya / RK / Million / Gold Medal	1 No	225
		ACCESSORIES		
121	ELEC-3.6.4	Supply of 9/13W VPIT Ballast for CFL with ISI mark. Makes: Crompton / Bajaj / Halonix/Surya / RK / Style Lamp/HPL	1 No	105
122	ELEC-3.6.5	Supply of 18W VPIT Ballast for CFL with ISI mark. Makes: Crompton / Bajaj /Halonix/ Surya / RK / Style Lamp /HPL	1 No	110
123	ELEC-3.6.6	Supply of 20W Copper Wound Ballast Makes: Crompton / Bajaj / Halonix/ Surya / RK / Style Lamp / Million / Gold Medal/HPL	1 No	110
124	ELEC-3.6.7	Supply of 40W Copper Wound Ballast. Makes: Crompton / Bajaj / Halonix/ Surya / RK / Style Lamp / Million / Gold Medal/HPL	1 No	135
125	ELEC-3.6.8	Supply of 36/40W VPIT Ballast. Makes: Crompton / Bajaj /Halonix/ Surya / RK / Style Lamp / Million / Gold Medal	1 No	150
126	ELEC-3.6.9	Supply of 40W Starter. Makes: Crompton / Bajaj / Halonix/ Surya / RK / Style Lamp / Million / Gold Medal	1 No	8
127	ELEC-3.6.10	Supply of Rotor holder(FTL). Makes: Phillips / Crompton / Bajaj / Halonix/ Surya	1 No	15
128	ELEC-3.6.11	Supply of FTL Starter holder. Makes: Phillips / Crompton / Bajaj /Halonix/ Surya	1 No	15
	3.7	FLOURSCENT TUBES / CFL LAMPS / LED BULBS		
129	ELEC-3.7.1	Supply of 40W-60W Lamp. Makes: Phillips / Crompton / Bajaj / Surya / Havells / Style Lamp / Capart	1 No	12
130	ELEC-3.7.2	Supply of 18/20W fluorescent tube. Makes: Phillips / Crompton / Bajaj / Surya / Style Lamp / Capart	1 No	40
131	ELEC-3.7.3	Supply of 36/40W fluorescent tube. Makes: Phillips / Crompton / Bajaj / Surya / Style Lamp / Capart	1 No	40

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
132	ELEC-3.7.4	Supply of Pin type CFL Lamp. Makes: Wipro / G.E. / Phillips / Crompton / Bajaj / Havells / Surya / HPL / Halonix.		
	a	9W	1 No	60
	b	11W	1 No	70
	c	13W	1 No	90
	d	18W	1 No	95
	e	36W	1 No	125
		LED BULBS		
133	ELEC-3.7.5	Supply of Lamp with input voltage 90 to 300V, Colour temperature 3000k - 6500k, Beam angle 170 - 220 degrees, B22 base, . Makes: Phillips /Crompton / Bajaj / Havells / Halonix/GM/HPL		
	a	0.5W LED	1 No	55
	b	3.0W LED	1 No	120
	c	5.0W LED	1 No	150
	d	7.0W LED	1 No	175
134	ELEC-3.7.6	Supply of Lamp with input voltage 90 to 300V, Colour temperature 3000k - 6500k, Beam angle 170 - 220 degrees, B22 base, Makes: Syska / Green Lites / Fortune Art / GoldMedal / VIN		
	a	0.5W LED	1 No	50
	b	3.0W LED	1 No	115
	c	5.0W LED	1 No	145
	d	7.0W LED	1 No	170
135	ELEC-3.7.7	Supply of 3W to 5W 3000K, AC 160-260V, LED Candel Lamp for shandliers. Makes: Phillips /Crompton / Bajaj / Havells / Halonix /GM	1 No	230
136	ELEC-3.7.8	Supply of 3W to 5W 3000K, AC 160-260V, LED Candel Lamp for shandliers. Makes: Syska / Green Lites / Fortune Art / HPL / GoldMedal	1 No	210
	3.8	LED LUMINAIRES INDOOR		
		DOWN LIGHTERS		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
137	ELEC-3.8.1	Supply and fixing of..... heavy duty LED Down lighter, suitable for Recessed mounting made of diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10% with high power LED's having efficacy of > 120 lumens / watt, CCT: 3000K - 5700K, minimum CRI > 70, Luminaire performance complies to IS 10322 (Part 5 / Sec-3) etc., complete a) LUMINAIRE MAKE : Phillips /Lighting Technologies(LT) / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.		
	a	6W	1 No	750
	b	9W	1 No	950
	c	12W	1 No	1375
	d	15W	1 No	1475
	e	18W	1 No	1575
138	ELEC-3.8.2	Supply and fixing of heavy duty LED Down lighter, suitable for Recessed / Surface mounting made of diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10% with high power LED's having efficacy of > 120 lumens / watt, CCT: 3000K - 5700K, minimum CRI > 70, Luminaire performance complies to IS 10322 (Part 5 / Sec-3) etc., complete Makes : Surya /C&S/ Fortune Art / Syska / GreenLites / Gold Medal / Enrich / Capart / Pharox / Stanjo / Goldwyn/VIN/Ib LED/Promtec/Eveready/Oppl b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT / San'an		
	a	6W	1 No	700
	b	9W	1 No	890
	c	12W	1 No	1290
	d	15W	1 No	1385
	e	18W	1 No	1480

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
139	ELEC-3.8.3	Supply and fixing of..... heavy duty LED Down lighter, suitable for Recessed / Surface mounting made of diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10% with high power LED's having efficacy of > 120 lumens / watt, CCT: 3000K - 5700K, minimum CRI > 70, Luminaire performance complies to IS 10322 (Part 5 / Sec-3) etc., complete a) LUMINAIRE MAKE : Pasolite / Cosmo / Polycab / Siger/Koncept/Kiran/Vibrant b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an	1 No	
	a	6W	1 No	660
	b	9W	1 No	835
	c	12W	1 No	1210
	d	15W	1 No	1295
	e	18W	1 No	1385
		LED PANEL LIGHTS		
140	ELEC-3.8.4	Supply and fixing of..... LED Slim Panel Round /Square suitable for Recessed / Surface mounting made of diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10%, with high power LED's having efficacy of > 120 lumens/watt,CCT: 3000K - 5700K, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Phillips /Lighting Technologies(LT) / GE-Venture / Crompton / Wipro / Bajaj / Havells /Halonix/Jaquar/HPL b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.	1 No	
	a	3W	1 No	325
	b	6W	1 No	525
	c	12W	1 No	850
	d	15W	1 No	1150
	e	18W	1 No	1175
	f	24W	1 No	1650
	g	36W/40W (600mm x 600mm) square type	1 No	3750

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
141	ELEC-3.8.5	Supply and fixing of LED Slim Panel Round / Square suitable for Recessed / Surface mounting made of diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10%, with high power LED's having efficacy of > 120 lumens/watt, CCT: 3000K - 5700K, minimum CRI>70, .etc., complete Makes : VIN/Surya / Fortune Art / Syska / GM / Green Lites / Gold Medal / C&S / Pharox / Anchor Panasonic / Stanjo/lb LED/Promtec/Eveready/Enrich/Oppl b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an		
	a	3W	1 No	305
	b	6W	1 No	490
	c	12W	1 No	800
	d	15W	1 No	1080
	e	18W	1 No	1100
	f	24W	1 No	1550
	g	36W/40W (600mm x 600mm) square type	1 No	3500
142	ELEC-3.8.6	Supply and fixing of..... LED Slim Panel Round / Square suitable for Recessed / Surface mounting made of diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10%, with high power LED's having efficacy of > 120 lumens/watt, CCT: 3000K - 5700K, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Pasolite / Cosmo / Polycab / Trinic/ SIEGER /kashyap / Nandicab/Koncept/ Kiran/Vibrant b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an	1 No	
	a	3W	1 No	285
	b	6W	1 No	460
	c	12W	1 No	750
	d	15W	1 No	1010
	e	18W	1 No	1035
	f	24W	1 No	1450
		COB DOWN LIGHTS		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
143	ELEC-3.8.7	Supply and fixing of..... LED COB Down lighter, suitable for Recessed mounting made of pressure diecast aluminium housing with powder coating, with high efficiency reflector , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10% with high power LED's having efficacy of > 120 lumens/watt,CCT: 3000K - 5700K, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Phillips / Lighting Technologies(LT) / GE-Venture / Crompton / Bajaj / Havells /Halonix/Jaquar/GM/HPL b) LED MAKE : Bridge Lux / LUMILEDS / CREE / NICHIA / Epistar/ Sunpo		
	a	9 / 10 W	1 No	1500
	b	15 / 16 W	1 No	1900
	c	18 / 20 W	1 No	2100
	d	30 W	1 No	3300
	f	45 W	1 No	3600
144	ELEC-3.8.8	Supply and fixing of LED COB Down lighter, suitable for Recessed mounting made of pressurediecast aluminium housing with powder coating, with high efficiency reflector , operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10% with high power LED's having efficacy of > 120 lumens / watt, CCT: 3000K - 5700K, minimum CRI>70, etc., complete Makes : VIN/Surya / Fortune Art / Syska / GreenLites / Gold Medal / Pharox / Stanjo/ Ib LED/ Promtec/Eveready/Enrich/Oppl b) LED MAKE : Bridge Lux / LUMILEDS / CREE / NICHIA / Epistar/ Sunpo		
	a	9 / 10 W	1 No	1425
	b	15/ 16W	1 No	1750
	c	18 / 20W	1 No	2000
	d	30W	1 No	3150
		SPOT LIGHTS / WALL WASHERS		
145	ELEC-3.9.9	Supply and Transportation of LED COB Spot Light, suitable for Recessed mounting made of diecast aluminium body with powder coating, with Driver, operating voltage range of 150 to 265 Volts AC, CCT: 3000K - 5700K, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Phillips / GE / Crompton /Bajaj / Havells / VIN/Halonix/Jaquar /GM/HPL b) LED MAKE : Bridge Lux / LUMILEDS / CREE / NICHIA / Epistar/ Sunpo		
	a	2/3 W	1 No	450
	b	5/6 W	1 No	550
	c	7 W	1 No	1050

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
146	ELEC-3.8.10	Supply and fixing of LED COB Spot Light, suitable for Recessed mounting made of diecast alluminium body with powder coating, with Driver, operating voltage range of 150 to 265 Volts AC, CCT: 3000K - 5700K, minimum CRI>70, .etc., complete Makes: Surya / Fortune Art /Syska / GM / GreenLites / Gold Medal / Pharox / Kashyap / Stanjo/Koncept/lb LED/Promtec/Eveready/ Enrich/Oppl b) LED MAKE : Bridge Lux / LUMILEDS / CREE / NICHIA / / SAMSUNG/ Sunpo		
	a	2/3 W	1 No	400
	b	5/6 W	1 No	500
	c	7 W	1 No	1000
147	ELEC-3.8.11	Supply and fixing of..... LED single colour Wall washer, 1000mm length, IP65, made of diecast alluminium body with powder coating, with Driver, operating voltage range of 150 to 265 Volts AC, CCT: 3000-4000K , beam angle 25/45 degrees, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Phillips /Lighting Technologies(LT) / GE-Venture / Crompton / Wipro /Bajaj / Havells / VIN /Halonix/Jaquar b) LED MAKE :Bridge Lux / LUMILEDS / CREE / NICHIA / Epistar.		
	a	18W	1 No	4100
	b	24W	1 No	4800
148	ELEC-3.8.12	Supply and fixing of..... LED single colour Wall washer, 1000mm length, IP67, made of diecast alluminium body with powder coating, with Driver, operating voltage range of 150 to 265 Volts AC, CCT: 3000-4000K , beam angle 15/25/45/60 degrees, minimum CRI>70, .etc., complete Makes: Makes:HPL/Surya / Fortune Art / Syska /GreenLites / Pharox /Stanjo/lb LED/Promtec/Eveready.. b) LED MAKE : Bridge Lux/ CREE / NICHIA / Epistar		
	a	18W	1 No	3800
	b	24W	1 No	4650
		LED BATTENS AND 2' x 2' LUMINARIES		
149	ELEC-3.8.13	Supply and fixing of 18W/20W, 1200mm length LED batten light with extruded alluminium housing and polycarbonate cover, input voltage AC 220 - 260 Volts with PF>0.9, Surge protection: 2KV,THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI>70, .etc., complete. Makes: Wipro / Phillips /Lighting Technologies(LT) / GE-Venture / Crompton / Bajaj / VIN /Halonix/Jaquar/HPL/Havells/GM b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.	1 No	850

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
150	ELEC-3.8.14	Supply and fixing of 18W/20W, 1200mm length LED batten light with extruded aluminium housing and polycarbonate cover, input voltage AC 220 - 260 Volts with PF>0.9, Surge protection: 2KV,THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI>70, .etc., complete. Makes: Makes: Surya / Pharox/ C&S / Greenlites / Fortune Art / Capart / Ib LED/Promtec/Eveready / Goldmedal / Syska /Stanjo/ Enrich/Opple b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an	1 No	750
151	ELEC-3.8.15	Supply and fixing of 18W/20W, 1200mm length LED batten light with extruded aluminium housing and polycarbonate cover, input voltage AC 220 - 260 Volts with PF>0.9, Surge protection: 2KV,THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI>70, .etc., complete. Makes: Prolite / Pasolite/Slieger/Koncept/Vibrant b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an	1 No	600
152	ELEC-3.8.16	Supply and fixing of 20W, T8,1200mm length LED retrofit tube light, input voltage AC 220 - 260 Volts with PF>0.9, Surge protection: 2KV,THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI>70, .etc., complete as per IS 10322 (Part 5/ Sec 1)..2012 Makes: Wipro / Phillips / GE-Venture / Crompton / Bajaj /Halonix/Jaquar/HPL b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.	1 No	750
153	ELEC-3.8.17	Supply and fixing of 20W, T8,1200mm length LED retrofit tube light, input voltage AC 220 - 260 Volts with PF>0.9, Surge protection: 2KV,THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI>70, .etc., complete as per IS 10322 (Part 5/ Sec 1)..2012 Makes: VIN/Surya / Pharox /Greenlites/ Fortune Art / Capart / GM / Goldmedal / Syska / Cosmo / Sieger/Ib LED/Promtec/Eveready/Stanjo/Enrich/Opple b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an	1 No	650
154	ELEC-3.8.18	Supply of 1200 mm length,Box type powder coated tube light luminaire with necessary wiring suitable for fixing 2 Nos retrofit T8 LED tubes but without tube and choke Makes: Phillips / Crompton / Bajaj/Surya/Havells/HPL	1 No	290
155	ELEC-3.8.19	Supply of 1200 mm length,Box type powder coated tube light luminaire with necessary wiring suitable for fixing 1 No retrofit T8 LED tube but without tube and choke Makes: Greenlites / Fortune Art / Capart / GM / Goldmedal /Trinic/Kiran.	1 No	250

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
156	ELEC-3.8.20	Supply, transportation and fixing of Recessed / Surface mounting 2' x 2' (600x600 mm) LED luminaire made of CRCA sheet housing with powder coated with acrylic diffuser, Constant current Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , With System lumen output \geq 3200lm operating voltage range of 150 to 265 Volts AC, P.F > 0.9, Surge protection: 2KV, THD<10%, with high power LED's having efficacy of > 120 lumens / watt, CCT: 3000K - 5700K, minimum CRI>70, .etc.,, complete. a) LUMINAIRE MAKE : Phillips /Lighting Technologies(LT) / GE-Venture / Crompton / Wipro / Bajaj / Havells / VIN /Halonix/Jaquar/HPL b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.		
	a	36 W	1 No	3600
	b	45 W	1 No	3900
157	ELEC-3.8.21	Supply, transportation and fixing of Recessed / Surface mounting 2' x 2' ' (600x600 mm)LED luminaire made of CRCA sheet housing with powder coated with acrylic diffuser, Constant current out put of Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 operating voltage range of 150 to 265 Volts AC, Power factor > 0.9 high power LEDs having efficacy of > 120 lumens/watt, junction temperature less than 85 degrees centigrade and THD is less than 10% etc., complete Makes: Surya / Pharox / Greenlites / Fortune Art / Capart / GM / Goldmedal / Syska / Cosmo / Ib LED/Promtec/Eveready/Sieger/Vibrant/Enrich/Stanjo/ Oppl b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT.		
	a	36 W	1 No	3400
	b	45 W	1 No	3700
	ELEC-3.8.22	Supply of 10W LED Bulk head fitting with Pressure die cast alluminum with opal diffuser with IP 65 Protection etc., complete., Makes : Philips/Bajaj / Crompton / Surya / Havells / Greenlites/ Insta Power/HPL /Halonix.	1 No	1100
		LED STREET LIGHTS		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
158	ELEC-3.8.23	Supply and transportation of LED Street light Luminaire made of pressure diecast aluminium body with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's having System efficacy > 110 lm/W and junction temperature < 70°C, with Ingress protection IP66, Luminaire performance complies to IS 10322 (Part 5 / Sec-3), Driver surge protection 4KV, external Surge protection 10 KV with optics distribution, THD<10% at 110 Volts AC, driver efficiency >90%, CCT: 3000K - 5700K, minimum CRI>70, etc., complete a) LUMINAIRE MAKE : Wipro / Philips (Green line) / GE-Venture / Crompton(Hawk) / Bajaj (Edge+) / Halonix(Lumos - Super) / Havells (Endura Pearl) /Capart(Premium)/Keselec/HPL/Jaquar b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG		
	a	20W	1 No	2200
	b	30W	1 No	3400
	c	45W	1 No	5200
	d	60W	1 No	6700
159	ELEC-3.8.24	Supply and transportation of LED Street light Luminaire made of pressure diecast aluminium body with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's System efficacy >110 lm/W and junction temperature < 70°C, with Ingress protection IP66, Luminaire performance complies to IS 10322 (Part 5 / Sec-3), Driver surge protection 4KV, external Surge protection 10 KV with optics distribution, THD<10% at 110 Volts AC, driver efficiency >90%, CCT: 3000K - 5700K, minimum CRI>70, etc., complete . a) Luminaire Make : Wipro / Philips (Greenline Extra) / GE-Venture / Crompton(Hawk-II) / Bajaj (Edge+) / Halonix (Modular/ Lumos-Super) / Havells (Endura City liner Neo) /Capart(Premium) /Keselec / HPL/Jaquar b) LED MAKE :PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG.		
	a	90W	1 No	11500
	b	120W	1 No	13500
	c	150W	1 No	15500
	d	180W	1 No	17500
	e	210W	1 No	21500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
160	ELEC-3.8.25	Supply and transportation of .....LED Street light Luminaire made of pressure diecast aluminium body with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's System efficacy >100lm/W and junction temperature < 70°C, with Ingress protection IP65, Luminaire performance complies to IS 10322 (Part 5 / Sec-3), Driver surge protection 4KV, external Surge protection ≥ 10KV with optics distribution, THD<10% at 110 Volts AC, driver efficiency >90%, CCT: 3000K - 5700K, minimum CRI>70, etc., complete, a) LUMINAIRE Makes: Surya / Fortune Art / Syska / VIN / GM / GreenLites /C&S/ Gold Medal /Pharox / Cosmo / Enrich / Renesola / Stanjo / Goldwyn/ Ib LED/Promtec/Eveready b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / LG.		
	a	20W	1 No	2100
	b	30W	1 No	3200
	c	45W	1 No	4900
	d	60W	1 No	6300
	e	90W	1 No	11000
	f	120W	1 No	12500
	g	150W	1 No	14000
	h	180W	1 No	16000
	i	210W	1 No	19500
161	ELEC-3.8.26	Supply and transportation of LED Street light Luminaire made of pressure diecast aluminium body with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's having System efficacy >90 lm/W and junction temperature < 70°C, with Ingress protection IP66, Luminaire performance complies to IS 10322 (Part 5 / Sec-3), Driver surge protection 4KV, external Surge protection ≥ 10KV with optics distribution Type II medium, THD<10% at 110 Volts AC, driver efficiency >90%, w, CCT: 3000K - 5700K, minimum CRI>70, etc., complete a) LUMINAIRE Makes : Trinic / Pasolite / Prolite / Sieger/Koncept/Vibrant b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / LG.		
	a	20W	1 No	1950
	b	30W	1 No	3000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	c	45W	1 No	4500
	d	60W	1 No	5900
	e	90W	1 No	9400
	f	120W	1 No	10500
		FLOOD LIGHTS		
162	ELEC-3.8.27	Supply and transportation of LED Flood light Luminaire made of pressure diecast aluminium housing with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's System efficacy >100lm/W and junction temperature < 70°C, with Ingress protection IP66, Luminaire performance complies to IS 10322 (Part 5 / Sec-3), IK05, Driver surge protection 4KV, external Surge protection ≥ 10KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, , CCT: 3000K - 5700K, minimum CRI>70, etc., complete a) LUMINAIRE MAKE : Wipro / Philips/ GE-Venture / Crompton/ Bajaj / VIN / Havells/Capart(Premium) /Halonix/Keselec/HPL/Jaquar b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.		
	a	50/60W	1 No	6500
	b	90/100W	1 No	11500
	c	120W	1 No	14900
	d	150W	1 No	17500
	e	200W	1 No	21000
	f	250W	1 No	24500
	g	300 W	1 No	29000
	h	400W	1 No	33500
163	ELEC-3.8.28	Supply and transportation of LED Flood light Luminaire made of pressure diecast aluminium housing with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's System efficacy >100lm/W and junction temperature < 70°C, with Ingress protection IP66, Luminaire performance complies to IS 10322 (Part 5 / Sec-3), IK05, Driver surge protection 4KV, external Surge protection ≥ 10KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, , CCT: 3000K - 5700K, minimum CRI>70, etc., complete a) LUMINAIRE Makes: Surya / Pharox / Greenlites / Fortune Art / GM / Goldmedal / Syska / C&S/Cosmo/ Ib LED/Promtec/ Eveready/ Vibrant/ Stanjo/Enrich b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / LG		
	a	50/60W	1 No	5800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	90/100W	1 No	10500
	c	120W	1 No	13500
	d	150W	1 No	16000
	e	200W	1 No	19000
	f	250W	1 No	23000
	g	300 W	1 No	27000
		400 W	1 No	32000
		HIGH BAY LIGHTS		
164	ELEC-3.8.29	Supply and transportation of LED High Bay Luminaire with high power COB LED made of pressure diecast aluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's having efficacy >100 lumens/watt, System efficacy >95lm/W and junction temperature < 70°C, with Ingress protection IP66, IK05, Driver surge protection 4KV, external Surge protection ≥ 5KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, , CCT: 3000K - 5700K, minimum CRI>70, etc., complete a) LUMINAIRE MAKE : Wipro / Philips/ GE / Lighting Technologies(LT) / Crompton/ Bajaj / VIN / Havells/Capart(Premium)/Halonix/Jaquar/Keselec/HPL b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG .		
	a	60W	1 No	8500
	b	90W	1 No	11000
	c	120W	1 No	12500
	d	150W	1 No	14500
165	ELEC-3.8.30	Supply and transportation of LED High Bay Luminaire with high power COB LED made of pressure diecast aluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's having efficacy >100 lumens/watt, System efficacy >95lm/W and junction temperature < 70°C, with Ingress protection IP65, IK05, Driver surge protection 4KV, external Surge protection ≥ 5KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, , CCT: 3000K - 5700K, minimum CRI>70, etc., complete a) LUMINAIRE Makes: Surya / Pharox / Greenlites / Fortune Art / Syska / Cosmo /C&S/Ib LED/Promtec/ Eveready/Stanjo/Vibrant/Enrich b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG.		
	a	60W	1 No	8000
	b	90W	1 No	9800
	c	120W	1 No	11500
	d	150W	1 No	13500
		LED DRIVERS		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
166	ELEC-3.8.31	Supply and transportation of LED Driver as per IS 15885 (Part 2 / Sec 13)..2012 with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for LED indoor luminaire, with 2 Years Warranty. Makes: Philips /Crompton / Bajaj/ Havells/Surya/Greenlites/HPL/Halonix/Jaquar/lb LED/Promtec/Eveready		
	a	6/9 W	1 No	225
	b	12/15/18/20 W	1 No	325
	c	36 W	1 No	475
	d	40/45 W	1 No	575
167	ELEC-3.8.32	Supply and transportation of LED Driver as per IS 15885 (Part 2 / Sec 13)..2012 with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for LED street light fitting with 2 Years Warranty. Makes: Philips /Crompton / Bajaj/ Havells/Surya/Greenlites/HPL/Halonix/Jaquar/lb LED/ Promtec/Eveready/Stanjo		
	a	15-30 W	1 No	350
	b	45-90 W	1 No	800
	c	120-180 W	1 No	1400
		SECTION - 4		
	4.1	U.G. CABLES		
168	ELEC-4.1.1	Supply and transportation of following XLPE insulated, 1100V grade armoured alluminium cable as per specification confirming to IS:7098 (Part - I)/1554-I		
		Makes: Torent / Universal / Unicab / Havells / KEI / Gloster / Polycab		
	a	4 sqmm X2 core	1 RM	90
	b	6 sqmm X2 core	1 RM	105
	c	10 sqmm X2 core	1 RM	125
	d	6 SqmmX 4 core	1 RM	125
	e	10SqmmX 4 core	1 RM	140
	f	16 SqmmX 4 core	1 RM	155
	g	25 SqmmX 3.5 core	1 RM	200
	h	35SqmmX 3.5 core	1 RM	235
	i	50 SqmmX 3.5 core	1 RM	310
	j	70 SqmmX 3.5 core	1 RM	400
	k	95 SqmmX 3.5 core	1 RM	510
	l	120 SqmmX 3.5 core	1 RM	615
	m	150 SqmmX 3.5 core	1 RM	720
	n	185 SqmmX 3.5 core	1 RM	875

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	o	240 SqmmX 3.5 core	1 RM	1100
	p	300SqmmX 3.5 core	1 RM	1330
	q	400SqmmX 3.5 core	1 RM	1700
169	ELEC - 4.1.2	Supply and transportation of following XLPE insulated, 1100V grade armoured alluminium cable as per specification confirming to IS:7098 (Part - I)/1554-I		
		Makes: RPG / Finolex / Finecab / Paragon / V-Guard / Fortune Art / Suncab / Delton / Payal / Gemscab/ Orbit/Avocab.		
	a	4 sqmm X2 core	1 RM	75
	b	6 sqmm X2 core	1 RM	85
	c	10 sqmm X2 core	1 RM	105
	d	6 SqmmX 4 core	1 RM	105
	e	10SqmmX 4 core	1 RM	120
	f	16 SqmmX 4 core	1 RM	135
	g	25 SqmmX 3.5 core	1 RM	170
	h	35SqmmX 3.5 core	1 RM	200
	i	50 SqmmX 3.5 core	1 RM	265
	j	70 SqmmX 3.5 core	1 RM	340
	k	95 SqmmX 3.5 core	1 RM	445
	l	120 SqmmX 3.5 core	1 RM	550
	m	150 SqmmX 3.5 core	1 RM	630
	n	185 SqmmX 3.5 core	1 RM	750
	o	240 SqmmX 3.5 core	1 RM	950
	p	300SqmmX 3.5 core	1 RM	1150
	q	400SqmmX 3.5 core	1 RM	1520
170	ELEC-4.1.3	Supply and Transportation of XLPE insulated IS:7098/II/85 H.T.cable for working voltage 33 K.V.Earthed with Stranded Compacted Circular Aluminium Conductor Screened with Extruded Semi-conducting compound, XLPE Insulated Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST- 2 Outer Sheathed cable etc complete Make: Torrent / Universal / Unicab / Havells / KEI		
	a	3C X 95 Sqmm	1 RM	1400
	b	3C X 120 Sqmm	1 RM	1550
	c	3C X 150 Sqmm	1 RM	1700
	d	3C X 185 Sqmm	1 RM	1850
	e	3C X 240 Sqmm	1 RM	2150
	f	3C X 300 Sqmm	1 RM	2350

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	g	3C X 400 Sqmm	1 RM	2700
171	ELEC- 4.1.4	Supply and Transportation of XLPE insulated IS:7098/II/85 H.T.cable for working voltage 11 K.V Earthed with Stranded Compacted Circular Aluminium Conductor Screened with Extruded Semi-conducting compound, XLPE Insulated Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST- 2 Outer Sheathed cable etc complete Make: Torrent / Universal / Unicab / Havells / KEI /Polycab/Gloster		
	a	3C X 35 Sqmm	1 RM	575
	b	3C X 50 Sqmm	1 RM	650
	c	3C X 70 Sqmm	1 RM	750
	d	3C X 95 Sqmm	1 RM	890
	e	3C X 120 Sqmm	1 RM	1000
	f	3C X 150 Sqmm	1 RM	1150
	g	3C X 185 Sqmm	1 RM	1350
	h	3C X 240 Sqmm	1 RM	1550
	i	3C X 300 Sqmm	1 RM	1750
	j	3C X 400 Sqmm	1 RM	2200
172	ELEC-4.1.5	Supply and Transportation of XLPE/PVC insulated & PVC sheathed unarmoured control cables of 1.1 KV grade with copper conductor as per IS 7098 Part-I -1988 etc complete Make: Torrent / Universal / Unicab / Havells / KEI /Polycab/Gloster/orbit		
	a	2C x 1.5 sq.mm	1 RM	85
	b	3C x 1.5 sq.mm	1 RM	90
	c	4C x 1.5 sq.mm	1 RM	105
	d	5C x 1.5 sq.mm	1 RM	110
	e	6C x 1.5 sq.mm	1 RM	125
	f	8C x 1.5 sq.mm	1 RM	145
	g	10C x 1.5 sq.mm	1 RM	180
	h	12C x 1.5 sq.mm	1 RM	200
	i	14C x 1.5 sq.mm	1 RM	225
	j	19C x 1.5 sq.mm	1 RM	282
	k	2C x 2.5 sq.mm	1 RM	95
	l	3C x 2.5 sq.mm	1 RM	110
	m	4C x 2.5 sq.mm	1 RM	130
	n	5C x 2.5 sq.mm	1 RM	145
	o	6C x 2.5 sq.mm	1 RM	200
	p	8C x 2.5 sq.mm	1 RM	240

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	q	10C x 2.5 sq.mm	1 RM	275
	r	12C x 2.5 sq.mm	1 RM	310
	s	14C x 2.5 sq.mm	1 RM	350
	t	19C x 2.5 sq.mm	1 RM	406
173	ELEC-4.1.6	Supply and Transportation of XLPE/PVC insulated & PVC sheathed armoured cables of 1.1 KV grade with copper conductor as per IS 7098 Part-I -1988 etc complete Make: Torrent / Universal / Unicab / Havells / KEI / Polycab/Gloster/Orbit/Avocab		
	a	2Cx1.5 sq.mm	1 RM	90
	b	2Cx2.5 sq.mm	1 RM	95
	c	2C x 4 sq.mm	1 RM	120
	d	2C x 6 sq.mm	1 RM	170
	e	2C x 10 sq.mm	1 RM	240
	f	2C x 16 sq.mm	1 RM	330
	g	3C x 4 sq.mm	1 RM	150
	h	3C x 6 sq.mm	1 RM	200
	i	3C x 10 sq.mm	1 RM	250
	j	3C x 16 sq.mm	1 RM	350
	k	4C x 4 sq.mm	1 RM	210
	l	4C x 6 sq.mm	1 RM	300
	m	4C x 10 sq.mm	1 RM	450
	n	4C x 16 sq.mm	1 RM	750
	o	4C x 25 sq.mm	1 RM	1200
	p	4C x 35 sq.mm	1 RM	1600
	q	4C x 50 sq.mm	1 RM	2300
	r	4C x 70 sq.mm	1 RM	3500
		CABLE TERMINATIONS AND ACCESSORIES		
174	ELEC-4.1.7	Supply and Making heat shrinkable type indoor/ outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 33 KV cable, with required components, prepration of cable ends, testing etc. as required of following sizes. Makes: Raychem /M seal/ Denson/ Multy/ Transeal-Hongshang		
		INDOOR		
	a	3 Core 95/120/150/185 sq mm	Set	11500
	b	3 core 240/300/400 sqmm	Set	16000
		OUTDOOR		
	c	3 Core 95/120/150/185 sq mm	Set	16000
	d	3 core 240/300/400 sqmm	Set	22500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		STRAIGHT THROUGH		
	e	3 Core 95/120/150/185 sq mm	Set	32500
	f	3 core 240/300/400 sqmm	Set	47500
175	ELEC-4.1.8	Supply and Making heat shrinkable type indoor /outdoor/straight through terminations joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends, testing etc. as required of following sizes. Makes: Raychem /M seal/ Denson/ Multy/ Transeal- Hongshang		
		INDOOR		
	a	3 core 35/50 sqmm	Set	5000
	b	3 core 70/95 sqmm	Set	7500
	c	3 core 120/150/185 sqmm	Set	8500
	d	3 core 240/300 sqmm	Set	8900
	e	3 core 400/500 sqmm	Set	9400
		OUTDOOR		
	f	3 core 35/50 sqmm	Set	8500
	g	3 core 70/95 sqmm	Set	10500
	h	3 core 120/150/185 sqmm	Set	11500
	i	3 core 240/300 sqmm	Set	12500
	j	3 core400/500 sqmm	Set	14000
		STRAIGHT THROUGH		
	k	3 core 35/50 sqmm	Set	13500
	l	3 core 70/95 sqmm	Set	16000
	m	3 core 120/150/185 sqmm	Set	18500
	n	3 core 240/300 sqmm	Set	20000
176	ELEC-4.1.9	Supply & Making heat shrinkable outdoor straight through joint for following size of PVC/ XLPE insulated aluminium conductor cable of 1.1 KV grade including cost of compound, sleeves etc. as required.Makes: Raychem /M seal/ Denson/ Multy/ Transeal- Hongshang		
	a	3.5core x 25/35/50 sq.mm	Set	1500
	b	3.5 corex 70/95/120 sq.mm	Set	2400
	c	3.5 corex 150/185/240 sq.mm	Set	3500
	d	3.5core x 300/400 sq.mm	Set	5500
	e	4 corex 6/10/16 sq.mm	Set	800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
177	ELEC-4.1.10	Supply and making one end termination with heavy duty double compression brass gland as per BS 6121:2005 ,IP 66 complete, SIBG type, heavy duty Alluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size. Makes:Dowels/Comet/SMI		
	a	3.5core x 25 sq.mm	Set	225
	b	3.5core x 35 sq.mm	Set	300
	c	3.5 corex 50 sq.mm	Set	350
	d	3.5core x 70 sq.mm	Set	520
	e	3.5core x 95 sq.mm	Set	595
	f	3.5core x 120 sq.mm	Set	750
	g	3.5core x 150 sq.mm	Set	900
	h	3.5core x 185 sq.mm	Set	1000
	i	3.5core x 240sq.mm	Set	1500
	j	3.5core x 300 sq.mm	Set	1800
	k	3.5core x 400 sq.mm	Set	2400
	l	4 core x 6/10/16 sq.mm	Set	230
178	ELEC-4.1.11	Supply and making one end termination with heavy duty single compression brass gland as per BS 6121:2005 ,IP 66 complete, SIBG type, heavy duty Alluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size.Makes:Dowels/Comet/SMI		
	a	2 coreX4/6/10 sqmm	Set	65
	b	4 coreX6/10/16 Sqmm	Set	85
	c	3.5 coreX25 Sqmm	Set	100
	d	3.5 coreX 35Sqmm	Set	150
	e	3.5 coreX50 Sqmm	Set	160
	f	3.5 coreX70 Sqmm	Set	175
	g	3.5 coreX95 Sqmm	Set	210
	h	3.5 coreX120 Sqmm	Set	250
	i	3.5 coreX150 Sqmm	Set	450
	j	3.5 coreX185 Sqmm	Set	550
	k	3.5 coreX240 Sqmm	Set	650
	l	3.5 coreX300Sqmm	Set	900
	m	3.5 coreX400Sqmm	Set	1200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
180	ELEC-4.1.12	Supply and making end termination with heavy copper lugs (pin/ ring type) as per IS specification, duly crimped with crimping tool, PVC tape etc of following size Makes:Dowels/Jainson/Comet		
	a	up to 16 sqmm	each	20
	b	25 Sqmm	each	27
	c	35Sqmm	each	30
	d	50 Sqmm	each	45
	e	70 Sqmm	each	68
	f	95 Sqmm	each	88
181	ELEC-4.1.13	Supply and making end termination with heavy Alluminium lugs (pin/ ring type) as per IS specification duly crimped with crimping tool, PVC tape etc of following size Makes:Dowels/Jainson/Comet		
	a	up to 16 sqmm	each	10
	b	25 Sqmm	each	15
	c	35Sqmm	each	20
	d	50 Sqmm	each	25
	e	70 Sqmm	each	30
	f	95 Sqmm	each	35
	g	120 Sqmm	each	40
	h	150 Sqmm	each	45
	i	185 Sqmm	each	55
	j	240 Sqmm	each	80
	k	300 Sqmm	each	100
	l	400 Sqmm	each	170
	4.2	CABLE TRAYS		
182	ELEC-4.2.1	Supply,transporatation & installation of following sizes of Hot Dipped Galvanized Iron perforated cable trays without cover, including horizontal and vertical bends, reducers tees,cross members and other accessories as required and duly suspended from the ceiling/Wall with suspenders etc., complete (NB:Add 30% Extra for perforated cable tray with cover)		
	a	100mm x 50mm x 1.6mm	1 RM	265
	b	150mm x 50mm x 1.6mm	1 RM	310
	c	300mm x 50mm x 1.6mm	1 RM	570
	d	450mm x 50mm x 2.0mm	1 RM	830
	e	600mm x 50mm x 2.0mm	1 RM	950
	f	300mm x 62.5mm x 2.0mm	1 RM	685
	g	450mm x 62.5mm x 2.0mm	1 RM	920

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	h	600mm x 62.5mm x 2.0mm	1 RM	1140
	i	750mm x 62.5mm x 2.0mm	1 RM	1350
	j	900mm x 62.5mm x 2.0mm	1 RM	1600
	k	600mm x 75mm x 2.0mm	1 RM	1270
	l	750mm x 75mm x 2.0mm	1 RM	1400
	m	900mm x 75mm x 2.0mm	1 RM	1650
183	ELEC-4.2.2	Supply,transporatation & installation of following sizes of Hot Dipped Galvanized Iron ladder type cable trays with rungs at span of 250 mm including horizontal and vertical bends, reducers tees,cross members and other accessories as required and duly suspended from the ceiling/wall with suspenders and etc., complete		
	a	150mm x 50mm x 2.0mm	1 RM	390
	b	300mm x 50mm x 2.0mm	1 RM	490
	c	450mm x 50mm x 2.0mm	1 RM	650
	d	600mm x 75mm x 2.0mm	1 RM	800
	e	750mm x 75mm x 2.0mm	1 RM	850
	f	900mm x 75mm x 2.0mm	1 RM	900
	4.3	DOUBLE WALLED CORRUGATED HDPE PIPE		
184	ELEC-4.3.1	Supply and Transportation of double walled corrugated HDPE duct made as per specification BSEN - 500 86/IS 14930 Part-II. Makes:DURA LINE (Dura Guard) or its equivalent make.		
	a	Outer dia 50mm and Inner dia 38mm	1 RM	90
	b	Outer dia 63mm and Inner dia 51mm	1 RM	115
	c	Outer dia 78mm and Inner dia 63mm	1 RM	140
	d	Outer dia 90mm and Inner dia 76mm	1 RM	150
	e	Outer dia 120mm and Inner dia 103.5mm	1 RM	235
	f	Outer dia 160 mm and Inner dia 136 mm	1 RM	350
	g	Outer dia 180 mm and Inner dia 152 mm	1 RM	460
	h	Outer dia 200 mm and Inner dia 170 mm	1 RM	545
		SECTION - 5		
	5.1	FANS		
185	ELEC-5.1.1	Supply of 48" (1200mm) Sweep ISI mark Ceiling Fan as per IS 374 - 1979 and, with double ball bearings, power input not more than 50W , air delivery more than 200 cubic meter/min but without Regulator. Makes : Crompton / Bajaj Kassels 50 / Usha atom	1 No	1750
186	ELEC-5.1.2	Supply of 48" (1200mm) Sweep 5 Star rated Ceiling Fan, with double ball bearings without Regulator. Makes: Crompton HS Decora / Bajaj Regal Star / Havells ES Plus / Orient summer crown / Usha technix decorative	1 No	2300

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
187	ELEC-5.1.3	Supply of 56" (1400mm) Sweep Ceiling Fan as per IS 374 - 1979 and, with double ball bearings but without Regulator. Makes: Crompton High Speed /Havells Velocity/ Bajaj Kassels 50	1 No	1975
188	ELEC-5.1.4	Supply of 56" (1400mm) Sweep 5 Star rated Ceiling Fan without Regulator Makes: Crompton High Speed/ Bajaj Elegance Star / Havells.	1 No	2400
189	ELEC-5.1.5	Supply of 16" (400mm) Wall mounted Fan. Makes: Crompton SDX Gold / Bajaj Elite / Havells Swing Premia gold / Usha / Orient Wall 43.	1 No	2500
190	ELEC-5.1.6	Supply of 16" (400mm) Pedestal Fan. Makes: Crompton SDX Gold / Bajaj Spectrum / Havells Swing Remote / Usha / Orient.	1 No	2700
191	ELEC-5.1.7	Supply of 18" (450mm) Wall mounting / Pedestal Air Circulators. Makes: Crompton / Havells Turbo Force / Orient / Almounard.	1 No	5400
192	ELEC-5.1.8	Supply of 24" (600mm) Wall mounting / Pedestal Air Circulators. Makes: Crompton / Havells Turbo Force / Almounard.	1 No	6400
193	ELEC-5.1.9	Supply of 12" (300mm) Cabin fan. Makes: Crompton / Havells ciera / Orient AP12.	1 No	1700
194	ELEC-5.1.10	Supply of 12" (300mm) Light duty exhaust fan with metallic blades and wire guard etc complete. Makes: Crompton / Bajaj Bahar WG / Havells Ventil Air-DB / Orient hill air	1 No	1350
195	ELEC-5.1.11	Supply of 9" (225mm), Light duty exhaust fan with double ball bearing and wire guard etc complete. Makes: Crompton / Bajaj Bahar WG / Havells Ventil Air-DS / Orient hill air	1 No	1225
196	ELEC-5.1.12	Supply of 12" (300mm) ISI, 900 RPM Heavy duty exhaust fan with metallic blades with Mark. Makes: Crompton / Almounard / Havells Turbo Force.	1 No	2750
197	ELEC-5.1.13	Supply of 15" (375mm) ISI, 900 RPM Heavy duty exhaust fan with metallic blades with Mark. Makes: Crompton / Almounard / Havells Turbo Force	1 No	3200
198	ELEC-5.1.14	Supply of 18" (450mm) ISI, 900 RPM Heavy duty exhaust fan with metallic blades with Mark. Makes: Crompton / Almounard / Havells Turbo Force	1 No	4100
	5.2	WATER HEATERS (Conventional & Solar)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
199	ELEC-5.2.1	Supply, Transportation and fixing of storage / Pressure type Vertical / Horizontal 230/250V single phase 2000watts ISI mark 5 Star rated water heater with SS tank and ABS plastic body of capacity to withstand up to 6.5 bar of water pressure including all standard accessories and dead weight pressure reducing valve on out let side, including cost of 2 Nos nylon / PVC / Metallic hose pipe, testing and all labour charges etc., complete. Makes: Crompton model No. solarium plus SWH 725, Class 1 rated or its equivalent make of Bajaj / Venus / Racold / Usha / V-Guard / Havells./Jaquar/Essco		
	a	15 Ltrs	1 No	8950
	b	25 Ltrs	1 No	10500
200	ELEC-5.2.2	Supply,Transportation,erection and Commissioning of MNRE approved and confirming to IS 12933 P-1,2,3&5..... Tube Collector type Solar Water heating System with temperature application of 60 degrees with Stain less steel - 304L grade inner tank with PUF Insulation and Alluminum Cladding for Outer Cover,Suitable EPDM rubber pipe connection from Collector to Solar Tank with electrical Heating back up etc., with 3 years Guarantee for Solar system and additional 2 years warranty. Make:TATA / BHEL/ BOSCH/ ETC/V-GUARD /RACOLD		
	a	250 LPD	1 No	48400
	b	375LPD	1 No	67000
	c	500 LPD	1 No	76000
	d	1000 LPD	1 No	148000
201	ELEC-5.2.3	Supply,Transportation,erection and Commissioning of MNRE approved and confirming to IS 12933 P-1,2,3&5..... Flate plate Collector type Solar Water heating System with temperature application of 60 degrees with Stain less steel - 304L grade inner tank with PUF Insulation and Alluminum Cladding for Outer Cover,Suitable EPDM rubber pipe connection from Collector to Solar Tank with electrical Heating back up etc., with 3 years Guarantee for Solar system and additional 2 years warranty. Make:TATA / BHEL/ BOSCH/ ETC/V-GUARD /RACOLD		
	a	250 LPD	1 No	52000
	b	375 LPD	1 No	72000
	c	500 LPD	1 No	83500
	d	1000 LPD	1 No	165000
		HEAT PUMP		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
202	ELEC-5.2.4	Supply, Transportation and fixing of Energy Efficient Heat pump(Hybrid) water heater of Mono block storage / type Vertical / 230/250V single phase 50 Hz rated water heater with SS tank coated with Enamel and stain less body with IP X 4 water Proff grade of capacity Mono Block unit to withstand up to 0.8 - 1.0 MPa bar of water pressure including 2 Kw Heating element and Auto Defrosting and with 50 MM Puf insulation with all standard accessories and dead weight pressure reducing valve on out let side, including cost of CPVC Piping / Metallic hose pipe, testing and all labour charges etc., complete. Make:Jaquar/AO Smith/Voltex/Racold /Rheem		
	a	200 Ltr	1 No	109200
	b	300 Ltr	1 No	138600
203	ELEC-5.2.5	Supply, Transportation and fixing of Energy Efficient Heat pump(Hybrid) water heater of split type storage / type Vertical / 230/250V single phase 50 Hz rated water heater with SS tank coated with Enamel and prepainted steel body with IP X 4 water Proff grade of .....capacity Mono Block unit to withstand up to 0.8 - 1.0 MPa bar of water pressure including 2 Kw Heating element and Auto Defrosting and with 50 MM Puf insulation with all standard accessories and dead weight pressure reducing valve on out let side, including cost of CPVC Piping / Metallic hose pipe, testing and all labour charges etc., completeMake:Jaquar/AO Smith/Voltex/Racold /Rheem		
	a	400 Ltr	1 No	134500
	b	500 Ltr	1 No	164640
	5.3	ACCESSORIES FOR WATER HEATERS		
204	ELEC-5.3.1	Supply and fixing of stem type ISI marked (IS 3017 / 85) snap action adjustable thermostat storage water heater including making connection testing etc. as required.Makes:		
	a	11" stem thermostat	1 No	190
	b	7" stem thermostat	1 No	170
205	ELEC-5.3.2	Supply and fixing of stem type, ISI marked, push to reset type auto thermal cut off and rated at 20 A 250 V including testing etc. as required.	1 No	225
206	ELEC-5.3.3	Supply and fixing of ISI marked (IS:4159) marked copper sheathed,nickle plated, mineral filled heating element including making connection testing etc as required		
	a	3.0 KW	1 No	650
	b	2.0 KW	1 No	620
207	ELEC-5.3.4	Supply and fixing of twin ceramic catridge, shock and hard water proof heating element including making connecton testing etc as required		
	a	3.0 KW	1 No	750
	b	2.0 KW	1 No	650

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
208	ELEC-5.3.5	Supply and fixing of base plate assembly with neoprene rubber gasket, inlet socket with inbuilt NRV/ PRV and drain out system and outlet socket pipe,fusible plug assembly,mounting hardwares complete etc. as required.		
	a	15 Ltr. To 50 Ltr. Capacity SWH	1 No	1400
209	ELEC-5.3.5	Supply and fixing of heavy duty C.P. connection for storage water heater for inlet and outlet of length 300-600 mm including the cost of nuts, washers etc as required.	1 set	250
210	ELEC-5.3.6	Charges for brass welding of inner copper tank for storage water heater including opening,refixing,testing etc. as required	job	400
211	ELEC-5.3.7	Charges for descaling of storage water heater including required chemical, opening, refixing, testing as complete	job	300
212	ELEC-5.3.8	Charges for Fixing of storage water heater including four nos. rag bolts of suitable size,supply & making heavy gauge inlet, outlet C.P. connection, testing, carrying from store to site,etc. as required	job	650
	5.4	PUMPSETS		
		SINGLE PHASE SUBMERSIBLE MOTOR PUMP SETS		
213	ELEC-5.4.1	Supply and Transportation of .....5star rated submersible motor pumpset, confirming to IS 8034 and motor confirming to IS 9283 with water proof winding,Pump shall be suitable for various delivery head and discharge with stainless steel shaft.Motor suitable for working on 240V \pm 10% , SinglePhase 50 Hz AC supply,etc complete for 4" Bore well. Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi/ PSG/Aryen Varsha		
	a	0.75HP 8 Stage	1 No	14150
	b	1.00HP 10 Stage	1 No	16200
	c	1.00HP 15 Stage	1 No	16700
	d	1.50HP 21 Stage	1 No	20250
	e	2.00HP 25 Stage	1 No	24300
	f			
214	ELEC-5.4.2	Supply and Transportation of .....5star rated submersible motor pumpset, confirming to IS 8034 and motor confirming to IS 9283 with water proof winding,Pump shall be suitable for various delivery head and discharge with stainless steel shaft.Motor suitable for working on 240V \pm 10% , SinglePhase 50 Hz AC supply,etc complete for 4" Bore well. Makes: Plugra / Sterling / Falcon / Kumar / Unnati zen/Duke/Lada/Ellen/Suguna/UNIttek/KSP		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	0.75HP 8 Stage	1 No	12700
	b	1.00HP 10 Stage	1 No	14500
	c	1.00HP 15 Stage	1 No	15000
	d	1.50HP 21 Stage	1 No	18200
	e	2.00HP 25 Stage	1 No	21850
	f			
		THREE PHASE SUBMERSIBLE MOTOR PUMP SETS.		
215	ELEC-5.4.3	Supply and Transportation of .....5star rated submersible motor pumpset, confirming to IS 8034 and motor confirming to IS 9283 with water proof winding,Pump shall be suitable for various delivery head and discharge with stainless steel shaft.Motor suitable for working on 415V \pm 10% , Three Phase 50 Hz AC supply,etc complete for 4" Bore well. Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi/ PSG/Aryen Varsha		
	a	3.00HP 15Stage	1 No	19700
	b	4.00HP 20Stage	1 No	23000
	c	5.00HP 25Stage	1 No	27200
216	ELEC-5.4.4	Supply and Transportation of .....5star rated submersible motor pumpset, confirming to IS 8034 and motor confirming to IS 9283 with water proof winding,Pump shall be suitable for various delivery head and discharge with stainless steel shaft.Motor suitable for working on 415V \pm 10% , Three Phase 50 Hz AC supply,etc complete for 4" Bore well. Makes: Plugra / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Duke/Lada/Ellen/Suguna/UNIttek/KSP		
	a	3.00HP 15Stage	1 No	18500
	b	4.00HP 20Stage	1 No	21600
	c	5.00HP 25Stage	1 No	25600
217	ELEC-5.4.5	Supply and Transportation of .....5star rated submersible motor pumpset, confirming to IS 8034 and motor confirming to IS 9283 with water proof winding,Pump shall be suitable for various delivery head and discharge with stainless steel shaft.Motor suitable for working on 415V \pm 10% , Three Phase 50 Hz AC supply,etc complete for 6" Bore well. Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi/ PSG/Aryen Varsha		
	a	3.00HP 5-10 Stage	1 No	30000
	b	5.00HP, 5-10Stage	1 No	33750
	c	5.00HP, 12-16 Stage	1 No	38500
	d	7.50HP, 5-10 Stage	1 No	37900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	e	7.50HP, 12-16 Stage	1 No	42000
	f	7.50HP, 20-24 Stage	1 No	43000
	g	10HP, 5-10 Stage	1 No	44500
	h	10HP, 12-16 Stage	1 No	46000
	i	10HP, 20-24 Stage	1 No	52000
	j	12.5HP, 8-12 Stage	1 No	46000
	k	12.5HP, 16-24 Stage	1 No	54000
	l	15HP, 8-12 Stage	1 No	57900
	m	15HP, 16-24 Stage	1 No	59800
	n	20HP 10-20 Stage	1 No	69500
	o	20HP 30-40 Stage	1 No	72500
218	ELEC-5.4.6	Supply and Transportation of .....5star rated submersible motor pumpset, confirming to IS 8034 and motor confirming to IS 9283 with water proof winding, Pump shall be suitable for various delivery head and discharge with stainless steel shaft. Motor suitable for working on 415V \pm 10% , Three Phase 50 Hz AC supply, etc complete for 6" Bore well. Makes: Plugra / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Duke/Lada/Ellen/Suguna/UNItex/KSP		
	a	3.00HP 5-10 Stage	1 No	27000
	b	5.00HP, 5-10 Stage	1 No	30300
	c	5.00HP, 12-16 Stage	1 No	34650
	d	7.50HP, 5-10 Stage	1 No	34100
	e	7.50HP, 12-16 Stage	1 No	37800
	f	7.50HP, 20-24 Stage	1 No	38700
	g	10HP, 5-10 Stage	1 No	40000
	h	10HP, 12-16 Stage	1 No	41500
	i	10HP, 20-24 Stage	1 No	46800
	j	12.5HP, 8-12 Stage	1 No	41500
	k	12.5HP, 16-24 Stage	1 No	48600
	l	15HP, 8-12 Stage	1 No	52100
	m	15HP, 16-24 Stage	1 No	53800
	n	20HP 10-20 Stage	1 No	62500
	o	20HP 30-40 Stage	1 No	65200
		SINGLE PHASE OPEN WELL SUBMERSIBLE MOTOR PUMP SETS		
219	ELEC-5.4.7	Supply and Transportation of .....Single phase open well submersible motor pumpset confirms to IS 14220 : 1994. Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi/PSG/ Aryen Varsha		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	1.00HP	1 No	11200
	b	1.50HP	1 No	12600
	c	3.00HP	1 No	17200
220	ELEC-5.4.8	Supply and Transportation of .....Single phase open well ISI submersible motor pumpset confirms to IS 14220 : 1994. Makes: Plugra / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Duke/LDK/Ellen/Suguna/UNItex/KSP		
	a	1.00HP	1 No	10500
	b	1.50HP	1 No	12000
	c	3.00HP	1 No	16350
		THREE PHASE OPEN WELL SUBMERSIBLE PUMP SETS		
221	ELEC-5.4.9	Supply and Transportation of Three phase open well ISI submersible motor pumpset confirms to IS 14220 : 1994. . Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi /PSG/ Aryen Varsha		
	a	3.00HP(65x50)	1 No	17200
	b	5.00HP(75x65)	1 No	21500
	c	7.50HP(100x75)	1 No	25500
	d	10.00HP(100x75)	1 No	32500
222	ELEC-5.4.10	Supply and Transportation of Three phase open well ISI submersible motor pumpset confirms to IS 14220 : 1994. . Makes: Plugra / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Duke/LDK/Ellen/Suguna/UNItex/KSP		
	a	3.00HP(65x50)	1 No	16500
	b	5.00HP(75x65)	1 No	20200
	c	7.50HP(100x75)	1 No	24000
	d	10.00HP(100x75)	1 No	31000
		SINGLE PHASE MONO BLOCK MOTOR PUMP SETS.		
223	ELEC-5.4.11	Supply and Transportation of Single phase Mono block CI body motor pumpset confirms to IS 9079:2002 Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi / Havells Hi-flow V2 / PSG/Aryen Varsha		
	a	0.5HP(25x25mm)	1 No	5000
	b	1.0HP (25x25mm)	1 No	7150
	c	1.5HP(32x25mm)	1 No	9600
224	ELEC-5.4.12	Supply and Transportation of Single phase Mono block CI body motor pumpset confirms to IS 9079:2002 Makes: Plugra / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Ellen/LDK/Suguna/UNItex		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	0.5HP(25x25mm)	1 No	4700
	b	1.0HP (25x25mm)	1 No	6800
	c	1.5HP(32x25mm)	1 No	9150
225	ELEC-5.4.13	Supply and Transportation of..... Three phase ISI self priming Mono block IP44 motor pumpset . Makes: Kirloskar / Crompton / Texmo / CRI / KSB/Lubi/ Aryen Varsha		
	a	2.00HP(40x40mm)	1 No	14200
	b	3.0HP (50x50mm)	1 No	19200
	c	5.00HP(80x80mm)	1 No	23200
226	ELEC-5.4.14	Supply and Transportation of..... Three phase ISI self priming Mono block IP44 motor pumpset . Makes: Plugra / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Ellen/LDK/Suguna/UNItex		
	a	2.00HP(40x40mm)	1 No	13500
	b	3.0HP (50x50mm)	1 No	18300
	c	5.00HP(80x80mm)	1 No	22200
		CONTROL PANEL BOARD FOR MOTOR PUMPSETS		
227	ELEC-5.4.15	Fabrication , transportation and supply of suitable size panel board for single phase submersible motor up to 1.5 HP consisting of relay, Contactor, starting and running capacitors, Voltmeter, Ammeter, indicator lamps, MCB , on/off switch including supply and fixing of DOL starter of make C&S/LTLK/Seimens/BCH/Crompton. complete.,	1 No	4500
228	ELEC-5.4.16	Fabrication , transportation and supply of suitable size panel board for single phase submersible motor 2 to 3HP consisting of relay, Contactor, starting and running capacitors, Voltmeter, Ammeter, indicator lamps, MCB , on/off switch including supply and fixing of DOL starter of make C&S/LTLK/Seimens/BCH/Crompton. complete.,	1 No	6000
229	ELEC-5.4.17	Fabrication ,transportationand and supply of wall mounted control panel board of size 600x600x250mm made of 18 SWG CRCA sheet steel enclosure, 14 SWG mounting plate for cable entry fabricated , painted with two coats of Red oxide primer and two coats of Grey paint, lock and key arrangements two side lovures with weld mesh inside etc., complete consisting of the following equipment with all internal wiring using L&T / Finolex copper FRLS cables of suitable size and capacity and cable clamp etc complete for 3 phase motor pump sets.		
		Voltmeter ; 0-500 V 96x96mm size. Makes: L&T / C&S / SALZAR / HPL/ AEI / Meco / Rishab - 1No		
		0 to 20 Amps / 0 50 Amps Ammeter (96x96mm size). Makes: L&T / C&S / SALZAR / HPL/ AEI / Meco / Rishab- 1No.		
		Single phase preventor of suitable range Makes: L&T / Minilec / Powertec. - 1No.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		32 A TP, 10KA MCB. Makes: Legrand / Schneider / - 1No		
		Indication lamps (R-Y-B) with switch control - 1set		
		Voltmeter & Ammeter selector switch - 2 Nos		
		Supply and fixing of ISI Mark suitable capacitor Makes: L&T / Siemens / Schneider / Epcos/Havells.		
230	a	Upto 7.5 HP with DOL Starter of. Make C&S.Crompton / L&T / Siemens/BCH.	1 No	8000
231	b	Delta Starter of Make C&S/Crompton / L&T / Siemens/BCH.	1 No	11500
232	c	Above 15 HP up to 20 HP with Automatic Star Delta Starter of Make C&S/Crompton / L&T / Siemens/BCH.	1 No	18500
233	ELEC-5.4.18	Supply & Fixing of D.O.L Starter 250V, Single phase, 50Hz. With SS encloser comprising of contactor with bi-metalic relay with necessary push buttons, etc., complete suitable for..... Makes: Siemens / Crompton / L&T (MF1)		
	a	up to 3 HP	1 No	950
234	ELEC-5.4.19	Supply & Fixing of D.O.L Starter 415V, 3 phase, 50Hz.. enclosed with no volt coil and overload protection with necessary materials, etc., complete suitable for..... Makes: Siemens / Crompton / L&T (MK2 DOL).		
	a	up to 3 HP	1 No	1700
	b	5 to 7.5 HP	1 No	1900
	c	10 HP	1 No	2100
235	ELEC-5.4.20	Supply & Fixing of Star-Delta Starter 415V, 3 phase, 50Hz.. enclosed with no volt coil, overload protection and single phase preventor , etc., complete suitable for Makes: Siemens / Crompton / L&T (MU1 DOL)		
	a	12.50 to 15HP.	1 No	6800
	b	25HP to 30HP	1 No	11220
		UPVC PIPES AND FITTINGS		
236	ELEC-5.4.21	Supply and delivery of for submersible motors with both ends square threaded, with rubber 'O' rings with smooth inner surface which can take the minimum load of 2100 to 4000 Kgs weights. Makes : Ashirvad / Finolex / Waterflo /Sudhakar		
	a	42 / 32mm dia UPVC raising column pipe, with standing upto 20 Kgs / CM2 upto 200 Mts	1RM	130
	b	48 / 40mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1RM	160
	c	60/50 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1RM	230
	d	75/65 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1RM	310

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	e	88/80 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1RM	445
237	ELEC-5.4.22	Supply and delivery of heavy duty couplings 42/32 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1NO	40
238	ELEC-5.4.23	Supply and delivery of heavy duty couplings 48/40 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1NO	55
239	ELEC-5.4.24	Supply and delivery of heavy duty couplings 60/50 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1NO	60
240	ELEC-5.4.25	Supply and delivery off heavy duty couplings 75/65 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1NO	70
241	ELEC-5.4.26	Supply and delivery of heavy duty couplings 88/80 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1NO	80
242	ELEC-5.4.27	Supply and Delivery of CI Adopter Assembly Makes : Ashirvad / Finolex / Waterflo		
	a	1/2" (48/40mm)	1NO	575
	b	2" (60/50mm)	1NO	760
	c	2 1/2" (75/65 mm)	1NO	980
243	ELEC-5.4.28	Supply and Delivery of pump guard assembly with 2Nos SS Powder coated flange and 2Nos SS Rods with nut and colter pin. Makes : Ashirvad / Finolex / Waterflo / Apollo		
	a	1 1/2" (48/40mm)	1NO	360
	b	2" (60/50mm)	1NO	400
	c	2 1/2" (75/65 mm)	1NO	550
	d	3"(88/80 mm)	1NO	800
	5.5	AIR CONDITIONERS		
244	ELEC-5.5.1	Supply of .....split AC unit with high wall mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units with 3 mts of copper piping, insulation kit and 4 mts of 3 core copper flexible cable including cordless remote control etc.		
		1.0TR Split ACs		
	a	1.0 TR 3 Star capable of delivering 12000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Mitsubishi MS-GK13VA / O General ASGA12BMTA / Toshiba RAS13S3KS	1 No	32500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	1.0 TR 3 Star capable of delivering 12000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Blue Star VCTU / Carrier Supiria / Hitachi / Daikin	1 No	28500
	c	1.0 TR 5 Star capable of delivering 12000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Mitsubishi MS-GK13VA / O General / Toshiba RAS13S3KPS	1 No	36000
	d	1.0 TR 5 Star capable of delivering 12000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Blue Star 5HW12SBU / Carrier Supiria / Hitachi / Daikin	1 No	31500
		1.5TR Split ACs		
	e	1.5 TR 3 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A. Makes: Mitsubishi MS-H18VA / O General ASGA18FETA	1 No	40500
	f	1.5 TR 3 Star capable of delivering 18000 BTU / hr and above with operating on refrigerant R-32 / R-410A Makes: Toshiba RAS18S3KS / Blue Star VA or VC series / Daikin FTE-M or N Sereis / Hitachi / Voltas / Carrier Superia.	1 No	37500
	g	1.5 TR 5 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Mitsubishi MS-GK18VA / O General ASGA18FTTA	1 No	47500
	h	1.5 TR 5 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Toshiba RAS18S3KPS / Daikin / Blue Star 5HW12SBU / Hitachi / Voltas / Carrier Superia.	1 No	43850
		2.0 TR Split ACs		
	i	2.0 TR 3 Star capable of delivering 24000 BTU/ hr and above with operating on refrigerant R-32 / R-410A Makes: Mitsubishi MS-HK24VA / O General ASGA24FETA	1 No	48500
	j	2.0 TR 3 Star capable of delivering 24000 BTU/ hr and above with operating on refrigerant R-32 / R-410A Makes: Toshiba RAS24S3KS / Hitachi / Blue Star / Daikin / Voltas / Carrier Superia.	1 No	44500
	k	2.0 TR 5 Star capable of delivering 24000 BTU/ hr and above with operating on refrigerant R-32 / R-410A Makes: Mitsubishi MS-GK24VA / O General ASG24FTTA	1 No	55000
	l	2.0 TR 5 Star capable of delivering 24000 BTU/ hr and above with operating on refrigerant R-32 / R-410A Makes: Toshiba RAS24S3KPS / Blue star 5HW24AAX1 / Hitachi / Daikin.	1 No	50200
		Inverter Split AC Unts (Cooling Only)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
245	ELEC-5.5.2	Supply of .....INVERTER Model Cool type split AC unit with high wall mounted Single Split indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing Heat cool dehumidifying air circulating and filtering with cooling and condensing units with 3 mts of copper piping, insulation kit and 4 mts of 4 core copper flexible chord with cordless remote control etc., dual barrier coating in order to protect coil form oxidation.		
		1.5, 1.8 & 2.0TR Split ACs		
	a	1.5 TR 3 star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A, Makes: Mitsubishi MS-JP18VF / O General	1 No	44000
	b	1.5 TR 3 star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A, Makes: Toshiba RASBACV / Blue Star OATU-CAFU series / Daikin / Hitachi	1 No	41500
	c	1.5 TR 5 star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A, Makes: Mitsubishi MS-GN18VF / O General ASGA18JCC	1 No	48000
	d	1.5 TR 5 star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A, Makes: Toshiba RAS18N3KCV / Blue Star PAFU-DAFU series / Daikin FTKC50NVM / Hitachi	1 No	46500
	e	2.0TR 3 star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-410A / R-32 Makes: Mitsubishi / O General /Toshiba	1 No	58000
	f	2.0 TR 3 Star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-410A / R-32 Makes: Blue star CAFU-OATU series / Hitachi / Daikin	1 No	55000
	g	2.0/2.2 TR 5 star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-410A / R-32 Makes: Mitsubishi MS-GN26VF / O General ASGA24JCC/Toshiba	1 No	68200
	h	2.0 TR 5 Star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-410A / R-32 Makes: Blue star BAFU-DAFU series / Hitachi / Daikin	1 No	61000
		INVERTER CASSETTE TYPE AC UNITS		
246	ELEC-5.5.35	Supply of inverter Cassette type AC unit with ceiling mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc. complete with Wireless remote controller, without refrigerent piping and cable.		
	a	1.5 TR 4 star Single Phase capable of delivering 18000 BTU / hr and above with operating on refrigerant R-32 / R-410A. Makes: Mitsubishi PLY-SP18BA / Toshiba RAV-SE561UP / O General.	1 No	73000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	2.0TR 4 star Single Phase capable of delivering 24000 BTU / hr and above with operating on refrigerant R-32 / R-410A, Makes: Mitsubishi PLY-SP24BA / O General / Toshiba	1 No	79000
	c	2.0TR 4 star Single Phase capable of delivering 24000 BTU / hr and above with operating on refrigerant R-32 / R-410A Makes: Blue Star/ Daikin / Carrier.	1 No	75000
	d	3.5 TR 4 star Three Phase capable of delivering 42000 BTU / hr and above with operating on refrigerant R-32 / R-410A, Makes: Mitsubishi PLY-SP42BA / O General	1 No	135500
	e	3.5 TR 4 star Three Phase capable of delivering 42000 BTU / hr and above with operating on refrigerant R-32 / R-410A Makes: Daikin / Bluestar / Carrier	1 No	120000
	f	4.0 TR 4 star Three Phase capable of delivering 48000 BTU / hr and above with operating on refrigerant R-32 / R-410A Makes: Mitsubishi PLY-SP48BA / O General / Toshiba RAV-SE1251UP	1 No	138000
	g	4.0 TR 4 star Three Phase capable of delivering 48000 BTU / hr and above with operating on refrigerant R-32 / R-410A Makes: Blue Star / Carrier / Daikin	1 No	129000
		TOWER MODEL (Vertical) TYPE AC UNITS		
247	ELEC-5.5.36	Supply of Slim line / Tower Model/Verticool type .....split AC unit with indoor unit and floor mounted outdoor condensing unit Hermetically sealed Scroll compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with cordless remote control		
	a	3.3TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32/R-410 Makes: Carrier /Daikin / Blue Star	1 No	87000
	b	3.8TR Three Phase capable of delivering 45600BTU/hr and above with operating on refrigerant R-32/R-410 Makes: Carrier /Daikin / Blue Star	1 No	92000
	c	4.6TR Three Phase capable of delivering 55200 BTU/hr and above with operating on refrigerant R-32/R-410 Makes: Carrier /Daikin / Blue Star	1 No	97500
		HVAC SYSTEMS(VRV/VRF)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
248	ELEC-5.6.1	Supply of Air cooled VRV / VRF Air Conditioning system of having high COP complete with indoor and outdoor units duly charged with refrigerant R-410A and oil (first charge) suitable for cooling with individual controller, (suitable for 415 +/- 10% for outdoor and 230 +/- 5% for indoor units) and complete with all accessories, fittings etc. The units shall be BMS Compatible. Outdoor Units shall be fully inverter system complete with 100% scroll/rotary compressor and drive arrangement, initial charge of refrigerant (R-410A), refrigerant piping, drier, sight glass, dual pressure cutout all housed and supported properly in cabinet, air cooled condenser & its controller for following capacities. The VRV system shall be cooling only system. Makes: Mitsubishi /DAIKIN/Toshiba		
		Type of Compressor : Hermitic sealed Inverter Scroll/Twin Rotary		
		ODU should deliver the required capacity at the ambient conditions of the place as per ISHRAE Standards.		
		The System should be highly energy efficient and COP shall not be less than 3.7. The outdoor units shall be suitable for operation between 5 and 53 deg C in cooling mode.		
	a	6 HP	1 No	145000
	b	8 HP	1 No	158000
	c	10 HP	1 No	196000
	d	12 HP	1 No	220000
	e	14 HP	1 No	249000
	f	16 HP	1 No	284000
	g	18 HP	1 No	312000
	h	20 HP	1 No	343000
249	ELEC-5.6.2	Supply and Installation of Ref Nets for double ODU connections		4800
250	ELEC-5.6.3	Supply and Installation of Ref Nets for Triple ODU connections		9200
251	ELEC-5.6.4	Supply and Installation of Multi Connection Joint / Ref Nets for IDUs		4200
252	ELEC-5.6.5	Supply of Indoor Units consisting of 2/3/4 row deep DX coil, filter, blower section and drive arrangement, initial charge of refrigerant & oil, integral refrigerant piping, electronic expansion valve, electrical panel with controls and duly wired, thermostatic control. Makes: Mitsubishi /DAIKIN/Toshiba		
		Type Of Units :Hi Wall type units	1 No	
	a	1.0 TR	1 No	27500
	b	1.6 TR	1 No	30000
	c	2.0 TR	1 No	31000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
253	ELEC-5.6.6	Supply of Indoor Units consisting of 2/3/4 row deep DX coil, filter, blower section and drive arrangement, initial charge of refrigerant & oil, integral refrigerant piping, electronic expansion valve, electrical panel with controls and duly wired, thermostatic control. Makes: Mitsubishi /DAIKIN/Toshiba		
		Type Of Units :Roundflow Cassette units		
	a	1.0 TR	1 No	36600
	b	1.5/1.6 TR	1 No	41000
	c	2.0 TR	1 No	42000
	d	2.6 TR	1 No	46000
	e	3.2 TR	1 No	47000
	f	4.0 TR	1 No	48000
	g	4.5 TR	1 No	50300
254	ELEC-5.6.7	Supply of Indoor Units consisting of 2/3/4 row deep DX coil, filter, blower section and drive arrangement, initial charge of refrigerant & oil, integral refrigerant piping, electronic expansion valve, electrical panel with controls and duly wired, thermostatic control. Makes: Mitsubishi /DAIKIN/Toshiba		
		Type Of Units :High Static Duct Units		
	a	3.2 TR	1 No	50300
	b	4.0 TR	1 No	52800
	c	4.5 TR	1 No	62500
	d	5.5 TR	1 No	84200
	e	6.3 TR	1 No	88700
	f	8.0 TR	1 No	93500
255	ELEC-5.6.8	Supply, Installation, Testing & Commissioning Simple wireless remote controller to control the IDUs with Machine coding, ON-OFF & Temp. setting of individual IDU and group of IDU.		1400
256	ELEC-5.6.9	Supply of Indoor Units consisting of 3/4 row deep DX coil, drain pan, filter, blower section and drive arrangement, initial charge of refrigerant & oil, integral refrigerant piping, electronic expansion valve, electrical panel with controls, duly wired, thermostatic control corded/cordless remote controller supports for indoor units etc. Makes: Mitsubishi /DAIKIN/Toshiba		
		Type of Units : Ductable TFA Units		
	a	4TR	1 No	82650
	b	6TR	1 No	99600
	c	8TR	1 No	105000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
257	ELEC-5.6.10	Lifting, shifting, positioning, Installation and testing of the ODU's including all accessories with Vibration Isolators for ODU's etc., complete		
	a	6 to 8 HP	1 No	7000
	b	10 to 12 HP	1 No	10000
	c	14 to 20 HP	1 No	12000
258	ELEC-5.6.11	Lifting Shifting, Positioning ,Installation Testing and commissioning of the following indoor units with including all required accessoires etc complete.,		
		Type Of Units :Hi Wall Units	1 No	
	a	1.0 TR to 2.0 TR	1 No	1200
259	ELEC-5.6.12	Lifting Shifting, Positioning ,Installation Testing and commissioning of the following indoor units with including all required accessoires etc complete.,		
		Type Of Units :Round Flow Cassette units		
	a	1.0 TR to 2.0 TR	1 No	1500
	b	2.6 TR to 4.5 TR	1 No	2500
260	ELEC-5.6.13	Lifting Shifting, Positioning ,Installation Testing and commissioning of the following indoor units with including all required accessoires etc complete.,		
		Type Of Units :High Static Duct Units		
	a	3.2 TR to 4.5 TR	1 No	3000
	b	5.5 TR to 8.0 TR	1 No	4500
261	ELEC-5.6.14	Installation, testing & commissioning of Indoor Units consisting of 2/3/4 row deep DX coil, filter, blower section and drive arrangement, initial charge of refrigerant & oil, integral refrigerant piping, electronic expansion valve, electrical panel with controls duly wired, thermostatic control corded/cordless remote controller supports for indoor units etc.		
		Type of Units : Ductable TFA Units		
	a	4 TR to 8 TR	1 No	4500
		Refrigerant Piping		
262	ELEC-5.6.15	Supply, installation and testing of Refrigerant Piping consisting of Copper tubes of wall thickness 20G/22G inclusive of Suction Gas Piping & Fittings,Liquid Line Piping & Fittings, with class "O" nitrile rubber Insulation with finish as required.The piping to be mounted & supported properly with suitable size of clamp,M.S. hanger, tray etc., as required at site Makes:Totaline/Mandav/Mexico		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		The insulation shall be closed cell/cross linked elastomeric Nitrile rubber of thickness 13/19 mm. The insulation thickness upto 19.1 mm dia pipe shall be 13 mm and above 19.1 mm dia, the insulation thickness shall be 19 mm.		
		Testing of refrigerant piping and procedure shall be done as per Manufacturer's recommendations		
	a	34.9 mm dia		1150
	b	28.6 mm dia	Rmt	1050
	c	22.2 mm dia	Rmt	950
	d	19.1 mm dia	Rmt	850
	e	15.9 mm dia	Rmt	750
	f	12.7 mm dia	Rmt	650
	g	9.5 mm dia	Rmt	480
	h	6.4 mm dia	Rmt	420
263	ELEC-5.6.16	Supply, installation and testing of UPVC Drain Piping with 6mm Nitrile Rubber class "O" Insulation covered with interwoven glass cloth protection. Necessary pipe fittings(Including enlarger, bends, T Joints etc) has to be considered to connect the UPVC drain pipe to cast iron floor trap.		
	a	25 mm dia	Rmt	150
	b	32 mm dia	Rmt	180
	c	40mm dia	Rmt	220
	d	50 mm dia	Rmt	260
		Supply of PVC insulated 2 core 1.5 Sqmm sheathed flexible copper cable for voltage up to 1100V as per IS 694/1990. (Covered in Section -1)	Rmt	
264	ELEC-5.6.17	Supply and transportation of R 410A Gas for the system.	kg	1050
265	ELEC-5.6.18	Providing Pressure testing of entire system with Nitrogen and vaccuming nitrogen for all indoor and outdoor units. The pressure testing shall be done as per OEM recommendation.	HP	1250
266	ELEC-5.6.19	Supply, installation, testing & commissioning of Stand alone, intelligent Touch controller with Display for controlling the indoor & outdoor units from a Remote place for all the circuits.	No	74000
267	ELEC-5.6.20	Supply, installation, testing & commissioning of GSS Ducting with required angle flanges & installation materials such as heavy duty supports by anchor fasteners etc as required as per IS 655 /SMACNA Standards Makes:TATA/Jindal		
	a	24 G	sqm	825

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	22 G	sqm	925
	c	20 G	sqm	1100
	d	18 G	sqm	1200
		Thermal Insulation		
268	ELEC-5.6.21	Supply & Fixing of Duct Thermal Insulation applied outside of the duct work with All. backed Closed cell nitrile/ Cross linked foam duly fixed with adhesive and tapes.		
		13 mm Thick	sqm	580
		Accoustic Insulation		
269	ELEC-5.6.22	Supply & Fixing of Duct Accoustic Insulation applied inside of the duct work with All. backed Open cell nitrile/ Cross linked foam duly fixed with adhesive and tapes		
	a	25mm Thick	sqm	750
270	ELEC-5.6.23	Supply, Installation, Testing and commissioning of extruded Aluminum powder coated grills/ diffusers for supply with removable core type with collar damper	sqm	8500
271	ELEC-5.6.24	Supply, Installation, Testing and commissioning of extruded Aluminum powder coated grills/ diffusers for retron with removable core type without collar damper	sqm	6200
272	ELEC-5.6.25	Supply , Erection and Testing of GI Opposed blade Volume control dampers made out of 18G frame and 20G blades	sqm	5400
273	ELEC-5.6.26	Supply , Erection of Fresh air louver with extruded aluminium grill with SS wire mesh and GI volume control damper with 20 micron filters	sqm	4300
274	ELEC-5.6.27	Supply and Installation of Underdeck Insulation with 50 mm thk EPS, 48 Kg/Cum density, factory laminated faced alumimun foil coreved with GI cross wiring.	sqm	650
275	ELEC-5.6.28	Supply and Installation of GI Fusible link Fire dampers 500 mm long with sleeve as per UL 555 Standard, Minimum width of damper shall be 225 mm.	sqm	6500
276	ELEC-5.6.29	Supply and Installation of GI backdraft dampers as per UL 555 Standard,	sqm	3000
277	ELEC-5.6.30	Supply, installation and testing of Canvas connection for the Treated Fresh Air units to the duct	each	2200
	5.7	EVAPORATIVE AIR COOLING SYSTEM		
278	ELEC-5.7.1	Supply of single phase evaporative air cooling unit with a capacity of 9000 CFM consisting cabinet and water tank made of polypropylenematerial, blower water pump of 40W, single phase 1.20 KW motor axial type fan with variable speed, 20 micron filtration, noise levelless than 78 dBA with auto cleaning, humidity control and water lack protection etccomplete. Makes: Cool Breeze / Breeze Air	1 No	105000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
279	ELEC-5.7.2	Supply of Three phase evaporative air cooling unit with a capacity of 12000 - 15000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, Three phase 3.0 KW motor axial type fan with 2 speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack protection etc complete. Makes: Cool Breeze /Breeze Air	1 No	180000
280	ELEC-5.7.3	Supply and fixing of 12mm thick Nitrile insulation for out door unit.	1 sft	55
281	ELEC-5.7.4	Supply and fixing of 40mm thick glasswool of 24 kg density with aluminium foil insulation for indoor duct.	1 sft	58
282	ELEC-5.7.5	Supply and fixing of angular iron frame with 2 coats of zincromat red oxide for installation of air cooling unit	1 No	5000
283	ELEC-5.7.6	Installation and commissioning charges for air cooling unit	1 No	3600
	5.8	STABILIZERS		
284	ELEC-5.8.1	Supply of Stabilizer. Makes: V-Guard / Real Guard / Uni Stab / ITL.		
	a	0.5 KVA	1 No	820
	b	1.0 KVA	1 No	1450
	c	3.0 KVA	1 No	2000
	d	4.0 KVA	1 No	2700
	e	5.0 KVA	1 No	3300
285	ELEC-5.8.2	Supply of Stabilizer. Makes: Keeline / Soft Line		
	a	0.5 KVA	1 No	675
	b	1.0 KVA	1 No	1300
	c	3.0 KVA	1 No	1700
	d	4.0 KVA	1 No	2500
	e	5.0 KVA	1 No	3100
	5.9	REPAIRING OF FANS, COOLERS, PUMPS, MOTORS, FRIDGES AND AIRCONDITIONERS		
286	ELEC-5.9.1	Rewinding of ceiling fan motor (starting and running winding) including all necessary material. The motor is to be wound taking no. of coils, turns and pitch as it was originally wound with required size super enamelled wire with 'E' class insulation material and making connections etc. as required. (New model ceiling fan)		
	a	900/1200 mm sweep	1 No	325
	b	1400 mm sweep	1 No	390
287	ELEC-5.9.2	Charges for oiling, greasing, overhauling of ceiling fan, table fan, pedestal fan irrespect to the size of fan including removing,refixing of fan from site and testing etc. as required	1 No	150

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
288	ELEC-5.9.3	Providing and Replacement of ball bearing of ceiling/ exhaust fan as required. (NBC/ SKF)	1 No	175
289	ELEC-5.9.4	Providing and Replacement of Gun metal bush of ceiling/ exhaust/cooler fan/ as required	1 No	150
290	ELEC-5.9.5	Servicing and overhauling of 20" sweep desert cooler including oiling, greasing, painting of tank from inside with rubber paint after properly desmantling each assembly and refixing the same as required.	1 No	250
291	ELEC-5.9.6	Painting of desert cooler with two coats of rubber paint inside of water tank and two coat of synthetic enamelled paint on both side of cooler body, fan body, grills etc.after cleaning with sand paper, complete in all respect as required	1 No	450
292	ELEC-5.9.7	Replacement of cooler pads (heavy) set of 3 no. of size 25" x 27"	1 No	150
293	ELEC-5.9.8	Supply and fixing of Brass float valve of weighing approx. 250 gm, 8" long rod,PVC ball of 4" dia. For desert coler as required.	1 No	200
294	ELEC-5.9.9	Supply and fixing of adjustable M.S.grill 20/22 gauge of size approx. 24" x 26" including painting etc. as required	1 No	360
295	ELEC-5.9.10	Spray painting of ceiling fan of size 900/1200/ 1400 mm with two coats of white/ brown enamelled paint after cleaning with sand paper. Filling etc. as required.	1 No	175
296	ELEC-5.9.11	Rewinding of Heavy duty Exhaust fan motor including all necessary material,The motor is to be wound taking no. of coils,turns and pitch as it was originally wound with required size super enamelled wire with 'E' class insulation material and making connections etc. as required.		
	a	300/ 380 mm sweep	1 No	550
	b	450 mm sweep	1 No	650
	c	600 mm sweep	1 No	1100
297	ELEC-5.9.12	Rewinding of 400 mm table fan/pedestal fan motor including all necessary material,The motor is to be wound taking no. of coils,turnsand pitch as it was originally wound with required size super enamelled wire with 'E' class insulation material and making connections etc. as required.	1 No	350
298	ELEC-5.9.13	Rewinding of single phase motor of 1400 RPM including all necessary material and of the same characteristics as original with required size of super enamelled wire 'E' class insulation material and testing etc. as required.	1 No	
	a	0.5 H.P. To 1.00 H.P.	1 No	700
	b	2.0 H.P	1 No	1150

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
299	ELEC-5.9.14	Rewinding of three phase motor of 1400 to 2800 RPM including all necessary material and of the same characteristics as original with required size of super enamelled wire 'E' class insulation material and testing etc. as required.		
	a	3.0 H.P.	1 No	1700
	b	5.0 H.P.	1 No	2400
	c	7.5 H.P	1 No	2600
	d	10.0 H.P	1 No	3500
	e	12.5 H.P	1 No	3700
	f	15.0 H.P	1 No	4500
300	ELEC-5.9.15	Supply and charging of fresh refrigerant and testing of performance of air conditioner/ fridge/ water cooler of following capacity including capillary and strainer/ filter.		
	a	1.0 TR Window/ Split A.C	1 No	1900
	b	1.5 TR Window/ Split A.C	1 No	2100
	c	2.0 TR Window/ Split A.C	1 No	2500
	d	25/50 / 40/80 Ltr. Water cooler	1 No	2000
	e	60/120 Ltr. Water cooler	1 No	2300
	f	150/150 Ltr. Water cooler	1 No	2800
	g	165 Ltr Refrigerator	1 No	1250
	h	200/210 Ltr Refrigerator	1 No	1800
	i	286/310 Ltr Refrigerator	1 No	2100
301	ELEC-5.9.16	Replacement of defective compressor by company repaired compressor of fridge./water cooler including testing etc. as required. (Carrier/ Kirlosker/ Techam-Shah/ Shriram/ Voltas)		
	a	25/50 / 40/80 Ltr. Water cooler	1 No	6000
	b	60/120 Ltr. Water cooler	1 No	7600
	c	150/150 Ltr. Water cooler	1 No	9000
	d	165 Ltr Refrigerator (Carrier/ Kirlosker/ Techam-Shah/ Shriram/ Voltas/ BPL/ Zenith/ Kelvinator)	1 No	3100
	e	200/210 Ltr Refrigerator (Carrier/ Kirlosker/ Techam-Shah/ Shriram/ Voltas/ BPL/ Zenith/ Kelvinator)	1 No	3800
	f	286/310 Ltr Refrigerator (Carrier/ Kirlosker/ Techam-Shah/ Shriram/ Voltas/ BPL/ Zenith/ Kelvinator)	1 No	4300
302	ELEC-5.9.17	Supply of brandnew Rotary type sealed compressor for Air conditioner Makes:		
	a	1.0/1.5 TR	1 No	8700
	b	2 TR	1 No	9500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
303	ELEC-5.9.18	Replacement of condensing/ cooling coil of copper fins for following capacity A.C./ Water cooler/ Fridge as required		
	a	1.0 TR A.C.	1 No	3100
	b	1.5 TR A.C.	1 No	3500
	c	2.0 TR A.C.	1 No	3900
	d	25/50 / 40/80 Ltr. Water cooler	1 No	2400
	e	60/120 Ltr. Water cooler	1 No	3500
	f	150/150 Ltr. Water cooler	1 No	3500
	g	165 Ltr Refrigerator	1 No	1100
	h	200/210 Ltr Refrigerator	1 No	1200
	i	286/310 Ltr Refrigerator	1 No	1550
304	ELEC-5.9.19	Replacement of overload protection of A.C./ Water cooler as required	1 No	500
305	ELEC-5.9.20	Replacement of thermostat of A.C./ Water cooler/fridge as required.	1 No	450
306	ELEC-5.9.21	Replacement of starting relay of A.C./water cooler/fridge compressor as required	1 No	490
307	ELEC-5.9.22	Spray painting of complete fridge (inside and outside) of 165/ 200/286/310 Ltr. Capacity	1 No	1600
308	ELEC-5.9.23	Supply and fixing of 230V/ 275V, 50Hz rating		
		Starting capacitor		
	a	20-60 micro farad	1 No	200
	b	80-150 micro farad	1 No	400
		Running capacitor	1 No	
	a	2.5/3.15/4.0/6.0 micro farad	1 No	75
	b	8.0 micro farad	1 No	110
	c	10.0 micro farad	1 No	150
	d	15.0 to 36.0 micro farad	1 No	350
309	ELEC-5.9.24	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of split AC unit.	1 Set	1200
310	ELEC-5.9.25	Providing 2 runs of Copper tubes for suction and liquid between indoor and outdoor unit for split/Casseete Air-Conditioner including foaming etc., complete. Make: Copper:Totaline /Nippon /Mandev. Nitrile Insulation: Kflex/ Totaline /Armaflex		
	a	1/2" x 1/4"	1 Mtr	810
	b	5/8" x 1/4"	1 Mtr	890
	c	3/4" x 3/8"	1 Mtr	975
	d	7/8" x 1/2"	1 Mtr	1100
	e	1 1/8" x 5/8"	1 Mtr	1350

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
311	ELEC-5.9.26	Multi speed Fan Motor suitable for 1.0 / 1.5 / 2.0 Ton Window A.C.Unit Makes : Crompton / AU.	1 No	1425
312	ELEC-5.9.27	Air filter suitable for 1.50 Ton Window A.C.Unit P.V.C. / NYLON.	1 No	250
313	ELEC-5.9.28	Air filter suitable for 1.50 Ton Split A.C.Unit P.V.C. / NYLON.	1 No	430
314	ELEC-5.9.29	Fan blade for 1.0 / 1.5 Ton A.C.Machine.	1 No	500
315	ELEC-5.9.30	Installation of Split Air Conditioners. ELEC-5.5.28	1 No	1500
316	ELEC-5.9.31	Removing of existing Split Air Conditioners without damaging to copper pipe.	1 No	600
317	ELEC-5.9.32	Installation of Cassette type Split Air Conditioners.	1 No	4500
318	ELEC-5.9.33	Installation of Tower type Split Air Conditioners.	1 No	3500
319	ELEC-5.9.34	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of 3.5 /4.50 TR Casseete AC unit.	1 Set	1700
		SECTION 6		
	6.1	SWAGED / OCTAGONAL POLES AND GARDEN POSTS		
320	ELEC-6.1.1	Fabrication, supply and transportation of all sizes swaged poles up to site confirming to IS 2713 / 1980 specifications. The pole should be painted with primary coat of red oxide and black bituminous paint up to ground level with base plate, including cost of all materials etc., complete.(Rate per K. G)	1 Kg	65
321	ELEC-6.1.2	Fabrication and Supply of M.S. Poles for garden posts with 'B' class 60.25mm outer dia with base plate and suitable pole cap including cost and conveyance of all material including fixing of luminaire and labour charges etc., complete. (Rate per K. G)	1 Kg	60
322	ELEC-6.1.3	Supply of different sizes of M. S. Pipe brackets (Rate per K.G)	1 Kg	60
		OCTOGONAL POLES		
323	ELEC-6.1.4	Fabrication, Transportation and supply of hot-dip galvanized Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet as per IS specification suitable to withstand the wind speed of 180 KMPH for 7.5 Mtrs height Pole having dimensions Bottom 130 mm,. Top 70mm with 3mm thick, base plate 220 x 220 x 12mm and 4 Nos of M20 x 700 long 'J' bolts along with template. Makes: Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	11200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
324	ELEC-6.1.5	Fabrication, Transportation and supply of hot-dip galvanized Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs height Pole having dimensions Bottom 155 mm,. Top 70mm with 3mm thick, base plate 260 x 260 x 16mm and 4 Nos of M24 x 750 long 'J' bolts along with template. Makes: Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ United	1 No	16200
325	ELEC-6.1.6	Fabrication, Transportation and supply of hot-dip galvanized Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet as per IS specification suitable to withstand the wind speed of 180 KMPH for 10 Mtrs height Pole having dimensions Bottom 175 mm,. Top 70mm with 3mm thick, base plate 275 x 275 x16mm and 4 Nos of M24 x 750 long 'J' bolts along with template. Makes: Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	17800
326	ELEC-6.1.7	Fabrication, Transportation and supply of hot-dip galvanized Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet as per IS specification suitable to withstand the wind speed of 180 KMPH for 12 mtrs height Pole having dimensions Bottom 240mm, Top 100mm with 4mm thick, base plate 320 x320 x20mm and 4 Nos of M24 x 850 long 'J' bolts along with template. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ United	1 No	26000
327	ELEC-6.1.8	Fabrication, Transportation and supply of hot-dip galvanized Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitableboards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180KMPH for 9 Mtrs Mounting height Pole having dimensions Bttom 185 mm,. Top 70mm with 3mm thick, base plate 275 x 275 x 20mm and 4 Nos of M24 x 1000 long 'J' bolts along with templates. Including Supply of 1.5M Dragon type decorative galvanised double arm with PU Painted bracket. Makes : Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ /United	1 No	26500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
328	ELEC-6.1.9	Fabrication, Transportation and supply of hot-dip galvanized Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs Mounting height Pole having dimensions Bottom 185 mm,. Top 70mm with 3mm thick, base plate 275 x 275 x 20mm and 4 Nos of M24 x 1000long 'J' bolts along with templates. Including Supply of 1.5M Dragon type decorative galvanised Single arm with PU Painted bracket. Makes : Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ /United	1 No	22500
329	ELEC-6.1.10	Fabrication, Transportation and supply of hot-dip galvanized PU Paint finish Curved Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs Mounting height Curved Pole having dimensions Bottom 180 mm,. Top 85mm with 3mm thick, base plate 400 x 400 x 20mm and 4 Nos of M24 x 750 long 'J' bolts along with templates. Including Supply of 0.2M long Single arm bracket. Makes : Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ /United	1 No	29150
		POLE BRACKETS		
330	ELEC-6.1.11	Fabrication, Transportation and supply of 1.0 Mtr Length Single Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	1250
331	ELEC-6.1.12	Fabrication, Transportation and supply of 1.50 Mtr Length Single Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	1650
332	ELEC-6.1.13	Fabrication, Transportation and supply of 1 Mtr length Double Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe. MakesBajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	1550
333	ELEC-6.1.14	Fabrication, Transportation and supply of 1.50 Mtr length Double Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	2750

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
334	ELEC-6.1.15	Fabrication, Transportation and supply of 1.5 Mtr Length Single Arm suitable size decorative galvanized Bracket with PU paint colour finish etc complete. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	4500
335	ELEC-6.1.16	Fabrication, Transportation and supply of 1.5 Mtr Length Double Arm suitable size decorative galvanized Bracket with PU paint colour finish etc complete. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	8300
336	ELEC-6.1.17	Fabrication, Transportation and supply of of 1.5mtrs sword type or any decorative double arm bracket with dooms either sides complete with all accessories with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	5000
337	ELEC-6.1.18	Fabrication, Transportation and supply of of 1.5mtrs sword type or any decorative Single arm bracket with dooms either sides complete with all accessories with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	3800
338	ELEC-6.1.19	Fabrication, Transportation and supply of of 1.0mtrs sword type or any decorative double arm bracket with dooms either sides complete with all accessories with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	4000
339	ELEC-6.1.20	Fabrication, Transportation and supply of of 1.0 mtrs sword type or any decorative Single arm bracket with dooms either sides complete with all accessories with MS galvanized 40mm / 50mm dia Pipe. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	3400
		HIGH MAST POLES		
340	ELEC-6.1.21	Fabrication, transportation and supply of 12 Mtrs Polygon High Mast with single section of 3mm thick of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 520mm dia 16mm thick with its accessories. Mast shall be in single section for 12 Mtrs and 2 sections for 16 and 20 Mtrs. Mast shall be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool operating speed of 900 RPM, and necessary cable trailer connections and single speed motor with M24 x 800 mm foundation bolts of required quantity, suitable for 6 luminaires with GLS type aviation twin lamp. Makes: Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	100000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
341	ELEC-6.1.22	Fabrication, transportation and supply of 16 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick with GLS type aviation lamp of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 560mm dia 25mm thick with its accessories. Mast shall be in single section for 12 Mtrs and 2 sections for 16 and 20 Mtrs. Mast shall be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool operating speed of 900 RPM, and necessary cable trailer connections and single speed motor with M24 x 800 mm foundation bolts of required quantity with GLS type aviation twin lamp. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	135000
342	ELEC-6.1.23	Fabrication, transportation and supply of 20 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick of Bottom 410mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 570mm dia 25mm thick with its accessories. Mast shall be in single section for 12 Mtrs and 2 sections for 16 and 20 Mtrs. Mast shall be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool operating speed of 900 RPM, and necessary cable trailer connections and single speed motor with M24 x 800 mm foundation bolts of required quantity with GLS type aviation twin lamp. Makes:Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ Laasma/United	1 No	170000
		FEEDER PILLAR BOXES		
343	ELEC-6.1.24	Supply and fixing of suitable out door type feeder pillar box made with 14 SWG CRCA sheet after 7 tank process including S & F of Legrand / Schnieder / L&T make 40-63A FP MCB, 6 Nos SP MCB's, din chanel, bus bars, 6 Sqmm 3 core copper cable for internal wiring, contactor, connectors and provision for energy meter etc., complete for finished item of work.	1 No	17500
344	ELEC-6.1.25	Supply and fixing of suitable out door type feeder pillar box made with 14 SWG CRCA sheet after 7 tank process including S & F of Legrand / Schnieder / L&T make 40-63A FP MCB, 9 Nos SP MCB's,din chanel, bus bars, 6 Sqmm 3 core copper cable for internal wiring , contactor, connectors and provision for energy meter etc., complete for finished item of work.	1 No	18000
		ERRECTION- HIGH MAST POLES		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
345	ELEC-6.1.27	Earth work excavation with a approximate quantity of 4.0 Cum for erection of 12 Mtrs high mast and refilling with a quantity of 0.53 Cum of PCC 1:4:8, 1.50 Cum M 20 grade concrete and (80 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for erection of High Mast and Carraige etc complete.	1 No	28000
346	ELEC-6.1.24	Earth work excavation with a approximate quantity of 6.0 Cum for erection of 16 Mtrs high mast and refilling with a quantity of 0.65 Cum of PCC 1:4:8, 2.60 Cum M 20 grade concrete and (110 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for erection of High Mast and Carraige etc complete.	1 No	35000
347	ELEC-6.1.25	Earth work excavation with a approximate quantity of 7.0 Cum for erection of 20 Mtrs high mast and refilling with a quantity of 0.75 Cum of PCC 1:4:8, 3.60 Cum M20 grade concrete and (140 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for erection of High Mast and Carraige etc complete.	1 No	45000
348	ELEC-6.1.28	Supply of following sizes thermo plastic cable junctions boxes IP 65 protection with metric knockouts for cable entry including threaded cable gland Make : Hensel		
	a	260X210X116	1 No	1700
	b	210X310X116	1 No	3200
	c	300X450X170	1 No	4200
	d	300X600X170	1 No	5200
		FOUNDATION AND ERRECTION CHARGES OF POLES		
349	ELEC-6.1.29	Erection charges for 7.50 Mts long Octagonal pole on bridge kerb portion with 4 Nos, 8" Anchor bolts with chemical treatment with suitable "J" type bolts etc duly drilling holes to RCC slab with V.C.C. M.15 concrete for suitable base concreting with necessary steel reinforcement work and curing for 7 days etc. including cost and conveyance of all material and all labour charges etc.complete as directed by the department officers.	1 Job	4000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
350	ELEC-6.1.30	Foundation and erection charges with special T&P, for 7.50 Mtrs long Octagonal /Conical pole duly erecting on base plate duly providing 4 Nos foundation bolts with nuts with providing of 0.45Mtr x 0.45Mtrs x1.20 Mtr size M20 cc work vibrated concreting mixing with necessary steel (10kgs) reinforcement and curing for 7 days as directed by the field engineers during execution including excavation of Earth/BT all labour charges and cost and conveyance of materials etc.complete.	1 Job	4700
351	ELEC-6.1.31	Foundation and erection charges with special T&P, for 9.00Mtrs / 10Mtrs long Octagonal / Conical pole duly erecting on base plate duly providing 4 Nos foundation bolts with nuts with providing of 0.60Mtr x 0.60Mtrs x 1.40 Mtr size M20 cc work vibrated concreting mixing with necessary steel (15kgs) reinforcement and curing for 7 days as directed by the field engineers during execution including excavation of Earth/BT all labour charges and cost and conveyance of materials etc.complete.	1 Job	6300
352	ELEC-6.1.32	Foundation and erection charges with special T&P, for 12Mtrs long Octagonal /Conical pole duly erecting on base plate duly providing 4 Nos foundation bolts with nuts with providing of 0.67Mtr x 0.67Mtrs x 1.50 Mtr size M20 cc work vibrated concreting mixing with necessary steel (20kgs) reinforcement and curing for 7 days as directed by the field engineers during execution including excavation of Earth/BT all labour charges and cost and conveyance of materials etc.complete.	1 Job	7800
		GRP POLES		
353	ELEC-6.1.33	Supply and transportation of following glass reinforced polymer (GRP) composite type Conical pole with single arm bracket of length 1Mtr and internal junction box including labour charges etc., complete. Makes: Bajaj / Kemrock / Sumip/Helipole		
	a	...do.... 3.00 Mtrs height, Bottom dia 143mm, Top 76mm, AV thickness 6mm and to withstand maximum wind velocity 180Km/Hr	1 No	8500
	b	...do.... 4.00 Mtrs height, Bottom dia 143mm, Top 76mm, AV thickness 6mm and to withstand maximum wind velocity 180Km/Hr	1 No	10800
	c	...do.... 6.00 Mtrs height, Bottom dia 143mm, Top 76mm, AV thickness 6mm and to withstand maximum wind velocity 180Km/Hr	1 No	13500
	d	...do.... 8.00 Mtrs height, Bottom dia 193mm, Top 76mm, AV thickness 6mm and to withstand maximum wind velocity 180Km/Hr	1 No	17400
	e	...do.... 9.00 Mtrs height, Bottom dia 210mm, Top 76mm, AV thickness 6mm and to withstand maximum wind velocity 180Km/Hr	1 No	19000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	f	...do.... 10.00 Mtrs height, Bottom dia 227mm, Top 76mm, AV thickness 6mm and to withstand maximum wind velocity 180Km/Hr	1 No	27500
354	ELEC-6.1.34	Supply and transportation of base bracket suitable for glass reinforced polymer (GRP) composite type pole including labour charges etc., complete. Makes: Bajaj / Kemrock / Sumip / Helipole		
	a	...do.... For 3.00 Mtrs Pole	1 No	1550
	b	...do.... For 4.00 Mtrs Pole	1 No	1550
	c	...do.... For 6.00 Mtrs Pole	1 No	1850
	d	...do.... For 8.00 Mtrs Pole	1 No	2150
	e	...do.... For 9.00 Mtrs Pole	1 No	4100
	f	...do.... For 10.00 Mtrs Pole	1 No	5100
	6.2	LT PANEL AND ACCESSORIES		
355	ELEC-6.2.1	Supply Installation Testing and commissioning of free standing floor mounted dust and vermin proof compartmentalised cubical panel made out of CRCA sheet, required hardware, duly painted by two coats of zinc/red oxide primer followed by Powder coated / epoxy / PU painted with phosphatisation in grey or required shade after rinsing. The panel having PU/Neoprene rubber gasket of not less than 3mm thickness, separate detachable, gland plate M.S. base channel, hinged door with locking arrangement for equipment/switchgear. Thickness of sheet shall not be less than 1.6mm up to 600mm length/width of any compartment and be of 2.0mm above 600mm. Load bearing structure shall be of 2.0mm thick sheet supported by base M.S. channel if required. Side walls and cable alley compartments having bolted type doors with detachable extension type structure (only outer area on all sides shall be measured and panel to be fabricated from CPRI approved fabricator).	1 sqm	3900
356	ELEC-6.2.2	Supply and fixing of..... bus bar by means of SMC / DMC type insulator, high tensile nuts and bolts spring washers in existing panel including bending , cutting in required shape and size and colour coding with heat shrinkable PVC sleeves		
	a	Electrolytic grade aluminium bus bar	kg	375
	b	Electrolytic grade copper bus bar	kg	750
357	ELEC-6.2.3	Supply and Fixing of (0-500) V range Volt meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required. Make: Conzerve/Elmeasure/Meco/HPL/L&T/socomec		
	a	Analog type (96 mm x 96 mm)	1 No	850
	b	Digital type	1 No	1900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
358	ELEC-6.2.4	Supply and Fixing of CT operated direct reading type Ammeter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required. Make: Conzerve/Elmeasure/ Mec/HPL/L&T/Schneider/AE/Socomec		
		Analog type (96 mm x 96 mm)		
	a	Below 500 A	1 No	850
	b	Above 500A	1 No	850
		Digital type		
	c	Below 500 A	1 No	1900
	d	Above 500 A	1 No	1900
359	ELEC-6.2.5	Supply and Fixing of Current Transformer , with all necessary support in existing panel including connection etc. as required Make: Kappa/L&T/Seimens/C&S/Schneider		
	a	up to 150 / 5 Ratio , 5 VA , class 1 accuracy	1 No	475
	b	from 200 / 5 to 400/5 Ratio , 10 VA , class 1 accuracy	1 No	700
	c	from 500 / 5 to 1600/5 Ratio , 15 VA , class 1 accuracy	1 No	950
	d	from 2000 / 5 to 3200 /5 Ratio , 15 VA, class 1 accuracy	1 No	1500
360	ELEC-6.2.6	Supply and Fixing of selector switch for voltmeter (4 position) including making connection etc. as required Make: L&T /C&S/SALZER/HPL	1 No	340
361	ELEC-6.2.7	Supply and Fixing of CT linked selector switch of 10 A for Ampere meter (4position) including making connection etc. as required Make: L&T /C&S/SALZER/HPL	1 No	375
362	ELEC-6.2.8	Supply and fixing of single phase Electronic energy Meter,.....AC,50 HZ as per IS13010 up to 40A range with 200% over load capacity complete with connections etc., complete on the existing board. Makes: CONZERVE / ELMEASURE / MECO / HPL / HAVELLS/L&T.		
	a	Single Phase	1 No	1000
	b	Three Phase	1 No	2800
363	ELEC-6.2.9	Supply and Fixing of 240/220 V, LED (22.5 mm dia) Pilot lamp with integral circuit, terminal block, including connection etc. as required		
	a	Red/yellow/Green colour	1 No	120
	b	Blue colour	1 No	200
364	ELEC-6.2.10	Supply and Fixing of Tap-off boxes suitable for following size of approved design		
	a	up to 95 sq. mm.(3.5/4 core)	1 No	400
	b	from 120 sq. mm. to 185 sq. mm.(3.5/4 core)	1 No	700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
365	ELEC-6.2.11	Supply and Fixing of energy analyser (multy function energy meter) with LCD/LED display capable of minimum 20 numbers electrical parameters display with 1A/5A CT input for LV/ HV network, RS 485 communication port etc. complete in all respect.	1 No	10500
366	ELEC-6.2.12	Supply Installation Testing and commissioning of self healing MPP/MP type shunt capacitor (banks) conforming to IS:13340-41 / IEC :831-1&2 in existing panel or parallel with load terminals , the capacitor shall be fitted with discharge resistors, pressure sensitive disconnecter (PSD) and shall have dissipation factor less than 0.0025 at 50 Hz and total wattage loss less than 0.5 Watt per KVAR. including making connections with suitable capacity conductors/cables testing as required.Makes: L&T/Seimens/Epcos/Schneider/Havells		
	a	Standard duty Single phase 250 V / Three phase 440 V, 50 Hz capacitor (Bank)	1 KVAR	200
	b	Heavy duty Three phase 440 V , 50 Hz capacitor (Bank)	1 KVAR	300
367	ELEC-6.2.13	Supply Installation Testing and commissioning of microprocessor based intelligent power factor correction relay having sensitivity up to 50 milli Amp secondary current and following way, self analysing auto c/k setting according to targeted power factor setting, the relay shall have minimum three digit display unit for display of real power factor, targeted power factor, lag/lead capacitor switching status, alarm output for under current, over current, insufficient compensation, indication of switching on units, auto/manual status, and shall have over load protection, no volt release etc. as required Makes: L&T/Seimens/Epcos /Schneider/ ABB/Neptune		
		6 to 14 stage - sensitivity upto 50 milli Amp	1 No	18500
368	ELEC-6.2.14	Supply and Fixing of Cam operated rotary switches on existing panel with 2 way and off position makes: L&T (SALZER)/ABB/Schneider/Seimens/C&S/HPL		
		one pole		
	a	16 A	1 No	350
	b	32 A	1 No	450
	c	63 A	1 No	650
		Two pole		
	d	16 A	1 No	400
	e	32 A	1 No	530
	f	63 A	1 No	875
		Three pole		
	g	16 A	1 No	500
	h	32 A	1 No	700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	i	63 A	1 No	1250
		Four pole		
	j	16 A	1 No	500
	k	32 A	1 No	750
	l	63 A	1 No	1400
369	ELEC-6.2.15	Supply and Fixing of ac operated heavy duty 230 /440 Volt power contactor conforming to IS:13947-4-1/IEC:947-4-1 having provision of mechanical interlocking, Din rail mounting type including making connections, testing etc. as required Make:Seimens/ABB/Schneider/L&T/C&S/HPL/Havells		
		3 pole AC3 Rating contactors		
	a	Up to 12 Amp	1 No	800
	b	13 to 32 Amp	1 No	1325
	c	35 to 40 Amp	1 No	1600
	d	41 to 50 Amp	1 No	3500
		4 pole AC 1 Rating contactors		
	e	Up to 25 Amp	1 No	1000
	f	26 to 32 Amp	1 No	1200
	g	33 to 45 Amp	1 No	2000
	h	46 to 60 Amp	1 No	4200
370	ELEC-6.2.16	Supply and Fixing of 440 Volt 3 pole capacitor (AC 6 B) duty contactor with 3 no. early make and post break auxiliary contacts in series with quick dischargedamping resistors/ reactors to limit the inrush current ,conforming to IS:13947-4-1/IEC:947-4-1, Din rail mounting type ncluding making onnections, testing etc. as required. suitable for following capacity capacitor bank Make:Seimens/ABB/Schneider/L&T/C&S/HPL/Havells		
	a	Up to 6 KVAR	1 No	1600
	b	7 to 10 KVAR	1 No	1800
	c	11 to 20 KVAR	1 No	2700
	d	21 to 25 KVAR	1 No	3600
	e	30 KVAR	1 No	5200
	f	40 KVAR	1 No	8300
	g	50 KVAR	1 No	9600
371	ELEC-6.2.17	Supply and Fixing of thermal over load relay with built in single phase protection and having at least 1NO & 1NC contacts, manual /auto reset facility including making connection testing etc. as required Make:Seimens/ABB/Schneider/L&T/C&S/HPL/Havells		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	Up to 14 A	1 No	1200
	b	15 to 20 A	1 No	1600
	c	21 to 30 A	1 No	2300
	d	31 to 40 A	1 No	2600
372	ELEC-6.2.18	Supply and Fixing of push button actuators and integral contact block of dia. 22.5 mm including making connection etc. as required Make:Seimens/ ABB/ Schneider/L&T/C&S/HPL		
	a	Non luminous type	1 No	95
	b	Luminous type	1 No	130
	6.3	SUB STATION EQUIPMENT AND TRANSFORMERS		
373	ELEC-6.3.1	Supply, Installation, Testing & Commissioning of HT metering cubical panel as approved By DISCOMs fabricated out of 14 SWG CRCA sheet steel in two compartment & MS angle of size 60mmX6mm having provision for Following:	1 No	24000
		(i) Provision for fixing Trivector Meter (To be supplied by DISCOMs)		
		(ii) Provision for fixing of combined CT PT Set (To be supplied by DISCOMs)		
		(iii) TT Block		
		(iv) 6mm Bakelite sheet on all sides.		
		33 KV HT Panel (drawout type)		
374	ELEC-6.3.2	Supply, Installation, Testing and Commissioning of indoor type floor mounted metal clad, 33 KV 800A VCB Panel with 3 Nos. VCBs suitable for 50Hz 3-phase system, suitable for 31.5kA/3sec short circuit withstand capacity & 31.5kA/1sec Internal Arc capacity. Switchgear Panel enclosure of sheet steel preferably Aluzinc, dust tight, vermin proof, totally enclosed cubicle floor mounting, free standing type with single break, horizontally drawout type breaker with trip free mechanism as per latest standard i.e. IS/IEC 62271-200 as amended up to date and as per Technical specifications, IP4X for VCB Panel enclosure. Switchgear Panel shall be electrically & mechanically interlocked as per IEC 62271-1, full voltage insulated copper Busbar with heat shrinkable sleeving, complete with suitable metering & protection devices, breaker featured with mechanical ON-OFF indicator with hand trip device and all accessories such as shunt trip coil, motorized & manually operated spring charging mechanism, emergency trip push buttons, auxiliary switch of 2NO + 2NC, interconnections, space heaters, panel earthing etc. and equipped with following switchgear and accessories including connection suitable for 3x185 to 3x 400 sqmm XLPE 33 kV cable (cable entry from bottom) to be connected through heat shrinkable jointing material etc as required. (Note - Cost of end termination not included in this item.) Makes:ABB/Schneider/Seimens/Kirloskar	1No	2655000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		<u>INCOMER 1 No. each comprising the following</u>		
		1 No. 800 Amp. VCB. 31.5KA		
		1 No. Integral Earth switch for line side earthing		
		3 No. dual core CTs 600A/1/1A of 7.5VA burden max and accuracy Class 0.5 for metering and class 5P10 for protection		
		3 No. Cast Resin 33000V/v3/110V/v3/110V/v3 PT Class 0.5/3P accuracy and 30VA burden max with and protection fuses / MCB.		
		1 No. Digital voltmeter with selector switch.		
		1 No. Digital Ammeter with selector switch.		
		1 No. Microprocessor based numerical relays with O/L, E/F and S/C protection with Integrated Arc sensing feature alongwith trip/lockout / antipumping / aux. relays.		
		1 No. Multi-function meter.		
		Set of MCBs for Panel AC/DC		
		Set of MCBs for Main AC/DC		
		Set of Indication lamps LED types		
		TNC Switch, L-R Switch, Pushbuttons for ON-OFF		
		<u>OUTGOING 2 Nos. each comprising the following</u>		
		1 No. 800 Amp. VCB.31.5KA		
		1 No. Integral Earth switch for line side earthing		
		3 No. dual core CTs 300A/1/1A of 7.5VA burden max and accuracy Class 0.5 for metering and class 5P10 for protection		
		1 No. Digital Ammeter with selector switch.		
		1 No. Microprocessor based numerical relays with O/L, E/F and S/C protection with Integrated Arc sensing feature alongwith trip/lockout / antipumping / aux. relays.		
		Set of MCBs for Panel AC/DC		
		Set of Indication lamps LED types		
		TNC Switch, L-R Switch, Pushbuttons for ON-OFF		
		11KV HT Panel (drawout type)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
375	ELEC-6.3.3	Supply, Installation, Testing and Commissioning of indoor type floor mounted metal clad, 11 KV 800A VCB Panel with 3 Nos. VCBs suitable for 50Hz 3-phase system, suitable for 26.3kA/3sec short circuit withstand capacity & 26.3kA/1sec Internal Arc capacity. Switchgear Panel enclosure of sheet steel preferably Aluzinc, dust tight, vermin proof, totally enclosed cubicle floor mounting, free standing type with single break, horizontally drawout type breaker with trip free mechanism as per latest standard i.e. IS/IEC 62271-200 as amended up to date and as per Technical specifications, IP4X for VCB Panel enclosure. Switchgear Panel shall be electrically & mechanically interlocked as per IEC 62271-1, full voltage insulated copper Busbar with heat shrinkable sleeving, complete with suitable metering & protection devices, breaker featured with mechanical ON-OFF indicator with hand trip device and all accessories such as shunt trip coil, motorized & manually operated spring charging mechanism, emergency trip push buttons, auxiliary switch of 2NO + 2NC, interconnections, space heaters, panel earthing etc. and equipped with following switchgear and accessories including connection suitable for 3x185 to 3x 400 sqmm XLPE 11kV cable (cable entry from bottom) to be connected through heat shrinkable jointing material etc as required. (Note - Cost of end termination not included in this item.) Makes:ABB/Schneider/Seimens/Kirloskar	1No	1345000
		<u>INCOMER 1 No. each comprising the following</u>		
		1 No. 800 Amp. VCB. 26.3KA		
		1 No. Integral Earth switch for line side earthing		
		3 No. dual core CTs 600A/1/1A of 7.5VA burden max and accuracy Class 0.5 for metering and class 5P10 for protection		
		3 No. Cast Resin 11000V/v3/110V/v3/110V/v3 PT Class 0.5/3P accuracy and 30VA burden max with and protection fuses / MCB.		
		1 No. Digital voltmeter with selector switch.		
		1 No. Digital Ammeter with selector switch.		
		1 No. Microprocessor based numerical relays with O/L, E/F and S/C protection with Integrated Arc sensing feature alongwith trip/lockout / antipumping / aux. relays.		
		1 No. Multi-function meter.		
		Set of MCBs for Panel AC/DC		
		Set of MCBs for Main AC/DC		
		Set of Indication lamps LED types		
		TNC Switch, L-R Switch, Pushbuttons for ON-OFF		
		<u>OUTGOING 2 Nos. comprising the following</u>		
		1 No. 800 Amp. VCB. 26.3KA		
		1 No. Integral Earth switch for line side earthing		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		3 No. dual core CTs 300A/1/1A of 7.5VA burden max and accuracy Class 0.5 for metering and class 5P10 for protection		
		1 No. Digital Ammeter with selector switch.		
		1 No. Microprocessor based numerical relays with O/L, E/F and S/C protection with Integrated Arc sensing feature alongwith trip/lockout / antipumping / aux. relays.		
		Set of MCBs for Panel AC/DC		
		Set of Indication lamps LED types		
		TNC Switch, L-R Switch, Pushbuttons for ON-OFF		
		Oil Immersed TRANSFORMERS		
376	ELEC-6.3.4	Supply and Transportation of copper wound Transformers 33/0.433 KV, Three Phase, 50 Hz, DYN 11, ONAN type , Standard accessories, winding temperature rise of 45°C/40°C first fill oil, having permissible total loss values not exceeding 7.5%of the maximum total loss values for 33 KV as per energy efficiency level - 2 at basic Insulation level conforming to ISS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 described as above with Cable box on HV side and Bus duct on LV Side , ON load Tap changer(OLTC) With Remote Tap Change Cicuit (RTCC) & Automatic Voltage Regulator (AVR) etc., complete and as per the following continuous rating Make:ABB/ALSTOM/SEIMENS/Kirloskar/Voltamp/ Esennar		
	a	630 KVA	1 No	980000
	b	1000 KVA	1 No	1250000
	c	1250 KVA	1 No	1500000
	d	1600 KVA	1 No	1860000
	e	2000 KVA	1 No	2300000
377	ELEC-6.3.5	Supply and Transportation of copper wound Transformers 11/0.433 KV, Three Phase, 50 Hz, DYN 11, ONANtype , Standard accessories, winding temperature rise of 45°C/40°C first fill oil, having permissible total loss values not exceeding 7.5%of the maximum total loss values for 11 KV as per Energy Efficiency Level - 2 at basic Insulation level conforming to ISS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 described as above with Cable box on HV side and Bus duct on LV Side , ON load Tap changer(OLTC) With Remote Tap Change Cicuit (RTCC) & Automatic Voltage Regulator (AVR) etc., complete and as per the following continuous rating Make:Schneider/Kirloskar/Voltamp/ Esennar/ Toshiba/ KPEL/ Powertech		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	100 KVA	1 No	310000
	b	160 KVA	1 No	420000
	c	250 KVA	1 No	650000
	d	315 KVA	1 No	720000
	e	500 KVA	1 No	950000
	f	630 KVA	1 No	1075000
	g	1000 KVA	1 No	1285000
		Dry Type transformers		
378	ELEC-6.3.6	Supply ,Transportation of cast Resin (Dry Type) indoor type copper double wound 33KV/0.433 KV, Three Phase 50 HzTransformers desingned and manufactured as per IS 11171/IEC 60726 , ANSI and NEMA Standards with all standard fittings,connected Delta on Primary side and Star on Secondary side with additional neutral brought out on load side 33000/433V with HV off on load tap changing +5% to -15% temperature rise by the resistance 90 degrees with terminal arrangement Cable box on HV side and Bus duct on LV Side with off circuit Tap links etc.,, complete Make:ABB/ALSTOM/SEIMENS/Crompton/Kirloskar/Voltamp/ Esennar		
	a	1000 KVA	1 No	2650000
	b	1250 KVA	1 No	3300000
	c	1600 KVA	1 No	3990000
	d	2000 KVA	1 No	4800000
	e	2500 KVA	1 No	5400000
379	ELEC-6.3.7	Supply ,Transportation of cast Resin (Dry Type) indoor type copper double wound 11KV/0.433 KV, Three Phase 50 HzTransformers desingned and manufactured as per IS 11171/IEC 60726 , ANSI and NEMA Standards with all standard fittings,connected Delta on Primary side and Star on Secondary side with additional neutral brought out on load side 11000/433V with HV off on load tap changing +5% to -15% temperature rise by the resistance 90 degrees with terminal arrangement Cable box on HV side and Bus duct on LV Side , with off circuit Tap links etc.,, complete . Make:ABB/ALSTOM/SEIMENS/Crompton/Kirloskar/Voltamp/ Esennar		
	a	250 KVA	1 No	620000
	b	315 KVA	1 No	720000
	c	500 KVA	1 No	875000
	d	630 KVA	1 No	1050000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	e	750 KVA	1 No	1200000
	f	1000 KVA	1 No	1400000
	6.4	MAINTENANCE AND REPAIRS OF TRANSFORMERS		
380	ELEC-6.4.1	Carryout routine maintenance, servicing and testing of 630A to 1000A L.T.ACB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the ACB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies	1 No	5000
381	ELEC-6.4.2	Carryout routine maintenance and servicing of LT.Cubical pannel board having approximately 15 to 22 Nos of switches cleaning with power blower and servicing the contacts, tightning the connection of incoming and outgoing cables, and checking the operating machanism for smooth functioning of switches and putting them in smooth working condition.	1 No	3000
382	ELEC-6.4.3	Routine maintenance of transformer, including testing of insulation resistance, oil break down strength. Reconditioning / replacement of silicazel, cleaning of transformer and topping upto oil level if required (extra cost will be paid for oil).	1 No	4500
383	ELEC-6.4.4	Testing of Transformer oil for dielectric breakdown strength.	1 No	600
384	ELEC-6.4.5	Removing the existing transformer from the plinth / Pole and refixing the standby transformer of following capacity including connections etc., complete.....		
	a	up to 315 KVA	1 No	3500
	b	500 / 1000 KVA	1 No	4500
385	ELEC-6.4.6	Replacing old and unserviceable gasket of top cover plate of transformer having following capacity. -.....		
	a	up to 315 KVA	1 No	750
	b	500 / 1000 KVA	1 No	1000
386	ELEC-6.4.7	Replacing old and unserviceable gasket of bushing for the following Transformer capacity. -.....		
	a	up to 315 KVA HT,	1 No	350
	b	500 / 1000 KVA HT,	1 No	750
	c	up to 315 KVA LT,	1 No	900
	d	500 / 1000 KVA LT,	1 No	1500
387	ELEC-6.4.8	Replacement the H T / L. T burntout winding coils of distribution transformer including rewinding, varnishing and vaccuming etc.,duly retaining the removed burnt winding coils by the Contractor / Firm-		
	a	For copper coils	1 Kg	600
	b	For aluminium coils	1 Kg	400

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
387	ELEC-6.4.9	Insulating HT / LT copper / aluminium coils for Transformers.	1 Kg	325
388	ELEC-6.4.10	Painting to transformer with 2 coats Zinchromate red oxide duly scraping existing paint followed by 2 coats of hammerton grey paint etc., complete. -.....		
	a	Upto 500 KVA	1 No	3500
	b	630 / 1000 KVA	1 No	4500
389	ELEC-6.4.11	Replacing for distribution Transformer by new one.		
	a	H.T bushing	1 No	350
	b	H.T bushing with metal parts	1 No	400
	c	L.T bushing Upto 315 KVA	1 No	200
	d	L.T bushing 500 / 1000 KVA	1 No	250
	e	L.T bushing rod with metal parts up to 315 KVA	1 No	500
	f	L.T bushing rod with metal parts 500/1000 KVA	1 No	1850
390	ELEC-6.4.12	Drying the repaired transformer with appropriate heat / air of following capacity of transformers.-		
	a	Upto 315 KVA	1 No	4400
	b	500 / 1000KVA	1 No	5500
391	ELEC-6.4.13	Loading, transportation and Unloading of transformer from site to Workshop or vice verse.		
	a	Upto 500 KVA	1 No	4500
	b	630 / 1000 KVA	1 No	7000
392	ELEC-6.4.14	Supply of new and tested transformer oil as per IS-335 - 1972 (per Ltr)	1 Ltr	120
393	ELEC-6.4.15	Filtration of transformer oil as per ISS specifications filters to dielectric strength above 40KV		
	a	at site. (per Ltr) excluding transportation	1 Ltr	10
	b	at workshop (per Ltr)	1 Ltr	7
	6.5	OVERHEAD LINES& LINE MATERIALS		
394	ELEC-6.5.1	Supply and transportation of .....PSCC Poles		
	a	8.0 Mtr ,Working load-140 Kgs	1No	2150
	b	8.0 Mtr ,Working load-200 Kgs	1No	2275
	c	9.1 Mtr ,Working load-280 Kgs	1No	4150
395	ELEC-6.5.2	Supply and transportation of 9 mtr length .....RS Joist Poles		
	f	150 x 75 mm(Wt of the pole-140 Kgs)	1No	8600
	g	175 x 85 mm(Wt of the pole-215Kgs)	1No	13250
	h	150 x 150 mm(Wt of the pole-333 Kgs)	1No	20500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
396	ELEC-6.5.3	Supply and erection of GI stay set of dia..... including stay clamps , turn buckle and GI stay wire tight end through strain insulator including excavation of pit and cc work etc.,complete		
	a	20mm,2.4 mtr long stay rod and anchor plate 380mmx380mmx6.4mm	1 set	1850
	b	16mm,1.8 mtr long stay rod and anchor plate 380mmx380mmx6.4mm	1 set	1400
397	ELEC-6.5.4	Supply and fixing of 11KV -V- cross arms with .....duly welded with necessary clamping arrangements etc., complete		
	a	75x40 mm MS channel including 4 nos 50 x 50 x6 mm packing plates (9 Kgs)	1 No	1200
	b	65 x65 x6 MS angle (8.2 Kgs)	1 No	850
398	ELEC-6.5.5	Supply and fixing of LT 3 phase 4 wire cross arm of length 3' 8" with..... and necessary clamping arrangements ,cutting ,drilling and welding etc., complete		
	a	50 x 50 x6 mm MS angle (wt 5.75 Kgs)	1 No	415
	b	65 x65 x6 MS angle (wt 7 Kgs)	1 No	490
399	ELEC-6.5.6	Supply and fixing of LT 3 phase 5 wire cross arm of length 4' 5" with..... and necessary clamping arrangements ,cutting ,drilling and welding etc., complete		
	a	50 x 50 x6 mm MS angle (wt 7.30Kgs)	1 No	535
	b	65 x65 x6 MS angle (wt 9.60 Kgs)	1 No	675
400	ELEC-6.5.7	Supply and fixing of LT single phase 3 wire cross arm with 50 x 50 x6 mm MS angle of 2' 5" (wt 4.20 Kgs) and necessary clamping arrangements ,cutting ,drilling and welding etc., complete		330
401	ELEC-6.5.8	Supply and fixing of 11 KV pin Insulator (IS 731/1971) with minimum creepage distance of 300 mm on existing cross arm including all accessories like Hot dip GI spindle and nuts etc.,	each	200
402	ELEC-6.5.9	Supply and fixing of LT pocelain pininsulator as per IS 1447-1997 suitable for working voltage 1100 V including all accessories like Hot dip GI spindle and nuts etc.,		
	a	100 x 65 mm	each	80
	b	100 x 85 mm	each	90
403	ELEC-6.5.10	Supply and fixing of LT pocelain shackle insulator as per IS 1443-1979 suitable for working voltage 1100 V including all accessories like Hot dip GI spindle and nuts etc.,		
	a	75 x 90 mm	each	140
	b	100 x 110 mm	each	170

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
404	ELEC-6.5.11	Supply and fixing of distribution type lightning arrester 11 KV 5 kA as per IS 3070 with mounting base on the existing DP structure	each	2500
405	ELEC-6.5.12	Supply and fixing of 100 A 11 KV Horn Gap fuse set as per IS 9385 on existing DP structure with 6 nos 24 KV /22 KV post Insulators(IS 5350, Hot dipped Hard ware, fuse wire of required size etc., complete	each	5500
406	ELEC-6.5.13	Supply and fixing of 11 KV danger plates on the existing poles	each	100
407	ELEC-6.5.14	Supply and fixing of 11 KV ,400 A 3 phase central post rotating double break type AB switch(isolate) as per IS 9921) without earth blade,gang operated ,Hozizontal type,operating mechanism with GI spring loaded reverse loop type fixed contact,solid HD electrolytic copper tubular moving contact with silver/Nicle plated at end points,9 Nos post insulators of 12 Kv(IS 2594 and IS 5350) ,Hot Dip galvenizing hardware,GI pipe,Nuts and bolts etc., complete.,	each	18000
408	ELEC-6.5.15	Supply and Transportation of Over Head Conductor as per IS 398 (PART - II) : 1996		
	a	7/3.55 ACSR Rabbit (214 Kg/KM)	1KM	
	b	7/2.59 ACSR weasel (128 Kg/KM)	1KM	
	c	7/2.11 ACSR squirrel (85 Kg/KM)	1KM	
	d	100 sqmm AAA	1KM	50953
	e	55 sqmm AAA	1KM	29490
	f	34 sqmm AAA	1KM	17685
409	ELEC-6.5.16	Supply and erecting fencing section having size 2045 mt height from ground level and 1.2 mt width by using angle iron size 50 x50 x6 mm erected in cc foundation 15 x15x40 cm deep . The section of the frame shall be fitted with flat iron support of size 25 x 6 mm on top , bottom an dmid way and chain link jolley of 3.26 mm dia /10 SWG GI hard wire mesh of 50 x50 mm to the angle iron at every distance of 30 cm , by iron studs complete duly painted with one coat of red oxide and 2 coats of aluminium paint,	1 No	As per DATA
410	ELEC-6.5.17	Supply and erecting double leaf hinged door each 150 cm in width and 180 cm in height using 40 mm dia B grade ISI mark GI pipe from all 4 sides with necessary bends and cross supports of angle iron 45 X45 X5 mm with the door leaf covered with chain links jolley 50 X 50 mm made from 3.26 mm dia/10 SWG Gi wire with necessary flat iron covering all round with necessary no of spikes of size 10 mm dia at top and bottom at 150 mm apart to match the height of fencing. The door shall have latches and side channel of 100 X50 X5 mm regidly welded for providing locking arrangement Godrej/Navtal make medium size lock with duplicate keys, fencing completely erected and painted with anti corrosive red oxide paint and 2 coats of prescribed enamel paint/silver paint. The Channel iron of size 150X75 mm by 2.5 mtr long shall be provided and erected at both sides of gate.	1 No	As per DATA

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
411	ELEC-6.5.18	Supply and erecting 50 X50X6 mm angle iron corner support 0.5 mt way from the fence supports fixed at the middle fencing frame and other side in cc foundation 15 X15X 40 cm complete duly painted with 1 coat of red oxide and 2 coats of alluminum paint.	1 No	As per DATA
412	ELEC-6.5.19	Providing and spreading HBG metal of size 40 mm size for 100 mm depth above the ground level.		As per DATA
	6.6	LIGHTENING PROTECTIVE SYSTEM		
		Advanced LPS		
413	ELEC-6.6.1	Supply and Transportation of advanced lighting protection with 205 -580mm height and 4.60 - 4.940 kgs, and having Rod length 760mm, weight 1.795 kgs with stainless steel rod, working on the principle of (ESE) Early Streamer Emission technology, having a coverage radius of 79 Mts under level 1 protection and 107 Mtrs radius under level 4 protection when mounted on 5 - 15 mts height of existing lattice tower giving level 1 protection and anticipation emission time of 60 - 72 micro seconds. The ESE should be manufactured according to standard NFC 17-102 : 2011 and CE certified including functional integrity etc Complete. Make : EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND	1 No	110000
414	ELEC-6.6.2	Installation and commissioning of advanced lighting protection systems which includes 1. Laying of CC Bed 2. Installation of Lighting Rod 3. Laying of Down conductor 4. Installation of Counter 5. Installation of GI Mast with stay wire. 6. Installation of Earth Electrodes 7. Interconnection between the Electrodes 8. Termination of down conductor to earth bus etc complete.	1 No	27000
415	ELEC-6.6.3	Supply of electro-Mechanical counter Make: EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND	1 No	14500
416	ELEC-6.6.4	Supply of G.I mast of 5 Meters length, 80mm + 50mm dia, with FRP Collar (Insulating Bush), Base Plate and supporting Guy wire (Stay Wire) with all fixing accessories	1 Set	5800
417	ELEC-6.6.5	Supply of down conductor of 1x70sqmm single core PVC insulated unarmoured copper conductor cable of ISI mark. Makes: Finolex / Polycab / Havells / RPG / RR Kabel/KEI/Gloster/Tamra	1 Mtr	575

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
418	ELEC-6.6.6	Supply of IEC 62561-7 compliant Eco-friendly, Maintenance free, anti-corrosive, lead-free, super conductive, mineral based high-grade earthing compound, To enhance soil conductivity. With resistance <0.12 ohms-meter, Sulphur Free, Should be tested as per IEC-62561-7 for resistance Toxic Elements, Leachable elements etc. 25 Kg Bag Make: EARTHPLUS /CIRPROTEC / INDALAC / INGESCO	1 No	2200
419	ELEC-6.6.7	Supply of Bentonite Moisture Retaining Powder 30 Kg Bag	1 No	160
420	ELEC-6.6.8	Supply of Concrete Earth Pit of Dimensions: Width: 320 mm, Length: 320 mm, Height: 192mm, Weight 30 Kgs, Load bearing Capacity: 5000 Kgs	1 No	1400
		CONVENTIONAL LPS AS PER IS/IEC 62305		
		Air Terminal		
421	ELEC-6.6.9	Supply, installation, testing and commissioning of 8 mm Aluminum Round Conductor complete as per requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305)	1 RM	80
422	ELEC-6.6.10	Supply, installation, testing and commissioning of Roof conductor holder for parapet- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance	each	45
423	ELEC-6.6.11	Supply, installation, testing and commissioning of Polyamide roof cable holder for flat roof: DIN 48829 Form B1. Closed form with bottom. Filling weight 1Kg (frost-resistant concrete). Sleeve from polyethylene, black @ 1 meter distance.	each	120
424	ELEC-6.6.12	Supply, installation, testing and commissioning of Fang Fix Junior system - Inclusive of Al interception rod of 1Mtr length(10mm dia) , Quick mounting of the interception rod in the base using plug technology	each	1500
425	ELEC-6.6.13	Supply, installation, testing and commissioning of cross universal connector: For T and cross connection, to route vertical down conductor /mesh formation made of hot dipped galvanised iron with necessary screws etc as required. Installed with 4 hexagonal bolts M8*25 with M8 hexagonal nuts	each	120
426	ELEC-6.6.14	Supply, installation, testing and commissioning of expansion piece with connector: For equalising temperature related length changes. Necessary on conductors length over 20 meters. For round conductor Rd 8/ALU.Connector: For T cross and parallel connectors. Quick installation using hexagonal bolt M10X30 high-grade hot dip galvanised. Conforms to the requirements according to DIN VDE 0185-305 (IS-IEC 62305)(2nos/expansion piece).	each	360

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		DOWN CONDUCTOR		
427	ELEC-6.6.15	Supply, installation, testing and commissioning of 8 mm Aluminum Round Conductor complete as specified in drawing & Meets the requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305)	1 RM	80
428	ELEC-6.6.16	Supply, installation, testing and commissioning of Roof conductor holder for parapet- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance	each	45
429	ELEC-6.6.17	Supply, installation, testing and commissioning of Test Joint (Folding Clamp) suitable to connect 8mm round conductor and max by 30x3 mm GI strip as specified in drawing and directed by Engineer	each	280
430	ELEC-6.6.18	Supply, installation, testing and commissioning of Lightnig counter - To count no of lightning strike & it can record the date and time of the lightning incident also tested as per IEC 62561-6.	each	15000
	6.7	EARTHING		
431	ELEC-6.7.1	Providing earth electrode of low carbon steel rod, UL listed of 17.2 mm dia, 3 Mtr long, coated with copper of 254 microns thickness, CPRI tested for short time current withstand test of 25 kA, coating thickness, environmental test (Salt Mist Test), Bend test, Tensile strength, Yield / tensile ratio, Electrical Resistivity test, complete with clamps and 2 bags of Earthplus ULTRA high grade earthing compound IEC 62561-7 complaint Eco-friendly, Maintenance free, anti corrosive, lead-free, super conductive, mineral based high-grade earthing compound, to enhance soil conductivity. With resistance <0.20 ohms-meter, should be leach proof & sulphur free complete with earth inspection chamber of dimensions : Width : 320 mm x 320 mm, Height : 192 mm, Weight : 30 Kgs, Load bearing capacity :5000 Kgs	1 No	9500
432	ELEC-6.7.2	Providing earthing as per IS 3043 with perforated 3 mtr long 40 mm dia B class GI pipe including all accessories like nuts bolts reducer,nipple, wire meshed funnel andCCfinished chamber covered with hinged type with CI cover ,CI frame of size 300 X 300 mm and embodying the pipe complete with alternate layers of salt and coke /charcoal/bentonite powder testing earth resistance as required etc., complete	1 No	As per DATA
433	ELEC-6.7.3	Providing earthing as per IS 3043 with GI earth plate of size 600 x600 x 6 mm by embodying 3 to 4 mtr below the ground level with 40 mm dia GI B class perforated pipe including all including all accessories like nuts bolts reducer,nipple, wire meshed funnel andCCfinished chamber covered with hinged type with CI cover ,CI frame of size 300 X 300 mm and embodying the pipe complete with alternate layers of salt and coke /charcoal/bentonite powder testing earth resistance as required etc., complete	1 No	As per DATA

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
434	ELEC-6.7.4	Providing earthing as per IS 3043 with copper earth plate of size 600 x 600 x 3.15 mm by embodying 3 to 4 mtr below the ground level with 40mm dia 'B' Class G.I Pipe by excavating a pit to a depth of 3 to 4 Mtr in all soils for Sophisticated Electronic equipment as per National Electric Code and earth connection from electrode Copper strip of 25mm x 5mm x 200mm length to be bolted with nut bolts to G.I.pipe including 25mm x 3mm copper strip of 6Mtrs length connected from plate to Copper strip including filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powderincluding all accessories like nuts bolts reducer,nipple, wire meshed funnel andCCfinished chamber covered with hinged type with CI cover ,CI frame of size 300 X 300 mm ,testing earth resistance as required etc., complete	1 No	As per DATA
435	ELEC-6.7.5	Providing earthing as per IS 3043 with 100 mm CI pipe of 3 mtrs long including all accessories like nuts bolts reducer,nipple, wire meshed funnel andCCfinished chamber covered with hinged type with CI cover ,CI frame of size 300 X 300 mm and embodying the pipe complete with alternate layers of salt and coke /charcoal/bentonite powder testing earth resistance as required etc., complete	1 No	As per DATA
		EARTH CONDUCTORS		
436	ELEC-6.7.6	Supply and laying of following sizes Earth wire/Strip in horizontal /Vertical run in Ground/surface/Recess including, revitting,soldering,saddles,making connection etc as required		
	a	6 SWG Copper wire(0.16 Kgs/1 Mtr)	1 Mtr	94
	b	8 SWG Copper wire(0.1155Kgs/1Mtr)	1 Mtr	68
	c	10 SWG Copper wire(0.028Kgs/1Mtr)	1 Mtr	17
	d	6 SWG GI wire(0.192 Kgs/Mtr)	1 Mtr	13
	e	8 SWG GI wire(0.104Kgs/1Mtr)	1 Mtr	7
	f	10 SWG GI wire(0.067Kgs/1Mtr)	1 Mtr	4
	g	20mm x 3mm Copper Flat(0.529Kgs/1Mtr)	1 Mtr	312
	h	25mm x 3mm Copper Flat (0.663Kgs/1Mtr)	1 Mtr	390
	i	32 mm x 6mm Copper Flat(1.9 Kgs/Mtr)	1 Mtr	1120
	j	50 mm x 6mm Copper Flat (2.680Kgs/1Mtr)	1 Mtr	1580
	k	25mm x 3mm GI Flat(0.656 Kgs/Mtr)	1 Mtr	42
	l	25mm x 6mm GI Flat (1.18Kgs/1Mtr)	1 Mtr	75
	m	32 mm x 6mm GI Flat(1.6 kgs/Mtr)	1 Mtr	105
	n	50 mm x 6mm GI Flat(2.5 Kgs ?mtr)	1 Mtr	160
		SECTION 7		
	7.0	LOCAL AREA NETWORK		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
437	ELEC-7.1.1	Supply,laying ,testing and commisioning of 4-pair, Cat6 Solid (Third party ETL Intertek tested 600 MHZ above) to support 1Gbps with Cross (+) filler pair seperator & PVC sheath 23 AWG, UTP Cable , Meets or exceeds ANSI/TIA-568-C.2 and UL Listed &RoHS Compliant in the existing raceways /pvc conduits including making connections to information outlets and patch panels with ferruling at both ends for identifiation with necessary tools for punching stripping crimping and testing required etc., complete Makes: Systimax /AMP/ Panduit/ Siemond/ Molex/Legrand	mtr	32
438	ELEC-7.1.2	Supply installation testing and commisioning of 2nos of Cat6 Tooless builtin crimping mechanism Information Outlet with Dust Cover Exceed ANSI/TIA-568-C.2 and ISO/IEC 11801 standards with 2module face plate for Category 6 component performance & Compatible to T568A,T568B wiring pattern and UL-940V0 Rated Plastic &RoHS Compliant Makes: Systimax /AMP/ Panduit/ Siemond/ Molex/Legrand	each	750
439	ELEC-7.1.3	Supply installation testing and commisioning of 1no of Cat6 Tooless builtin crimping mechanism Information Outlet with Dust Cover Exceed ANSI/TIA-568-C.2 and ISO/IEC 11801 standards with 1module face plate for Category 6 component performance & Compatible to T568A,T568B wiring pattern and UL-940V0 Rated Plastic &RoHS Compliant Makes: Systimax /AMP/ Panduit/ Siemond/ Molex/Legrand	each	390
440	ELEC-7.1.4	Supply installation testing and commisioning of 4 pair 23AWG Cat6 UTP ,flexible ,double ended patch cords along with 2 nos of RJ 45 connectors with strain relief boots Compatible to T568A,T568B specifications including making connections to information outlets Makes: Systimax /AMP/ Panduit/ Siemond/ Molex/Legrand		
	a	1mtr/3 ft	each	185
	b	2mtr/7 ft	each	220
	c	3 mtr/10 ft	each	250
441	ELEC-7.1.5	Supply installation testing and commisioning of Single Mode LC Pigtails LSZH 1mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	270
442	ELEC-7.1.6	Supply installation testing and commisioning of Single Mode SC Pigtails LSZH 1mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	370
443	ELEC-7.1.7	Supply installation testing and commisioning of Single Mode LC Pigtails LSZH 2mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	280
444	ELEC-7.1.8	Supply installation testing and commisioning of Single Mode SC Pigtails LSZH 2mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	390

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
445	ELEC-7.1.9	Supply installation testing and commissioning of Indoor multimode[62.5/125um] glass Fiber Optic Cable as per latest amendments of TIA /EIA 568B.3 , GR 409 CORE / UL listed NEC 770 Standards in existing Raceways/PVC Conduits/ slotted channels including making Terminations to active passive equipments with ferruling at both ends for identification with necessary tools for Terminations and testing required Makes: Systimax /Legrand/Molex/Panduit/Siemon/AMP		
	a	4 fiber		64
	b	6 fiber		69
	c	12 fiber		95
446	ELEC-7.1.10	Supply installation testing and commissioning Outdoor, steel tape armoured multimode[62.5/125um] glass Fiber Optic Cable as per latest amendments of TIA /EIA 568B.3 , GR 20 CORE/ UEC 794-1/ EN 187000 Standards in existing MSPVC Conduits/ hume pipe including making terminations to active passive equipments with ferruling at both ends for identification with necessary tools for Terminations and testing required Makes:Systimax /Legrand/Molex/Panduit/Siemon/AMP		
	a	4 fiber		65
	b	6 fiber		72
	c	12 fiber		98
446	ELEC-7.1.11	Supply ,Installation and Testing and commissioning of indoor 1 pair multimode [62.5/125um] glass Fiber Optic Patch Cords of One mtr length as per latest amendments of TIA /EIA 568B.3 and IEC 794 Standard Specifications including ST II / SC/FC/MT/PC connectors at both ends as per requirements Makes: Systimax /Legrand/Molex/Panduit/Siemon/AMP	mtr	919
447	ELEC-7.1.12	Supply ,Installation Testing and commissioning of 19 " Rack mounted/surface mounted aluminium / CRS powder coated multimode glass Fiber Optic Cable Patch panel/ LIU(upgradable to intelligent panels with use of sensor strips) along with cable tray/ fiber management system , adapters for ST II/ SC/FC/MT/PC connections including making connections to active / passive equipments with ferruling at both ends for identification with necessary tools for Terminations and testing requir Makes: Systimax /Legrand/Molex/Panduit/Siemon/AMP		
	a	8 Ports	1 No	5500
	b	12 Ports	1 No	7200
	c	24 Ports	1 No	13625
	d	36 Ports	1 No	15400

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
448	ELEC-7.1.13	Supply , Installation, Testing and Comissioning of Rack mounted 19", Cat 6 UTP,1.5-1.6 MM CRS chasis , powder coated Modular Patch Panels (upgradable to intelligent panels with use of sensor strips) with collapsible shutters on jacks to support latest ammendments of TIA / EIA Cat 6 Specifications in Existing Communication Rack along with necessary connections of Cat 6 UTP Cables, With Rear Cable management trays and clamps. Makes: Systimax /Legrand/Molex/Panduit/Siemon/AMP		
	a	6 Ports	1 No	2900
	b	12 Ports	1 No	3600
	c	18 Ports	1 No	4500
	d	24 Ports	1 No	5500
449	ELEC-7.1.14	Supply , Installation, Testing and Comissioning of Wall mounted Communication rack in two sections viz rear wall mount Section and hinged front section with glass doors, swing handles ,lock , Top and Bottom Cable entries,Supports for mounting rack on wall , Cable managers, Fan tray with 2 x 230 Volt fans, Equipment mounting hardware, wire managers , power supply box for supplying power to hubs, fans etc along with earth continuity kit, Mcb, indicator, moulded power supply cable, Blank panels , sliding shelves etc. Make: APW/HCL/Valrack/Netrack		
	a	6 U(44 mm) wall mounted	1 No	4680
	b	9 U(44 mm) wall mounted	1 No	5500
	c	12 U(44 mm) wall mounted	1 No	6460
	d	15 U(44 mm) wall mounted	1 No	7320
450	ELEC-7.1.15	Supply , Installation, Testing and Comissioning of Floor mounted Communication rack in two sections viz rear Steel Door and hinged front section with glass doors, swing handles ,lock on both doors, Top and Bottom Cable entries with gland plates ,Castor with brakes , 7 no Cable managers, 1 no Fan tray with 2 x 230 Volt fans, Equipment mounting hardware, wire managers , power supply box for supplying power to hubs, fans etc along with earth continuity kit, Mcb, indicator, moulded power supply cable, Blank panels of 1u / 2 u , sliding shelves .Frame of communication rack should be made of heavy grade Aluminum profile PS grey painted and panels should be made from CRCA steel 18 swg RS Beige painted . Make: APW/HCL/Valrack/Netrack		
	a	22 U (44 mm) Floor Standing Rack	1 No	20500
	b	27 U (44 mm)Floor Standing Rack	1 No	23000
	c	37 U (44 mm)Floor Standing Rack	1 No	32000
	d	42 U (44 mm)Floor Standing Rack 800WX1000D	1 No	41800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		MANAGEBLE NET WORK SWITCHES		
451	ELEC-7.1.16	Supply ,Installation ,Testing and Commissioning of Small Business 24 port Gigabit Managed Switch , Make :Cisco Model SG350-28 or equivalent in Juniper/Extreme	1 No	13000
452	ELEC-7.1.17	Supply ,Installation ,Testing and Commissioning of Small Business 48 port Gigabit Managed Switch , Make :Cisco Model SG300-52 or equivalent in Juniper/Extreme	1 No	24800
453	ELEC-7.1.18	Supply & Fixing of Cisco small business 8 port Gigabit POE Managed Switch , Make : Cisco Model:SG-350- 8PP or equivalent in Juniper/Extreme	1 No	13500
454	ELEC-7.1.19	Supply & Fixing of Cisco small business 24 port Gigabit POE Managed Switch , Make : Cisco Model:SG-350-28PP or equivalent in Juniper/Extreme	1 No	25000
455	ELEC-7.1.20	Supply ,Installation ,Testing and Commissioning of Small Business 24 port Gigabit Managed Switch Make :Cisco Model SG350-28SFP or equivalent in Juniper/Extreme	1 No	71500
456	ELEC-7.1.21	Supply , Installation, Testing and Comissioning of Layer2, Catalyst 2960 Plus 24 port, 10/100+2T/SFP LAN base Manageble Net work switch. Make: CISCO WS - C2960+24TC-L or equivalent in JUNIPER/ EXTREME	1 No	52000
457	ELEC-7.1.22	Supply , Installation, Testing and Comissioning of Layer2, Catalyst 2960 Plus 48 port, 10/100+2T/SFP LAN base Manageble Net work switch.Make: CISCO WS- C2960+48TC-L or equilent in JUNIPER/EXTREME	1 No	102000
458	ELEC-7.1.23	Supply , Installation, Testing and Comissioning of Layer2, Catalyst 2960 Plus 24 port, POE 10/100+2T/SFP LAN base Manageble Net work switch. Make: CISCO-C2960+24PC-L or equilent in JUNIPER/EXTREME	1 No	102000
459	ELEC-7.1.24	Supply , Installation, Testing and Comissioning of Layer2, Catalyst 2960 Plus 48 port, POE 10/100+2T/SFP LAN base Manageble Net work switch. Make: CISCO-C2960+48PST-L or equilent in JUNIPER/EXTREME	1 No	180000
460	ELEC-7.1.25	Supply , Installation, Testing and Comissioning of Layer2, Catalyst 2960 Plus 24 port, GigE LAN base Manageble Net work switch. Make: CISCO WS - C2960X-24TS-L or equivalent in JUNIPER/ EXTREME	1 No	152500
461	ELEC-7.1.26	Supply , Installation, Testing and Comissioning of Layer2, Catalyst 2960 Plus 48 port, GigE LAN base Manageble Net work switch. Make: CISCO WS - C2960X-48TS-L or equivalent in JUNIPER/ EXTREME	1 No	266000
462	ELEC-7.1.27	Supply & Fixing of WIFI Acss point with mounting accessories etc.,complete . Make : Cisco Aironet 1815i or equivalent in Ruckus/Aruba	1 No	22500
	7.2	RACEWAYS AND JUNCTION BOXES		
463	ELEC-7.2.1	Supply of .....G I Raceways of 2mm thick with top cover and required hard ware etc complete.		
	a	100mm x 38mm	1 Mtr	425

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	b	150mm x 38mm	1 Mtr	565
	c	300mm x 38mm	1 Mtr	960
	d	100mm x 25mm	1 Mtr	400
	e	150mm x 25mm	1 Mtr	525
	f	300mm x 25mm	1 Mtr	950
464	ELEC-7.2.2	Supply of .....G.I. Junction box of 2mm thick for direct acces to cables at the inter section of Raceways.		
	a	172mm x 52mm	1 No	320
	b	222mm x 52mm	1 No	420
	c	372mm x 52mm	1 No	750
	7.3	COMPUTERS, PRINTERS AND SCANNERS		
	ELEC-7.3.1	<p>Supply, Transportation and installation of Desktop with fully loaded software as desired, with the following configuration.</p> <p>Model : HP ProDesk or its equivalent in Dell/Lenova</p> <p>1. Processor: Intel® Core™ i7-7700 Processor with Intel® HD Graphics 630 (3.6 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)</p> <p>Intel H110 Chipset</p> <p>2. Memory: 8 GB DDR4-2400 SDRAM (1 x 8 GB)</p> <p>3. Hard drive 1 TB 7200 rpm SATA</p> <p>4. HP Monitor : 18.5"/19.5" with TCO 7.0 or its equivalent in HP/Dell/Lenova</p> <p>5. DVD:RW 9.5MM Optical Disk Drive, 1 audio line in; 1 audio line out; 1 HDMI; 1 RJ-45; 1 VGA; 4 USB 3.0; 4 USB 2.0</p> <p>6. Operating Systems: Preloaded Windows 10 professional 64 bit with product key License.</p> <p>7. Preloaded with latest version of Antivirus Symantec/ McAfee / NOD32 / eTrust / Avast Internet Security / Kaspersky / Quickheal / eScan / Msecure with following features: Antivirus, Antispyware, Instrusion Prevention Browser protection with single management console with 3 year subscription with support updates and patches.</p> <p>8. Accessories: With required connecting cables and driver media should be supplied.</p> <p>9. Warranty: 3 Year Standard On-Site Comprehensive Hardware Warranty (including O.S support, Spares-Parts/Service/Labour/On-site)</p>	1 No	65700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
465	ELEC-7.3.2	<p>Supply, Transportation and installation of Desktop with fully loaded software as desired, with the following configuration.</p> <p>Model : HP ProDesk or its equivalent in Dell/Lenova</p> <p>1. Processor: Intel® Core™ i5-7500 Processor with Intel® HD Graphics 630 (3.4 GHz base frequency with Intel® Turbo Boost Technology, 6 MB cache) Intel H110 Chipset</p> <p>2. Memory: 8 GB DDR4-2400 SDRAM (1 x 8 GB)</p> <p>3. Hard drive 1 TB 7200 rpm SATA</p> <p>4. HP Monitor : 18.5"/19.5" with TCO 7.0 or its equivalent in Dell/Lenova</p> <p>5. DVD:RW 9.5MM Optical Disk Drive, 1 audio line in; 1 audio line out; 1 HDMI; 1 RJ-45; 1 VGA; 4 USB 3.0; 4 USB 2.0</p> <p>6. Operating Systems: Preloaded Windows 10 professional 64 bit with product key License. However, the product key should be mentioned in the installation report at the time of installation.</p> <p>7. Preloaded with latest version of Antivirus Symantec/ McAfee / NOD32 / eTrust / Avast Internet Security / Kaspersky / Quickheal / eScan / Msecure with following features: Antivirus, Antispyware, Intrusion Prevention Browser protection with single management console with 3 year subscription with support updates and patches.</p> <p>8. Accessories: With required connecting cables and driver media should be supplied.</p> <p>9. Warranty: 3 Year Standard On-Site Comprehensive Hardware Warranty (including O.S support, Spares-Parts/Service/Labour/On-site)</p>	1 No	59350
466	ELEC-7.3.3	<p>Supply, Transportation and installation of Printer Make : HP LaserJet 1020 Plus Printer (OR) It's Equivalent in Canon /Epson</p> <p>Features:</p> <p>Print technology Laser</p> <p>Duty cycle (monthly, letter) Up to 5000 pages</p> <p>Recommended monthly page volume 250 to 2000</p> <p>Duty cycle (monthly, A4) Up to 5000 pages print</p> <p>Print speed black (normal, letter) Up to 15 ppm</p> <p>Print speed black (normal, A4) Up to 14 ppm</p> <p>Duplex printing Manual (driver support provided)</p> <p>PROCESSOR Processor speed 234 MHz</p> <p>PAPER HANDLING Envelope feeder No</p> <p>Paper trays, maximum 1 (plus single-sheet priority input slot)</p>	1 No	10880
467	ELEC-7.3.4	<p>Supply, Transportation and installation of All-in-One (Print, Copy, Scan) with duplex, auto document feeder makes: Canon imageCLASS MF244dw /HP or its equivalent</p> <p>features:</p> <ul style="list-style-type: none"> -Print Resolution 600 x 600dpi -Print Speed (A4) 27ppm -Auto Duplex Printing Standard -Available Paper Size for Auto Duplex Print A4, Letter, Legal (*1), Indian Legal, Fullscape -COPY Copy Speed (A4) 27ppm <p>Maximum Number of Copies Up to 999 copies</p> <p>Scan Type Colour Contact Image Sensor</p> <p>Scan Resolution Optical Up to 600 x 600dpi</p> <p>Pull Scan Yes, USB and Network</p>	1 No	20500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
468	ELEC-7.3.5	Supply, Transportation and installation of Document Scanner Make : Brother ADS-2400N document scanner (OR) It's Equivalent in Canon Features: upto 30ppm/60ipm at 300dpi paper size A8 to A4/Legal 256MB memory upto 1200X1200 dpi resolution 50pages ADF input capacity upto 3000 pgs daily duty cycle USB 2.0 Host & Gigabit Lan Port	1 No	34990
469	ELEC-7.3.6	Supply of 5 Pair telephone copper wire. Makes: Finolex / Delton / Surabi / Polycab	100 Mtrs	2500
470	ELEC-7.3.7	Supply of 100 pair MDF loaded with 2/10 Modular. Makes: Krone or its equivalent.	1 No	3330
471	ELEC-7.3.8	Supply of 100 Pair raiser cable for telephone Makes: Finolex / Delton / Surabi / Polycab.	1 Mtr	350
472	ELEC-7.3.9	Supply of 10 Pair telephone Copper wire. Makes: Finolex / Delton / Surabi / Polycab	1 Mtr	35
473	ELEC-7.3.10	Supply of 20 Pair telephone Copper wire. Makes: Finolex / Delton / Surabi / Polycab	1 Mtr	70
474	ELEC-7.3.11	Supply of 50 Pair telephone Copper wire. Makes: Finolex / Delton / Surabi / Polycab.	1 Mtr	175
475	ELEC-7.3.12	Supply of 10 pair Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.	1 No	590
476	ELEC-7.3.13	Supply of 20 pair Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.	1 No	900
477	ELEC-7.3.14	Supply of 50 pair Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.	1 No	1875
478	ELEC-7.3.15	Supply of 200 pair Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.	1 No	7160
		SECTION 8		
	8.1	MISSILLANEOUS ITEMS		
479	ELEC-8.1.1	TW Seperators / Gutties	100 Nos	180
480	ELEC-8.1.2	PVC Rawl Plugs	100 Nos	30
481	ELEC-8.1.3	PVC Grips	100 Nos	30
482	ELEC-8.1.4	U Nails	100 Nos	30
483	ELEC-8.1.5	Alluminium Link Clips	100 Nos	30
484	ELEC-8.1.6	50 mm G.I.Nut and Bolts.	1 Set	15
485	ELEC-8.1.7	63 to 100 mm G.I.Nut and Bolts.	1 Set	25
486	ELEC-8.1.8	50 mm 0 Gauge Nails	1 Doz	45
487	ELEC-8.1.9	63 to 100 mm 0 Gauge Nails	1 Doz	72

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
488	ELEC-8.1.10	Hard Coke	1 Kg	20
489	ELEC-8.1.11	Salt	1 Kg	15
490	ELEC-8.1.12	PVC Cleats 2 Way	100 Nos	325
491	ELEC-8.1.13	PVC Cleats 4 Way	100 Nos	430
492	ELEC-8.1.14	Binding Wire	1 Kg	60
493	ELEC-8.1.15	PVC /cotton tape Role (8 Mtrs)	1 No	18
494	ELEC-8.1.16	C.I.Knob	1 No	25
495	ELEC-8.1.17	Stay tight set (Jum bracket 300 mm)	1 Pair	295
496	ELEC-8.1.18	Stay clamp with bolts and Nuts)	1 Set	196
497	ELEC-8.1.19	L.T.Guy insulator	1 No	75
498	ELEC-8.1.20	12 / 15 MS plain rod fan hook	1 No	30
499	ELEC-8.1.21	19 / 20 mm Steel tube fan down rod	1 Mtr	85
500	ELEC-8.1.22	Consealed box PVC / MS with hook for fan	1 No	100
501	ELEC-8.1.23	Supply and fixing of Anchor fastner with fan hook / Providing MS Fan hook with grouting and cement plastering.	1 No	80
502	ELEC-8.1.24	Coil Earthing	1 No	75
503	ELEC-8.1.25	Cable root Indicators of size 152mm round / 102mm x 102mm / 152mm x 152mm	1 No	85
504	ELEC-8.1.26	40 mm x 40 mm x 6 mm angle iron with I bolt.	1 Set	245
505	ELEC-8.1.27	Mild Steel Items	1 Kg	60
506	ELEC-8.1.28	Acrylic Cover of size 4" x 7" for night lamps.	1 No	20
507	ELEC-8.1.29	TW / PVC Round Blocks	1 No	8
508	ELEC-8.1.30	G.I.Funnel with Mesh 1/2" x 4"	1 No	80
509	ELEC-8.1.31	Asbestos Sheet	1 Sq Mt	25
510	ELEC-8.1.32	First Aid box 18" x 12" x 8"	1 No	1075
511	ELEC-8.1.33	11 KV/ 22 KV Hand gloves	1 No	200
512	ELEC-8.1.34	100mm CI pipe	1 mtr	As per civil SOR
	8.2	LEGEND PLATES		
513	ELEC-8.2.1	Danger Notice Plates of size -----, shall comply with IS:2551-1982		
	a	250x200mm,	1 No	225
	b	200x150mm,	1 No	200
	c	150x100mm,	1 No	100
514	ELEC-8.2.2	Bus bar chamber 100mm x 40mm	1 No	50
515	ELEC-8.2.3	Cable Alley 100mm x 40mm	1 No	50
516	ELEC-8.2.4	Earth 40mm x 20mm	1 No	50

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
517	ELEC-8.2.5	Auto / Manual	1 No	50
518	ELEC-8.2.6	Semi oval type aluminium anodized legend plates ON / OFF / Forward / Reverse / Start / Stop / UP / DOWN / R Phase / Y Phase / B Phase / Trip / Open / Close / Left / Right / Motor on / Motor off / Accept / Retract / Reset / Emergency / Running / Pump off / Emergency Stop / Emergency on / Slow.	1 No	25
519	ELEC-8.2.7	Shock instruction chart in English / Hindi / Telugu duly framed with front glass	1 No	450
	8.3	COPPER / ALLUMINIUM / G.I. ITEMS (PER KG)		
520	ELEC-8.3.1	Copper Plate / Strip / SWG wire No.8 / 10 / 14	1 kg	590
521	ELEC-8.3.2	Copper winding wire	1 kg	680
522	ELEC-8.3.3	Copper winding wire with PVC Insulated of fine quality	1 kg	700
523	ELEC-8.3.4	Aluminium Bus bars / Strips / Accessories	1 kg	230
524	ELEC-8.3.5	Aluminium winding wire	1 kg	300
525	ELEC-8.3.6	G.I. Strip / Plate / Wire	1 kg	65
	8.4	SMC TYPE SUPPORTS FOR THE BUSBARS		
526	ELEC-8.4.1	Supply of type supports for the bus bars-----		
	a	50 x 70 x 14 mm	1 No	30
	b	60 x 70 x 14 mm	1 No	35
	c	70 x 70 x 14 mm	1 No	65
	d	300 x 50 x 10 mm	1 No	20
	e	350 x 52 x 10 mm	1 No	160
	f	420 x 60 x 12 mm	1 No	230
527	ELEC-8.4.2	DMC Earth Flat Supports 20 x3 mm / 20x 6mm / 25 x 6mm / 25 x 3mm / 32 x 3 mm / 32 x 6mm / 40 x 3 mm / 40 x 6mm	1 No	50
528	ELEC-8.4.3	Heat shrinkable sleeves for the Bus bars up to 70 Sqmm	1 Mtr	15
529	ELEC-8.4.4	Heat shrinkable sleeves for the Bus bars above 70 Sqmm	1 Mtr	25
530	ELEC-8.4.5	6.2 Volt series bulb (25 Nos.)	25 Nos	60
531	ELEC-8.4.6	6.2 Volt series bulb with navar plate(25 Nos.)	25 Nos	65
532	ELEC-8.4.7	Supply of Rotating machine	1 No	12000
533	ELEC-8.4.8	Supply and fixing of 6mm thick MS Chekered plate.	1 Kg	70
534	ELEC-8.4.9	Supply and fixing of 6mm thick Aluminium Chekered plate		250
535	ELEC-8.4.10	Copper old winding Wire scrap for 1 Kg		150
536	ELEC-8.4.11	Cement		8
537	ELEC-8.4.12	Cost of Sand		600
538	ELEC-8.4.13	Cost of Bricks		4000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
539	ELEC-8.4.14	Hylam Sheet	1 Sq inch	1
540	ELEC-8.4.15	Supply of Nominal-Bore ----- G.I.Pipe		
	a	25mm Heavy grade	1 mtr	280
	b	25mm Medium grade	1 mtr	245
	c	40mm Heavy grade	1 mtr	420
	d	40mm Medium grade	1 mtr	350
541	ELEC-8.4.16	80mm Nominal Bore C.I.Earth Pipe of 3 Mtrs Length	1 no	3400
542	ELEC-8.4.17	Earth work excacvation including all soils for trench, Pole Pit and Earth Pit	1 cum	250
543	ELEC-8.4.18	Drilling of 16 Nos through holes of 12mm dia to G.I pipe	1 No	6
544	ELEC-8.4.19	G.I Nuts, Bolts and Washers each set	1 set	12
545	ELEC-8.4.20	18" dia 2" thick hume pipe ring	1 No	250
546	ELEC-8.4.21	18" dia 3" hume pipe ring	1 No	300
547	ELEC-8.4.22	2" thick CC cover for hume pipe ring with handle.	1 No	130
548	ELEC-8.4.23	Supply of Saddle / Clamps suitable for fixing -----		
	a	4 to 10 Sqmm 2 Core Cable	100 Nos	230
	b	4 & 6 Sqmm 4 Core Cable	100 Nos	230
	c	10 & 16 Sqmm 4 Core Cable	100 Nos	300
	d	25 & 35 Sqmm 3.5 Core Cable.	100 Nos	350
	e	50 Sqmm 3.5 Core Cable.	100 Nos	500
	f	70 & 95 Sqmm 3.5 Core Cable	100 Nos	550
	g	120 to 185 Sqmm 3.5 Core Cable	100 Nos	700
	h	240 & 300 Sqmm 3.5 Core Cable	100 Nos	850
	i	400 Sqmm 3.5 Core Cable	100 Nos	1100
549	ELEC-8.4.24	Supply and fixing of PVC synthetic elastomer electrically insulated mat conforming to IS: 15652-2006 with----- --		
	a	Class A insulation having 2mm thickness upto 3.3KV	1 sqmt	3800
	b	Class B insulation having 2.5mm thickness upto 11KV	1 sqmt	3900
	c	Class C insulation having 3mm thickness upto 33KV	1 sqmt	4000
550	ELEC-8.4.24	Supply of round bottom G.I sheet bucket of 9 Ltrs. Capacity as per IS:2546 made out of 24 gauge GI sheet with extra handle at bottom duly painted inside and red out side with printed with FIRE Mark for stand and hook and filled with sand and arranged to existing stand or hook. (MR)	1 no	270
551	ELEC-8.4.25	Providing floor mounting stand for keeping 4No of fire bucket 1500mm length, 900mm height made out of 40x40x6mm angle iron welded with 4 hooks and duly painted with one coat of red lead and two coats of enamel paint.	1 no	1100

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
552	ELEC-8.4.26	Supply of GI Louver shutter for exhaust fan		
	a	9 to 12"	1 no	150
	b	15 to 18"	1 no	180
553	ELEC-8.4.27	EICHER model 11:10 with 100 H. P direct injection 4 stroke engine with one spare wheel 3800 mm cabin high deck with jangla (full body) (4 wheeler) for generator	1 No	620000
		LABOUR RATES		
554	ELEC-8.1.75	Skilled Electrician	1 No	
555	ELEC-8.1.76	Semi Skilled Electrician / Lineman	1 No	
556	ELEC-8.1.77	Helper (Electrical)	1 No	
557	ELEC-8.1.78	Skilled Mason	1 No	
558	ELEC-8.1.79	Semi Skilled Mason	1 No	
559	ELEC-8.1.80	Skilled Welder	1 No	
560	ELEC-8.1.81	Skilled Fitter	1 No	
561	ELEC-8.1.82	Semi Skilled Fitter / Welder	1 No	
562	ELEC-8.1.83	Skilled Carpenter	1 No	
563	ELEC-8.1.84	Semi Skilled Carpenter	1 No	
564	ELEC-8.1.85	Man Mazdoor	1 No	
565	ELEC-8.1.86	DG Set operator/Air Compressor Operator	1 No	
566	ELEC-8.1.87	2nd Class DG Set operator/Air Compressor Operator	1 No	
567	ELEC-8.1.88	Plumber (Licensed)/Pipe Fitter	1 No	
568	ELEC-8.1.89	Painter Class -2	1 No	
569	ELEC-8.1.90	Diploma Engineer / Surveyor	1 No	
570	ELEC-8.1.91	Graduate Engineer	1 No	
571	ELEC-8.1.92	ITI Certificate holder	1 No	
572	ELEC-8.1.93	Stenographer / Computer Operator	1 No	
		NB : The labour rates may be adopted based on the common Civil SoR for the year 2018-19		

SECTION 9

	9.1	WIRELESS FIRE ALARAM SYSTEM		
573	ELEC-9.1.1	Supply and fixing of wireless smoke detection control panel of 28 wireless zones, 2 Hard wired Zones, Tamper Alert, Pass code protected, RF jamming recognition, diagnostic feature for RF signal strength between panel and each detector, vent reporting using PSTN telephone line, dialing upto 4 telephone numbers, event reporting as per users choice, LCD screen display, two way voice interaction, battery backup stand by time up to 12 hrs. Including transportation, all taxes and all labour charges etc complete. Makes: Cease Fire / Visonic / Honeywell	1 No	35000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
574	ELEC-9.1.2	Supply and fixing of Wireless Repeater. The wireless repeater extends the communication range of detection by relaying data between receiver and remote wireless transmitter including transportation, all taxes and all labour charges etc complete. Makes: Cease Fire / Visonic / Honeywell.	1 No	8500
575	ELEC-9.1.3	Supply and fixing of Wireless Siren Strobe external wireless siren - a fully supervised power code outdoor (IP55) wireless Siren and strobe light. Designed for external installation. Wire - Free connection between control panel and siren. Convenient rapid no- mess installation. Separate fire alarm signals, 98db Piezo siren and high power strobe light. Weather resistant, IP55, 2-way communication for local and remote diagnostics. Plug-in power supply, NIMH rechargeable back-up power battery, transmits status, tamper, low- battery, supervisory and AC loss messages to the control panel, Tri- State tamper switch identifies screw manipulation removal of cover or playing from the wall including transportation, all taxes and all labour charges etc complete. Makes: Cease Fire / Visonic / Honeywell.	1 No	11500
576	ELEC-9.1.4	Supply and fixing of wireless Fully Supervised Smoke Detector, Photoelectric detection technology for superior detection sensitivity , sound and transmitted for smoke, tamper and low battery, works on power code protocol, easy programming and enrolling to the control panel, long life 9 volt alkaline or lithium battery including transportation, all taxes and all labour charges etc complete. Makes: Cease Fire / Visonic / Honeywell.	1 No	5750
	9.2	ADDRESSABLE - FIRE ALARM SYSTEM		
577	ELEC-9.2.1	Supply, Installation, testing and commissioning of wall mounting Micro Processor based analog addressable fire alarm Control panel expandable by minimum 2 additional loops with minimum 80 character LCD display 4 access levels 1000 events, historical logging, flash E-PROM, 240 volts A C Power supply, automatic battery charger, 24V SLA batteries suitable for operating the entire system including tack back units and the hooters/strobes for a minimum of 4 hours in battery condition the panel shall have suitable power amplifiers for hooter / strobes the panel shall be capable beeing integrated with the BMS system and shall include cost of supply, installation of any additional modules or interfaces required for the same. The panel shall be completed as per the specification and as required fixing of 10 loop Micro processor based Fire Alarm control panel with zonal indications and battery back up as per detailed specifications. Makes: Notifier / Edwards.		
	a	1 loop	1 No	175000
	b	2 loop	1 No	200000
	c	4 loop	1 No	245000
	d	6 loop	1 No	365000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	e	8 loop	1 No	400000
	f	10 loop	1 No	550000
577	ELEC-9.2.2	Supply, Installation, testing and commissioning of wall mounting Micro Processor based analog addressable fire alarm Control panel expandable by minimum 2 additional loops with minimum 80 character LCD display 4 access levels 1000 events, historical logging, flash E-PROM, 240 volts A C Power supply, automatic battery charger, 24V SLA batteries suitable for operating the entire system including tack back units and the hooters/strobes for a minimum of 4 hours in battery condition the panel shall have suitable power amplifiers for hooter / strobes the panel shall be capable being integrated with the BMS system and shall include cost of supply, installation of any additional modules or interfaces required for the same. The panel shall be completed as per the specification and as required fixing of 10 loop Micro processor based Fire Alarm control panel with zonal indications and battery back up as per detailed specifications. Makes: Siemens / Morley / Bosch / Ravel.		
	a	1 loop	1 No	165000
	b	2 loop	1 No	185000
	c	4 loop	1 No	215000
	d	6 loop	1 No	310000
	e	8 loop	1 No	360000
	f	10 loop	1 No	515000
578	ELEC-9.2.3	Supply, Installation, testing and commissioning of intellegent analogue addressable Repeater panel including the cost of mounting accessories complete as per specification as required. Makes: Notifier / Edwards.	1 No	105000
579	ELEC-9.2.4	Supply, Installation, testing and commissioning of intellegent analogue addressable Repeater panel including the cost of mounting accessories complete as per specification as required. Makes: Siemens / Morley / Bosch / Ravel.	1 No	90000
580	ELEC-9.2.5	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning. Makes: Notifier / Edwards.	1 No	4600
581	ELEC-9.2.6	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
582	ELEC-9.2.7	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alarm including the cost of mounting accessories etc. complete. Makes: Notifier / Edwards.	1 No	4500
583	ELEC-9.2.8	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alarm including the cost of mounting accessories etc. complete. Makes: Siemens / Morley / Bosch / Ravel.	1 No	4200
584	ELEC-9.2.9	Supply and instllation of intallegent analogue addressable photo electric smoke detector including cost of base plate etc., complete as per specification with required fittings and accessories. Makes: Notifier / Edwards.	1 No	3800
585	ELEC-9.2.10	Supply and instllation of intallegent analogue addressable photo electric smoke detector including cost of base plate etc., complete as per specification with required fittings and accessories. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3500
586	ELEC-9.2.11	Supply and installation of intelligent analogue addressable rate of rise cum fixed temparature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Notifier / Edwards.	1 No	4100
587	ELEC-9.2.12	Supply and installation of intelligent analogue addressable rate of rise cum fixed temparature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3800
588	ELEC-9.2.13	Supply and installation of intelligent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Notifier / Edwards.	1 No	4200
589	ELEC-9.2.14	Supply and installation of intalligent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
590	ELEC-9.2.15	Supply and Installation of Intelligent analogue addressable Control Modules including the cost of mounting accessories complete as per specifications and as required. Makes: Notifier / Edwards.	1 No	4200
591	ELEC-9.2.16	Supply and Installation of Intelligent analogue addressable Control Modules including the cost of mounting accessories complete as per specifications and as required. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3900
592	ELEC-9.2.17	Supply and Installation of Intelligent analogue addressable monitor modules including the cost of mounting accessories complete as per specifications and as required. Makes: Notifier / Edwards.	1 No	4200
593	ELEC-9.2.18	Supply and Installation of Intelligent analogue addressable monitor modules including the cost of mounting accessories complete as per specifications and as required. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3900
594	ELEC-9.2.19	Supply and Installation of Intelligent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete as required. Makes: Notifier / Edwards.	1 No	3800
595	ELEC-9.2.20	Supply and Installation of Intelligent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete as required. Makes: Siemens / Morley / Bosch / Ravel.	1 No	3200
	9.3	CONVENTIONAL - FIRE ALARM SYSTEM		
596	ELEC-9.3.1	Supply, Installation, testing and commissioning of conventional Micro processor based Fire Alarm panel with, 12V SMF batteries etc., complete with all standard accessories. Makes: System Censor / Ravel		
	a	2 Zone	1 No	13500
	b	4 Zone	1 No	14500
	c	6 Zone	1 No	15000
	d	8 Zone	1 No	15500
	e	10 Zone	1 No	19500
	f	12 Zone	1 No	22500
	g	14 Zone	1 No	25500
597	ELEC-9.3.2	Supply and installation of Repeater panel including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel	1 No	12000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
598	ELEC-9.3.3	Supply and installation of dual tone electronic hooter of 85dB including the cost of mounting accessories complete as per specifications and as required.	1 No	750
599	ELEC-9.3.4	Supply and installation of dust and vermin proof manual call point to initiate audio visual alarm including the cost of mounting accessories complete as per specifications and as required.	1 No	600
600	ELEC-9.3.5	Supply and installation of response indicators for above false ceiling detectors.	1 No	150
601	ELEC-9.3.6	Supply and installation of plug - in type multi criterion detectors including the cost of base plate. 75mm dia M.S. outlet box for fixing of the detector base. Mounting accessories etc., complete as per specifications as required. Makes: System Sensor / Ravel	1 No	1600
602	ELEC-9.3.7	Supply and installation of plug -in type photo electric smoke detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base. Mounting accessories etc complete and as per specifications and as required. Makes: System Sensor / Ravel	1 No	1400
603	ELEC-9.3.8	Supply and installation of plug -in type rate of rise cum fixed temperature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: System Sensor / Ravel	1 No	1300
	9.4	POWDER BASED FIRE EXTINGUISHERS		
604		Supply and fixing of ABC stored pressure squeeze grip type fire extinguishers, 9 kg capacity, IS:15683 : 2006, filled with ABC Mono Ammonium Phosphate base powder-90 complete with discharge hose and wall mounting bracket, 2mm Mild Steel, EPDM Rubbers, Pressure Gauge, which work effectively on all class of fires (A, B, C & Electrical fires) with 5 years warranty Including transportation, all taxes and all labour charges etc complete.		
	ELEC-9.4.1	Makes : Cease Fire / Minimax	1 No	8100
	ELEC-9.4.2	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	5200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
605		Supply and fixing of ISI mark (IS:15683) Mono ammonium phosphate powder 90 (MAP) 2 Kg Fire extinguisher, stored pressure type, pressure gauge, gross wt. 3.6 kg, empty wt.1.6 kg, Discharge time minimum 8 sec, controllable discharge mechanism, range min. 2 mts applicable on classes A,B, C & electrically started fire, A rating -2 A, B rating -21 B, can construction: Deep drawn and Co2 mig welding, Valve construction: Forging & Machining, internal coating of can: Epoxy powder coating, External coating of Can:Epoxy polyster powder coating, sheet metal thickness:1.60mm, Helium leak detection tested with 5 years warranty Including transportation, all taxes and all labour charges etc complete.		
	ELEC-9.4.3	Makes : Cease Fire / Minimax	1 No	4000
	ELEC-9.4.4	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	3400
606		Supply and fixing of ISI mark (IS:15683) Mono ammonium phosphate powder 90 (MAP) 4 Kg Fire extinguisher, stored pressure type, pressure gauge, gross wt. 6.9 kg, empty wt.2.9 kg, Discharge time minimum 13 sec, controllable discharge mechanism, range min. 4 mts applicable on classes A,B, C & electrically started fire, A rating -3 A, B rating -34 B, can construction: Deep drawn and Co2 mig welding, Valve construction: Forging & Machining, internal coating of can: Epoxy powder coating, External coating of Can:Epoxy polyster powder coating, sheet metal thickness:1.60mm, Helium leak detection tested with 5 years warranty Including transportation, all taxes and all labour charges etc complete.		
	ELEC-9.4.5	Makes : Cease Fire / Minimax	1 No	5700
	ELEC-9.4.6	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	3800
607		Supply and fixing of ISI mark (IS:15683) Mono ammonium phosphate powder 90 (MAP) 6 Kg Fire extinguisher, stored pressure type, pressure gauge, gross wt. 9.4 kg, empty wt.3.4 kg, Discharge time minimum 13 sec, controllable discharge mechanism, range min. 4 mts applicable on classes A,B, C & electrically started fire, A rating -4 A, B rating -34 B, can construction: Deep drawn and Co2 mig welding, Valve construction: Forging & Machining, internal coating of can: Epoxy powder coating, External coating of Can:Epoxy polyster powder coating, sheet metal thickness:1.60mm, Helium leak detection tested with 5 years warranty Including transportation, all taxes and all labour charges etc complete.		
	ELEC-9.4.7	Makes : Cease Fire / Minimax	1 No	6500
	ELEC-9.4.8	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	5200
		CLEAN AGENT FIRE EXTINGUISHERS		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
608		Supply and fixing of ISI mark (IS:15683) Clean Agent HCFC 123, 2 KG Fire extinguisher , Stored pressure type, pressure guage, gross weight 3.7Kg , empty weight 1.7 Kg, discharge time minimum 8 secs, controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating- 1A, B rating- 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyester powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, 5 Years warranty		
	ELEC-9.4.9	Makes : Cease Fire / Minimax	1 No	11600
	ELEC-9.4.10	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	9600
609		Supply and fixing of ISI mark (IS:15683) Clean Agent HCFC 123, 4 Kg Fire extinguisher , Stored pressure type, pressure guage, gross weight 6.9Kg , empty weight 2.9 Kg, discharge time minimum 8 secs, controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating- 1A, B rating- 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyester powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, 5 Years warranty.		
	ELEC-9.4.11	Makes : Cease Fire / Minimax	1 No	19500
	ELEC-9.4.12	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	17500
610		Supply and fixing of Co2 type Fire Extinguishers 4.5 Kg capacity confirming to IS 2878 made from ISI marked steam less cylinder confirming to IS:7285 & CE certified and fitted with ISI marked controlled valve confirming to IS:3224, high pressure 1 Mtr discharge hose & horn complete with initial gas charged with carrying handle with wheels and wall mounting bracket. Squeeze lever discharge, used un-used indicator, Aphoxy coated paint (Red) with 93% gloss with 2 years warranty Including transportation, all taxes and all labour charges etc complete.		
	ELEC-9.4.13	Makes : Cease Fire / Minimax	1 No	8900
	ELEC-9.4.14	Makes : Safex / Kenex / Bharat / Reliance/NewTech	1 No	6700
611	ELEC-9.4.15	Supply and fixing of Escape signage boards in Rigid Photo luminecent based glow in Dark rigid sheet with high intensity luminous properties with specificaiton. Makes: Cease Fire or its equivalent make Model-1ES01	1 No	1200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
612	ELEC-9.4.16	Supply and fixing of Cease fire or its equivalent Escape gear Mild Steel box size 425mmx360mmx140mm Epoxy powder coated to protect it from Weathering , smoke hood tested to Eupropean Standard EN 403 1993-S known to reduce Carbon Monoxide, propend(acrloein), hydrogen chloride, hydrogen Cyanide and Solid and liquid toxic particles to manageable level for atleast 15 minutes shall with stand tempeartures upto 80 degrees single use only Fire Blanket size 1.2m x1.8m used to cover any vessel containing used to Extinguish a clothing fire wrap blanket around the victim.	1 No	13500
613	ELEC-9.4.17	Supply and fixing of 4Nos of 9 Ltrs capacity round bottom sand buckets along with bucket sand, Fire buckets with round bottom type enamel painted, white inside & red out side and letter FIRE inblack out side & Handle with mounting bracket.	1 Set	1200
614	ELEC-9.4.18	Supply and fixing of Fire bucket stand fabricated by M.S. angles to install for Four numbers of buckets as per local fire officers standards.	1 Set	1500
	9.5	FIRE HYDRANT AND SPRINKLER SYSTEM		
		ELECTRIC DRIVEN MAIN FIRE PUMPS(SPLIT CASE)		
615	ELEC-9.5.1	Supplying, installation, testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following complete in all respect as required	1 Set	320000
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 1620 lpm at 56 Mtr. head conforming to IS 1520		
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
616	ELEC-9.5.2	Supplying , installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	360000
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 2280 lpm at 70 Mtr. head conforming to IS 1520		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
617	ELEC-9.5.3	Supplying Installation, testing and Commissioning of electric driven main fire pump suitable for automatic operation and consisting of following Complete in all respect as required.		560000
		a)Horizontal type, multistage, centrifugal, split casing pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm. at highest and farthest outlet at specified flow of 2280 LPM and 120 Metres head conforming to IS 1520.		
		b)Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c)M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.		
		d)Suitable CC foundation of 1:2:4 ratio (1 Cement: 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) duly plastered and with anti vibration pads Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
618	ELEC-9.5.4	Supplying , installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.	1 Set	415000
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 2850 lpm at 70 Mtr. head conforming to IS 1520		
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
		Supplying Installation, testing and Commissioning of electric driven main fire pump suitable for automatic operation and consisting of following Complete in all respect as required.		580000
		a)Horizontal type, multistage, centrifugal, split casing pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm. at highest and farthest outlet at specified flow of 2850 LPM and 120 Metres head conforming to IS 1520.		
		b)Suitable HP SQ cage induction motor, TEFC, synchronous speed 1470 RPM, suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c)M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.		
		d)Suitable CC foundation of 1:2:4 ratio (1 Cement: 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) duly plastered and with anti vibration pads		
		DIESEL ENGINE DRIVEN FIRE PUMPS		
619	ELEC-9.5.4	Supplying , installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	416000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 1620 lpm at 56 Mtr head conforming to IS 1520		
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
620	ELEC-9.5.5	Supplying , installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	600000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 2280 lpm at 70 Mtr head conforming to IS 1520		
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		
621	ELEC-9.5.5	Supplying , installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required		725000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 2280 lpm at 120 Mtr head conforming to IS 1520		
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
622	ELEC-9.5.6	Supplying , installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	680000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 2850 lpm at 70 Mtr head conforming to IS 1520		
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		
623	ELEC-9.5.7	Supplying , installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required		
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of 2850 lpm at 120 Mtr head conforming to IS 1520		775000
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		
		ELECTRIC DRIVEN MAIN FIRE PUMPS(END SUCTION)		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
624	ELEC-9.5.8	Supplying , installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	240000
		a) End suction back pull out centrifugal pump, Std fitted with BRONZE IMPELLER & gland packing ,capacity 171 Cum/hr (2850 LPM) at total head 70 M at operating speed 2900 rpm. Pump duty as per TAC		
		b) 55 KW / 75 HP, 3000 srpm, TEFC (IP55) horizontal foot mounted, squirrel cage induction motor, suitable for 415 volts +/- 10%, 3 Ph, 50 Hz +/-5%, a.c.supply. Class 'F' insulated and suitable for ambient temperature up to 50 deg C. Motor in frame SC 250 M frame for driving above pump.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
625	ELEC 9.5.9	Supplying , installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required		196000
		a) End suction back pull out centrifugal pump, Std fitted with BRONZE IMPELLER & gland packing ,capacity 137 Cum/hr (2280 LPM) at total head 70 mwc at operating speed 2900 rpm. Pump duty as per TAC		
		b) 45 KW / 60 HP, 3000 srpm, TEFC (IP55) Horizontal foot mounted, squirrel cage induction motor, suitable for 415 volts +/- 10%, 3 Ph, 50 Hz +/-5%, a.c.supply. Class 'F' insulated and suitable for ambient temperature up to 50 deg C. Motor in frame SC 225 M frame		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
		Supplying, installation, Testing and commissioning of Electric engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required		
626	ELEC 9.5.9	a) End suction back pull out centrifugal pump, Std fitted with BRONZE IMPELLER & gland packing ,capacity 97 Cum/hr (1620 LPM) at total head 56 mwc at operating speed 2900 rpm. Pump duty as per TAC		144000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		b) 30 KW / 40 HP, 3000 srpm, TEFC (IP55) horizontal foot mounted, squirrel cage induction motor, suitable for 415 volts +/- 10%, 3 Ph, 50 Hz +/-5%, a.c.supply. Class 'F' insulated and suitable for ambient temperature up to 50 deg C. Motor in frame SC 250 M frame for driving above pump.		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
		DIESEL ENGINE DRIVEN MAIN FIRE PUMPS(END SUCTION)		
627	ELEC-9.5.10	Supplying , installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	499000
		a) End suction back pull out pump, Std fitted with BRONZE Impeller & gland packing, capable of delivering 171 Cum/hr(2850 LPM) at a total head of 70 M when operated at 1800 rpm and pump duty as per TAC		
		b) Liquid cooled, 85 BHP at 1800 rpm, diesel engine (Radiator cooled) 12 Volts starting system with standard accessories		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		
628	ELEC-9.5.11	Supplying, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	398000
		a) End suction back pull out pump, Std fitted with BRONZE Impeller & gland packing, capable of delivering 137 Cum/hr(2280 LPM) at a total head of 70 M when operated at 2150 rpm and pump duty as per TAC		
		b) Liquid cooled, 68 BHP at 1800 rpm, Diesel engine (Radiator cooled) 12 Volts starting system with standard accessories		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
629	ELEC-9.5.12	Supplying , installation, Testing and commissioning of Diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	348000
		a) End suction back pull out pump, Std fitted with BRONZE Impeller & gland packing, capable of delivering 97 Cum/hr(1620 LPM) at a total head of 56 M when operated at 2150 rpm and pump duty as per TAC		
		b) Liquid cooled, 50 BHP at 1800 rpm, Diesel engine (Radiator cooled) 12 Volts starting system with standard accessories		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		
		JOCKEY PUMPS		
630	ELEC-9.5.13	Supplying , installation , testing and commissioning of electric driven pressurisation / Jockey pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	49000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 180 lpm at 56 Mtr head conforming to IS 1520		
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps : Kirloskar / Mather&Platt. Makes of Motors : Siemens/ ABB/ Kirloskar		
631	ELEC-9.5.14	Supplying , installation , testing and commissioning of electric driven pressurisation / Jockey pump suitable for automatic operation and consisting of following : complete in all respect as required	1 Set	72000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 180 lpm at 70 Mtr head conforming to IS 1520		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps : Kirloskar / Mather&Platt. Makes of Motors : Siemens/ ABB/ Kirloskar		
632	ELEC-9.5.15	Supplying , installation , testing and commissioning of electric driven pressurisation / Jockey pump suitable for automatic operation and consisting of following : complete in all respect as required		110000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 180 lpm at 120 Mtr head conforming to IS 1520		
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps : Kirloskar / Mather&Platt. Makes of Motors : Siemens/ ABB/ Kirloskar		
		BOOSTER PUMPS		
632	ELEC-9.5.15	Supplying , installation , testing and commissioning of electric driven Terrace / Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.	1 Set	56000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 900 lpm at 45 Mtr head conforming to IS 1520		
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps : Kirloskar / Mather&Platt. Makes of Motors : Siemens / ABB / Kirloskar		
633	ELEC-9.5.16	Supplying , installation , testing and commissioning of electric driven Terrace / Mono Bloc Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.	1 Set	43500
		a) Horizontal type, centrifugal End Suction pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 900 lpm at 45 Mtr head conforming to IS 1520		
		b) Three Phase High Speed Centrifugal Pump. Pump with CI Impeller and Gland Packing with 9.3 KW / 12.5HP, 2 pole, TEFC, 415 V, 3ph motor		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes : Kirloskar		
634	ELEC-9.5.17	Supplying , installation , testing and commissioning of electric driven Terrace / Mono Bloc Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.	1 Set	41500
		a) Horizontal type, centrifugal End Suction pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 750 lpm at 35 Mtr head conforming to IS 1520		
		b) Three Phase High Speed Centrifugal Pump. Pump with CI Impeller and Gland Packing with 7.5 KW / 10 HP, 2 pole, TEFC, 415 V, 3ph motor		
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes : Kirloskar		
635	ELEC-9.5.18	Supplying , installation , testing and commissioning of electric driven Terrace / Mono Bloc Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.	1 Set	38200
		a) Horizontal type, centrifugal End Suction pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 450 lpm at 35 Mtr head conforming to IS 1520		
		b) Three Phase High Speed Centrifugal Pump. Pump with CI Impeller and Gland Packing with 5 KW / 7.5 HP, 2 pole, TEFC, 415 V, 3ph motor		

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1	2	3	4	5
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.		
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes : Kirloskar		
		MS PIPES		
636	ELEC-9.5.19	Providing , laying, testing & Commissioning of following classes MS pipes conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc., complete. Makes: Jindal / Hissar / Tata pipes/Prakash Surya		
		C-CLASS MS PIPES		
	a	250 mm dia	1 Mtr	3400
	b	200 mm dia	1 Mtr	2950
	c	150 mm dia	1 Mtr	2250
	d	100 mm dia	1 Mtr	1400
	e	80 mm dia	1 Mtr	930
	f	65 mm dia	1 Mtr	700
	g	50 mm dia	1 Mtr	560
	h	40 mm dia	1 Mtr	475
	i	32 mm dia	1 Mtr	375
	j	25 mm dia	1 Mtr	280
		B- CLASS MS PIPES		
	a	250 mm dia	1 Mtr	3000
	b	200 mm dia	1 Mtr	2600
	c	150 mm dia	1 Mtr	1800
	d	100 mm dia	1 Mtr	1200
	e	80 mm dia	1 Mtr	850
	f	65 mm dia	1 Mtr	630
	g	50 mm dia	1 Mtr	490
	h	40 mm dia	1 Mtr	370
	i	32 mm dia	1 Mtr	300
	j	25 mm dia	1 Mtr	250
637	ELEC-9.5.20	Supplying and fixing single headed Internal / External hydrant valve with instantaneous Gun metal couplings of 63mm dia with Cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gun Metal cap and chain as required. Makes: Newage/ Winco/ Padmini / Safex/Minimax/ Newtech	1 No	7300

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
638	ELEC-9.5.21	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze / Gun metal seat duly ISI marked complete with Nuts, Bolts, Washers, gaskets, conforming to IS 13095 of following sizes as required. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / SANT/NEU-G		
	a	(a) 250 mm . dia	1 No	11500
	b	(b) 200 mm . dia	1 No	4900
	c	(c) 150 mm dia	1 No	4100
	d	(d) 100 mm dia	1 No	3150
	e	(e) 80 mm dia	1 No	2900
639	ELEC-9.5.22	Providing, installation, testing and commissioning of dual Plate non - return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc as required Makes: BDK / NEU-G / Leader/ Zolotto / SANT		
	a	a) 250mm dia	1 No	18000
	b	(b) 200 mm dia	1 No	9200
	c	(c) 150 mm dia	1 No	6600
	d	(d) 100 mm dia	1 No	3500
	e	(e) 80 mm dia	1 No	3400
	f	(f) 50 mm dia	1 No	1800
640	ELEC-9.5.23	Manufacture, Supply and delivery of CI Wafer Lug type Butterfly Valves conforming to IS 13095/1991 (Reaffirmed 1998) excluding transportation, CED and taxes etc., complete. Operation done with worm actuator ISI marked Rate at Ex-Factory Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto /SANT/NEU-G		
	a	250 mm . dia	1 No	15300
	b	200 mm . dia	1 No	11000
	c	150 mm dia	1 No	7000
	d	100 mm dia	1 No	4700
	e	80 mm dia	1 No	3500
	f	(50 mm dia	1 No	2800
641	ELEC-9.5.24	Providing, installation, testing and commissioning of gun metal valves of following sizes as required. Make: NEU-G/Zolotto/Padmini/SANT		
	a	50 mm dia	1 No	1600
	b	40 mm dia	1 No	1300
	c	32 mm dia	1 No	1175

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
642	ELEC-9.5.25	Supplying and fixing 63mm dia, 15 mtr long RRL hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Makes: Newage/ Winco/ Padmini / Safex / Minimax/NewTech	1 No	5500
643	ELEC-9.5.26	Supplying and fixing 63mm dia, 15 mtr long CP hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Makes: Newage/ Winco/ Padmini / Safex / Minimax/NewTech	1 No	4900
644	ELEC-9.5.27	Supply, installation, testing and commissioning of cast iron Y – Stainer flanged end with SS mesh of following sizes confirming to IS specifications complete with rubber gasket, GI bolts , nuts, washers etc as required Makes: Leader / Zolotto/SANT.		
	a	250mm dia	1 No	18400
	b	200 mm . dia	1 No	17000
	c	150 mm dia	1 No	8000
	d	100 mm dia	1 No	4300
	e	80 mm dia	1 No	3900
645	ELEC-9.5.28	Supplying and fixing First -Aid Hose Reel with MS construction spray painted in Post office Red, Conforming to Is 884 with upto date amendments, complete with the following as required.	1 No	6700
		a) 36.6 Mtr Long 20mm (Nominal internal) dia water hose Thermoplastic / Textile reinforced / Rubber braided / Polypropylene Type - 2 as per IS:12585 Makes: Reliance/ Newage/ Safex/NewTech/Winco/Minimax		
		b) 20mm (Nominal internal) dia gun metal ball/gate valve and nozzle. Makes:NEU-G/SANT / Safex.		
		c) Drum and brackets for fixing the equipments on wall.		
		d) Connections from riser with 25mm dia stop valve (gun metal) & MS pipe.		
646	ELEC-9.5.29	Supplying and fixing of hose cabinet of size 750mm X 600mm x 250mm made of No 16 gauge SWG CRCA sheet with 6mm thick glazed glass door including necessary locking arrangement suitable to accommodate 2 Nos 15 mtr long Hose pipe, 1 No branch pipe, mounted on wall OR raised brick platform and duly painted with Post office red externally and white internally with synthetic enamel paint complete in all respect, for external hydrant as required. makes:Minimax/Safex/Newage/Winco/Padmini/NewTech	1 No	2900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
647	ELEC-9.5.30	Supply and fixing 63mm dia Gun metal branch pipe with 20mm (Nominal internal diameter) size Gun metal / SS nozzle conforming to IS 903, suitable for instantaneous connection to interconnect hose pipe coupling as required. Makes: Newage/ Winco/ Padmini / Safex / Minimax/NewTech	1 No	2300
648	ELEC-9.5.31	Supply and fixing 4 way fire brigade connection of cast iron body with 4 Nos Gun metal Male instantaneous inlet couplings complete with cap and chain as required for 150mm dia MS pipe connection, conforming to IS 904 as required. Makes: Newage/ Winco/ Padmini / Safex / Minimax/NewTech	1 No	8000
649	ELEC-9.5.32	Supply and fixing 2 way fire brigade connection of cast iron body with 2 Nos Gun metal Male instantaneous inlet couplings complete with cap and chain as required for 100mm dia MS pipe connection, conforming to IS 904 as required. Makes: Newage/ Winco/ Padmini / Safex / Minimax/NewTech	1 No	6000
650	ELEC-9.5.33	Supply and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25mm dia Gun metal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	1 No	14300
651	ELEC-9.5.34	Providing fixing, testing and commissioning of 15mm size quartzoid bulb type sprinklers of rating 68° C. pendent / side wall with required accessories. Makes: HD / TYCO / VIKING / NEWAGE/ SHARP / SAFEX	1 No	440
652	ELEC-9.5.35	Supply fixing, testing and commissioning of UL approved flexible dropper of 1.5 mtr length with required accessories Makes: HD / TYCO / VIKING / NEWAGE/ SHARP / SAFEX	1 No	1050
653	ELEC-9.5.36	Providing and fixing of Pressure Switch in the MS pipe Line including connection etc as required. Makes : Danfoss / Indfoss /Systemsensor/Honeywell	1 No	2250
654	ELEC-9.5.37	Providing and fixing Flow Switches in 100mm dia MS pipe. Makes : System Sensor / Switzer /Honeywell	1 No	4800
655	ELEC-9.5.38	Providing and fixing Flow Switches in 150 mm dia MS pipe. Makes : System Sensor / Switzer /Honeywell	1 No	6700
656	ELEC-9.5.39	Supply, installation, testing and commissioning of Bourden type, stainless steel dial type pressure gauge with isolation valve and pipe having calibration of 0-16 kg/cm2. MAKES: HGURU / FIEBIG	1 No	600
657	ELEC-9.5.40	Supply, installation, testing and commissioning of 25mm dia Gate valve Makes : Zoloto / Leader / SANT/NEU-G	1 No	1050
658	ELEC-9.5.41	Supply, installation, testing and commissioning of 25mm dia Ball valve Makes : Zoloto / Leader / SANT/NEU-G	1 No	580
659	ELEC-9.5.42	Supply, installation, testing and commissioning of 25 / 20mm dia Air Release Valve Makes : Zoloto / Leader /	1 No	1100

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
		SANT		
	ELEC-9.5.43	Supply, installation, testing and commissioning of Flexible Sprinkler hos of Size..... Makes : Tyko/Newage/HD		
	a	750mm to 800 mm	1 No	900
	b	1000 mm to 1200 mm	1 No	1050
	c	1500 mm	1 No	1250
660	ELEC-9.5.44	Providing, fixing, testing, commissioning of installation control valve of Cast iron body and brass / Bronze working parts comprising of water, motor alarm, bronze seat clapper, and clapper arm, hydraulically driven mechanical gong bell to sound continuous alarm when the Wet riser / Sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass , test control box, ball valves, Ms pipe of required size, flanges, orifice plate, gasket etc of size 150mm dia as required. Makes : HD / TYCO / NEWAGE	1 No	8500
661	ELEC-9.5.45	Supplying, installing, testing and commissioning approved make CI body Foot Valve with brass strainer with necessary flanges, nuts and bolts etc., complete on to the suction line.Rate as per the lowest quotation of Bharat Fire Safety Engineers. Makes:Normex /SANT		
	a	a) 200mm nominal dia	1 Ea	22300
	b	b) 150mm nominal dia	1 Ea	12000
	c	c) 100mm nominal dia	1 Ea	6700
	d	d) 80mm nominal dia	1 Ea	4600
	e	Supply and laying of 300mm dia NP2 RCC Hume pipe with Collars for Road crossings -As per Civil SoR		
662	ELEC-9.5.46	Supplying and wrapping the anticorrosive material for buried pipes with coating of Primer and wrapping with 4 mm thick polymer corrosion resistant tape as per IS : 10221 with 15 mm overlap as per specificatios. Make:IWL(PIPE KOT) or its equivalent		
	a	a) 200mm nominal dia	1 Mtr	400
	b	b) 150mm nominal dia	1 Mtr	300
	c	c) 100mm nominal dia	1 Mtr	#REF!
	d	d) 80mm nominal dia	1 Mtr	230
663	ELEC-9.5.47	Supply, fabricating , installing structural steel supports for fixing all sizes of MS pipes from ceiling / wall with MS Channels, Angles, Flats, Rods, as required at site with anchor fasteners, Clamps, threaded rods, nuts, bolts,washers etc complete with painting.	1 Kg	63
		SECTION 10		
	10.1	GENERATORS SPECIFICATION		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
664	ELEC-10.1.1	<p>Supply Installation Testing And commissioning of DG Set complete with 1500 RPM Diesel Engine of suitable BHP & AC Brush less SPDP Alternator mounted on a common base Frame & coupled through a flexible coupling or close coupled.</p> <p>Alternator: It shall be self regulated, self excited and confirms to IS: 13364/1992 or latest version with regulation of +5% from No load to full load, IP23, with standard Alternator Protection(Over voltage, over speed & under voltage).</p> <p>Diesel Engine: It shall have residential silencer, up to 10 M exhaust piping , electronic / Mechanical governor, Manual & electric Start, Batteries, Fuel tank (with Stand) & piping, control panel (16 G) with MCCB (4P; 25 KA), Ammeter, Voltmeter, Frequency Meter, Energy Meter & Hour Meter, Engine instruments panel and AVM. The diesel engine shall be capable of providing 10% over load for 1 Hr for every 11 Hrs of continuous running at full load.</p> <p>Accoustic Enclosure: Weatherproof, powder coated Accoustic enclosure for DG set for sound attenuation fabricated from 1.6 mm CRCA sheet steel (structure) with side wall fabricated from 1.6 mm CRCA sheet and filled with foam as per CPCB norms latest amendments & IS 8183 .The doors are fabricated from 1.6 mm CRCA sheet packed with accoustic material, floor of MS chequered plate 5.0 mm thick, All doors/ opening are sealed with neoprene/ EPDM gaskets.</p>		
		<p>The enclosure has built in fuel tank, residential silencer (isolated from main DG chamber) with protection and tripping of DG set against temperature of more than 50 °C. All controls for operation of DG set are from outside the enclosure with DG control panel having processor based genset monitoring and control system MCCB/ACB Ammeter, voltmeter, Pf meter, frequency meter, KWH meter, Ind. Lamps etc. mounted inside enclosure , visible and accessible from outside. The enclosure should be suitable for following capacity DG sets and alternator.Noise level is less than 75 db (A) at a distance of 1 Mtrs as per CPCB-II norms,complete in all respect of following capacity :</p>		
		Radiator Cooled and Turbocharged		
	a	15 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	340000
	b	30 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	440000
	c	40 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	548000
	d	62.5kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	660000
	e	125 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	860000
	(a to e)	Makes: Cummins/Koel Green/Sterling/mahindra		
	f	160 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	1280000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	g	200 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	1600000
	h	250 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	1960000
	i	320 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	2500000
	j	380 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	2890000
	(f to j)	Makes:Cummins/Koel Green/Sterling		
	k	500kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	3195000
	l	625 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	4000000
	m	750 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	4980000
	n	1000 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	6000000
	o	1250 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	8100000
	p	1500 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	9200000
	(k to p)	Makes:Caterpillar/Perkins/Cummins		
665	ELEC-10.1.2	Supply Installation Testing and Commissioning of AUTO MAINS FAILURE (AMF) Panel with IP 52 protection, fabricated from CRCA sheet steel 2mmThick , Powder coated finish , Engine START & STOP commands,control RELAYS, selector switches for Ammeter & Voltmeter, Ammeter & Voltmeter , Control & Power Contactors, Timers, Electronic Hooter , Visual & Alarm indication for faults, UPS, operator interface panel complete in all respect suitable for following capacity DG sets:		
		PLC based AMF Panel		
	a	25 to 40 KVA		75000
	b	50 to 63.5 KVA		110000
	c	80 to 160 KVA		155000
	d	180 to 250 KVA		210000
	e	320 to 500 KVA		260000
		Electro-Mechanical Relay Based AMF Panel		
	f	25 to 63.5 KVA		55000
	f	80 to 180 KVA		92500
	g	200 to 500 KVA		135000
666	ELEC-10.1.3	Supply and fixing of Thermal Insulation With Asbestos Rope for Exhaust pipe	Mtr	251
667	ELEC-10.1.4	Supply and fixing of Thermal Insulation With Rock/Glass Wool wwith Alluminium cladding (Density -96 Kg/m3 thickness -50mm) for Exhaust pipe	Mtr	1247

SECTION 11

	11.1	INVERTERS and ONLINE UPS SYSTEMS		
668	ELEC-11.1.1	Supply and installation of Inverter(home UPS system) pure sine wave out put, single phase input / Single phase output. Makes: Exide / Amar Raja / Samhitha/ Microtek		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	a	800 VA, 12 V DC	1 No	8500
	b	1400 VA, 24 V DC	1No	12000
	c	2000 VA, 36 V DC	1No	17000
669	ELEC-11.1.2	Supply installation Testing and commissioning of KVA on line UPS system confirms to IS 16242(Part-I):2014 and IEC 60240-1 : 2008 with IGBT technology pure sine wave out put, double conversion with auto and manual static by pass switch single phase input / Single phase output. Makes: Numeric/APC/Consul Neowatt/Sakshham /Emerson		
	a	2.0 KVA , 36VDC	1 No	18500
	b	3.0 KVA , 72/96 VDC	1 No	30000
	c	3.0 KVA , 72/96 VDC with Isolation Transformer	1 No	36000
	d	6.0 KVA , 192/240 VDC with Isolation Transformer	1 No	62000
	e	7.0 KVA , 192/240 VDC with Isolation Transformer	1 No	75000
	f	10.0 KVA , 192-240 VDC with Isolation Transformer	1 No	90000
670	ELEC-11.1.3	Supply installation Testing and commissioning of KVA on line UPS system as per IEC 62040-I(Safety) ,IEC 62040-3(Performance) for critical IT solutions ,fully digital IGBT Converter and Inverter ,with Internal /External isolation transformer from DC to AC, PWM, pure sine wave out put, double conversion ,output pf 0.9, with parallelling facility , standard communicaton features/options auto and manual static by pass switch three phase input / Three phase output. Accoustic level shall be less than 58dB at 1 mtr distance. Makes: Numeric/APC/Consul Neowatt/Sakshham /Emerson		
	a	10.0 KVA 312/360 V DC	1 No	165000
	b	15.0 KVA 312/360 V DC	1 No	180000
	c	20.0 KVA 312/360 V DC	1 No	210000
	d	30.0 KVA 312/360 V DC	1 No	275000
	e	40.0 KVA 312/360 V DC	1 No	350000
671	ELEC-11.1.4	Supply installation Testing and commissioning of KVA on line UPS system as per IEC 62040-I(Safety) ,IEC 62040-3(Performance) for critical IT solutions ,fully digital IGBT Converter and Inverter ,with Internal /External isolation transformer from DC to AC, PWM, pure sine wave out put, double conversion ,output pf 0.9, with parallelling facility , standard communicaton features/options auto and manual static by pass switch three phase input / Three phase output. Accoustic level shall be less than 58dB at 1 mtr distance. Makes: Mitsubishi/ Socomec /Schiender(APC)/ Legrand		
	a	60 KVA	1 No	650000
	b	80.0 KVA	1 No	850000
	c	100.0 KVA	1 No	985000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SoR 2018-19
1	2	3	4	5
	d	120.0 KVA	1 No	1118000
	e	160.0 KVA	1 No	1248000
	f	200.0 KVA	1 No	1274000
672	ELEC-11.1.5	Supply and providing of UPS cum battery rack up to 4 batteries	1 No	1500
673	ELEC-11.1.6	Supply and providing of battery rack for 5 to 10 batteries (42 AH)	1 No	3000
674	ELEC-11.1.7	Supply and providing of battery rack upto 11 to 20 batteries (42 AH)	1 No	5000
675	ELEC-11.1.8	Supply and providing of battery rack upto 20 to 30 batteries (65 & 100 AH)	1 No	9000
676	ELEC-11.1.9	Supply and fixing of 12V 26 AH SMF battery with 3 years Warrenty, including wire leads ,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	3000
677	ELEC-11.1.10	Supply and fixing of 12V 42 AH SMF battery with 3 years Warrentyincluding wire leads ,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	4660
678	ELEC-11.1.11	Supply and fixing of 12V 65 AH SMF battery with 3 years warrenty including wire leads ,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	6810
679	ELEC-11.1.12	Supply and fixing of 12V 100 AH SMF battery with 3 years warrenty including wire leads,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	10440
680	ELEC-11.1.13	Supply and fixing of 12V 120 AH SMF battery with 3 years warrenty including wire leads,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	11160
681	ELEC-11.1.14	Supply and fixing of 12V, 150 AH SMF battery with 3 years warrentyincluding wire leads,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	15600
682	ELEC-11.1.15	Supply and fixing of 12V, 200 AH SMF battery with 3 years warrenty including wire leads ,connections etc complete., Makes: Quanta / Racket / Exide.	1 No	21600
683	ELEC-11.1.16	Supply and fixing of 12V, 120 AH MF battery including wire leads Makes: Amar Raja (Power Zone) or Equivalent model of Exide / Panasonic / Gotech.	1 No	9500
684	ELEC-11.1.17	Supply and fixing of 12V, 150 AH MF battery including wire leads Makes: Amar Raja (Power Zone) or Equivalent model of Exide / Panasonic / Gotech.	1 No	12000

**Office of the Chief Engineer (R&B) Buildings
Convener-Member,
Committee of Chief Engineers-Buildings-SoR**

Procs.No. ENC(B)/DEE-3/AEE9/SoR: 2018-19

Dt: 29.06.2018.

Sub:- Printing of Buildings-SoR for all the Engineering Departments specific to the functioning of Building works – Buildings-SoR:2018-19 – Communication of Buildings-SoR – Reg.,

Ref:- 1. G.O.Rt.No.95, T, R&B (R.1) Dept, dt:18.01.2015.
2. Minutes of Committee of Chief Engineers meetings for finalizing the Building-SoRs held on Dt:27.06.2018

The Government of Andhra Pradesh have constituted a Committee of Chief Engineers of Engineering departments dealing with Building works for finalizing and communicating Buildings-SoR (Civil & Electrical) vide G.O. 1st cited. In accordance therewith the Committee of Chief Engineers has finalized and approved the Buildings-SoR: 2018-19 in the Minutes of Meeting held on Dt.27.06.2018.

The rates for the Building items (Civil, Water Supply & Sanitary and Electrical items) are to be followed henceforth by all the concerned departments for building works. The rates of Labour, Common Material & Work items, Public Health items, Conveyance Rates of Materials & Hire charges approved and published in Common SoR-2018-19 remain applicable. No other items other than the items communicated in this Buildings-SoR2018-19and Common SoR-2018-19shall be introduced.

The Heads of Departments mentioned below are authorized to print the Buildings-SoR: 2018-19. The unauthorized printing & selling of the Buildings-SoR is strictly prohibited.

The revised rates will come into force with immediate effect.

The receipt of the proceedings may please be acknowledged.

Enclosed: Buildings SoR: 2018-19 as above

M. Subba Rao
Sd /- 29.06.2018
Chief Engineer (R&B) Buildings&RSW
Convener-Member,
Committee of Chief Engineers-Buildings-SoR

To

1. Chief Engineer (RSW & Buildings), Roads & Buildings Department, MG Road, Vijayawada.
2. Chief Engineer (R&B) (Electrical), R&B Department, MG Road, Vijayawada.
3. Engineer-in-Chief, Public Health Department, Mahatma Gandhi Inner Ring Rd, Gorantla, Guntur-522034.
4. Engineer-in-Chief (P.R.), Panchayat Raj Department, D.No.3-20/4,Tankasala Kalyana Mandapam, Enikepadu, Vijayawada.
5. Engineer-in-Chief, Tribal Welfare & Social Welfare Department, Plot No.401 & 402, Garuda Enclave, Tadepalli, Guntur District
6. Chief Engineer (Civil), Tirupathi Tirumala Devasthanams, Tirupati
7. Chief Engineer (AP Housing Board) Flat No.101, Vijayalakshmi residency, ESI Hospital Road, Gunadala, Vijayawada.

8. Chief Engineer (Housing Corporation) 12-52, Prasadampadu, Opp. to Tankasala Kalyana Mandapam, Enikepadu, Vijayawada.
9. Chief Engineer(APSRTC), RTC House, 1st floor of PNBS, Vijayawada.
10. Chief Engineer(APMSIDC), Illrd Floor, DM&HS Campus, Sultanbazar, Koti, Hyderabad.
11. Chief Engineer (AP Police Housing & Welfare Corporation), Labbipet, Vijayawada
12. Chief Engineer, Vijayawada Municipal Corporation, Vijayawada.

Copy also to

1. Engineer-in-Chief(Admn, NH, CRF), R&B Department, MG Road, Vijayawada
2. Engineer-in-Chief (IW)I&CAD, Irrigation Department, Ramavarapadu, Vijayawada-520008.
3. Chief Engineer (COT), 76-16-4A/1, 1st floor, Iron Yard, Opp. to Ramayalam, Vijayawada-520012.
4. Chief Engineer (MDRs) R&B Department, MG Road, Vijayawada
5. Chief Engineer (RRs&LWE) R&B Department, MG Road, Vijayawada
6. Chief Engineer (QC), R&B Department, MG Road, Vijayawada

Chief Engineer (R&B) Buildings & RSW



Government of Andhra Pradesh

A.P. Revised Standard Data (With Schedule of Rates 2018-19 (Effective from 01-06-2018))

Part – 1 For IRRIGATION & CAD WORKS and LEADS & LIFTS (Common to all Department)

BOARD OF CHIEF ENGINEERS

Office of the Engineer-in-Chief(I.W)
Currency Nagar, Ramavarappadu,Vijayawada.

Procs.No.ENC/IW/P&M/EE.1/DEE-2/AEE(K)/ SoR 2018-19/Vol.2 dt:23.08.2018

Sub:- A.P. Revised Standard Data with SoR 2018-19 for Water Resources Department works (Part-I) - approved – Printing & Communication of Standard Data – Reg.,

Ref:- 1) G.O.Ms.No.49, I&CAD (PW: Reforms) Dept., Dt: 02.03.2009.
2) Minutes of BOCEs meeting for Schedule of Rates Dt: 21.08.2018.
3) SoR Procs.No.ENC/IW/SE(P&M)/EE.1/DEE-2/AEE(K)/SoR 2018-19/Vol.2 Dt: 23.08.2018.

The BoCEs meetings for finalization of Schedule of Rates (SoR) for WR Dept. (Part-I), Road & Bridges (Part-II) and Public Health Items (Part-IV) were held on 26.06.2018,13-07-2018, 03.08.2018, 13.08.2018 and 16.08.2018 and approved minutes of meeting is placed on the Water Resources website i.e., <http://irrigation.ap.gov.in>. Subsequently, based on the approved minutes of meeting, the rates pertaining to WR items(Part-I), Roads & Bridges items(Part-II) & Public Health Items(Part-IV) are updated and proceedings are issued for approved SoR-2018-19 for Parts-I,II & IV on 23.08.2018 by Engineer-in-Chief(Admn), WR Dept. & Chairman, BoCEs.

Based on the approved rates of SoR-2018-19 for all the materials and capital cost of machinery, the unit rate of work items related to Water Resources Department are arrived for the year 2018-19.

NEW DATA ITEM PROPOSED IN THE A.P.REVISED STANDARD DATA (PART-1) for

Lifting of water from rivers/drains to agricultural fields and where there is no element of excavation

During the BoCEs meeting held on 26.06.2018, it was observed that there is no separate data item in Water Resources Department data for arriving lifting of water to sustain the crop etc. in emergency situations like drought-prone conditions whenever there is a dearth of irrigation water.

As there is no data in WR items, the field staff used to adopt the PH rate for dewatering which is objected by the Vigilance & Enforcement Department comparing the rate with that of TAW-2-1 item rate (Dewatering in Tunnels) of WR item.

Hence, a new data is arrived based on TAW-2-1 with SoR 2017-18 rates for the purpose of above use. While arriving the unit rate, the machinery charges are arrived @ **hp-hr** and labour & pump laying & dismantling component, being same for all capacities of pumps, is arrived @ per **hour rate for both Diesel and Electrical Driven Dewatering pumps. The BoCEs has approved the proposed data and it is introduced in Preliminary and Maintenance Works Chapter against PMW-3-27(a) & (b)**

By incorporating approved labour, material and Hire Charges for SoR 2018-19 & Percentage Provision of 13.615% towards Contractor's profit and overhead charges in the items, the A.P. Revised Standard Data (unit rate for work items) for the year 2018-19 is finalized. Any additions, modifications or deletions in the existing data must be approved by BOCEs. One soft copy is herewith enclosed.

Encl:Soft copy of A.P.Revised Standard Data for WR Department for the year 2018-19.

Sd/-K.Srinivas,dt:23.08.2018,
Engineer-in-Chief(I.W.)
Chairman, BOCE(SoR)

- I) Copy communicated to the Secretary to Govt., WR Dept., 4th Block, A.P.Secretariat Buildings, Vijayawada.
- II) Copy communicated to the following Heads of Departments along with Enclosures for information.
 - 1. Engineer-in-Chief (Admn.,NH &CRF)., Roads & Buildings Department.
 - 2. Engineer-in-Chief (P.H.), Public Health Department.
 - 3. Engineer-in-Chief (P.R.), Panchayath Raj Department.
 - 4. Engineer-in-Chief (RWS) R W S, Department.
 - 5. Chief Engineer (Buildings&RSW), R&B Department.
- III) Copy of Scheduled of Rates 2018-19 with basic rates & Standard data, part-1 (WR Dept. works) communicated to the respective E-mail ids of all the Engineers-in-Chief, Chief Engineers and Regional Superintending Engineers of Irrigation circles of Vijayawada, Guntur, Dowlaiswaram and Chittoor of Water Resources Department for taking necessary action
- IV) Copy to DEE(Computers), EnC(AW) for uploading the approved SoR-2018-19(part-I, Part-II & Part-IV) on the Water Resources Department website.

Sd/-K.Srinivas,dt:23.08.2018,
Engineer-in-Chief(I.W.)
Chairman, BOCE(SoR)

GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Irrigation & CAD Department - Adoption of Revision and Updating of Andhra Pradesh Standard data in all Engineering/Public Works Department and other organisations - Orders - Issued.

IRRIGATION & CAD (PW- REFORMS) DEPARTMENT

G.O.Ms. No.49

Dated: the 2nd March, 2009
Read the following:-

1. G.O.Rt.No.7326, GA (GPM/AR) Department dated 26.10.2005
2. From the Director General D.O.Letter.No.CGG/AP Standard Data/2006-07, dated 8.12.2006
3. Govt.Memo.No.36710/Reforms/I&CAD(PW) Dept., dated 22.6.2007
4. U.O.Note.No.36710/Reforms/2005, I&CAD (PW) Dpt., dt.29.6.2007
5. Govt.Memo.No.36710/Reforms/2005, I&CAD Dept., dated 10.3.2008
6. From ENC (AW)/IW I&CAD Dept., Letter.No.ENC/IW/P&M/EE.1/DEE.8/19200-98, dated 21.4.2008

ORDER:

The basic components for preparing any estimate are Standard Specifications, Standard Data, and Schedule of Rates for construction materials, skilled and un-skilled labour and hire charges of machinery utilized on works. To get the work done, as per the standard specifications, required quantities of recommended materials, requirement of specific need based manpower, deployment of proper utility based machinery and duration of its utilization are to be observed and quantified for each unit of work, and this is called Standard Data. Thus, the Standard Data gives the details of various inputs in terms of quantities required for one Unit of any work. Schedule of rates for material, skilled and unskilled labour are fixed and revised by the Board of Chief Engineers' once in a year and these are called Standard Schedule of Rates. When the Standard Schedule of Rates and Hire charges of machinery are incorporated in the inputs of Standard Data and Standard Schedule of Rates it will have direct bearing on the preparation of project Estimates and consequent finalization of Tenders.

(P.T.O.)

2. The existing AP Standard Data for various construction items were based on observations made several decades back mostly by utilizing manpower for execution of all items of works, and deployment of machinery was at the barest minimum. The advent of latest machinery and their extensive use has changed the structure and methodology of data formulation and rate structure. There is a need to revise the present "Standard Data" for all items of works dealing with Public works. Realizing the urgency and importance to have realistic data, Government in the GO.Rt.No.7326 G.A (GPM & AR) Department dated 26-10-2005 constituted a High Level Committee under the chairmanship of Special Chief Secretary, General Administration (GPM&AR) Department, to advise on "Updating and Revising the A.P.Standard Data". A project for Standard Data (revision) and Schedule of Rates was conceived and entrusted to the Centre for Good Governance. Keeping in view the strategy, factors considered and classification of works, a number of High Level Committee meetings and review meetings were conducted at Centre for Good Governance/ A.P.Secretariat and in the offices of concerned Engineers-in-Chief I&CAD, Public Health, Panchayati Raj and Roads & Buildings Departments etc. Their specific views, suggestions and recommendations were taken into account, besides collecting the data from various sources while finalizing the Draft AP standard Data and Standard Schedule of Rates. This has been cleared by the Board of Chief Engineers' and finally by the High level Committee. The Standard Data has been revised and updated in four parts considering nature of work, location of work and magnitude of work as indicated below.

- | | |
|-------------|--|
| 1. PART - I | : Irrigation & Command Area Development. |
| 2. PART- II | : Roads & Bridges. |
| 3. PART-III | : Buildings |
| 4. PART-IV | : Drinking Water Supply Schemes. |

3. The revision of Standard Data and Schedule of Rates in respect of works items of Irrigation Department has been taken up by the SPIU (Irrigation) and completed as per the C.W.C guidelines and B.I.S standards and also observations and recommendations made by the High Level Committee. In respect of other Departments, MORTH data is adopted for Roads & Bridges, where higher capacity machinery can be deployed and MORD data is adopted for Roads & Bridges in Rural areas. For other works data as per MORTH, MORD, and C.P.W.D. etc., is adopted. The comparative estimates have been prepared by the T.R. & B Dept., Engineering-in-Chief (Irrigation) and MA & UD Department for various types of works of a magnitude of Rs.15-20 crores, based upon the earlier data and the newly revised and proposed data .

4. After detailed deliberations and discussion on the above issue, the Govt. accept the recommendations of Board of Chief Engineers and High level Committee and accordingly issue the orders for adoption of the Revised and Updated Standard data in all Engineering/ Public works Department and other organisations in four parts considering nature of work, location of work and magnitude of work as indicated below. The four parts of Standard Data

booklets are forwarded to Engineer-in-Chief (AW), who in turn will publish the authenticated version and circulate a copy to all works Departments.

1. PART - I : Irrigation & Command Area Development.
2. PART- II : Roads & Bridges.
3. PART-III : Buildings
4. PART-IV : Drinking Water Supply Schemes.

5. The Revised Data now approved is to be adopted by all Engineering Departments/ all Public Works Department and other organisations, duly superseding all the earlier orders issued on the subject.

6. These orders shall come into force from the date of issue.

7. This order issues with the concurrence of Finance Department vide their U.O.No.5532/520/Exp.PW.I Dept/08, dated 13-5-2008.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

RAJIV RANJAN MISHRA
SECRETARY TO GOVERNMENT

To

All the Engineer-in-Chief of Irrigation & CAD Department.

All the Chief Engineers of Irrigation & CAD Department.

The Commissioner, Commissioner of Tenders,

The Engineer-in-Chief, PR & RD Department, Hyderabad.

The Engineer-in-Chief (R&B) Admn., Dept., Hyderabad.

The Engineer-in-Chief (PH) Hyderabad.

Copy to:

All the Collectors & Dist. Magistrate of Andhra Pradesh

All Sections in Irrign. & CAD (PW/Irrgn.) Dept.

The Accountant General Andhra Pradesh Hyderabad.

The G.A. (Cabinet) Dept. w.r.t. U.O.No.79/2009, dated 17-2-2009.

The G.A. (GPM&AR) Dept.

The Finance (W&P) Dept.

The P.S. to Ministers (PR & RD/ MA & UD/ T.R. & B / Housing)

The P.S. to Prl. Secy. (SKJ)/ P.S. to Secretary (AD)/ P.S. to Secretary (RRM)

The P.S. to Prl. Secretary, Housing/P.S. to Prl. Secy, M.A. & U.D. / P.S. to Secretary, T.R.& B / P.S. to Prl. Secretary, PR & RD./P.S. to Secretary , Housing.

All the Advisors of Irrgn. & CAD Dept. (Telangana)

SF/SC.

// FORWARDED::BY ORDER//

J. Narasimha Teerthava.
SECTION OFFICER

code and index for work items of standard data		
Item Code	Item of the work	Page No.
Proceedings for the Standard Data		
Copy of the G.O.Ms.No.49, I & CAD (PW: Reforms) Dept., dt.:2-3-2009.		
PREAMBLE & GUIDELINES		i-xii
PART-1	IRRIGATION	
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A.P. REVISED STANDARD DATA

PREAMBLE

The AP Revised Standard data for various construction items has come into existence as per the Government orders G.O.Ms.No.49, I & CAD (PW: Reforms) Dept., dt.:2-3-2009.

The background for adoption of A.P. Revised Standard Data is:

1. Government, in GO 7326 (GAD-GPM& AR), Dated 26-10-2005, has observed that the age old "Standard data" requires revision and updation with reference to the latest machinery and contemporary practices and has constituted a **High Level Committee** to advise on updating and revision of standard data and schedule of rates. The work has been taken up by CGG and SPIU-irrigation. The secretary (Irrigation) is the member- convener of the committee

Accordingly the data has been revised adopting the procedures and guidelines given by CWC, Report on "committee on cost control of river valley Projects, BIS specifications, NHAI, MORTH, MORD, CPWD and Government of Karnataka and revised data and formulated schedule of rates for all infrastructure Departments (I&CAD, R&B, PR and PH). The team of senior engineers interacted with the S.R Committee of Karnataka on implementation and improvements needed. For Water Resources work items, the data pattern as adopted by Karnataka has been considered and for other Departments, the data adopted by MORTH,MORD and NHAI etc. is adopted

2. Sequence followed in revision of standard data is,
 - (a) The first step is the revision and formulation of standard data for each work component.
 - (b) The second step is to work out the details of inputs. This enables to generate the unit work item rates, by incorporating the use rates of machinery, materials, labour charges and other supplementary parameters.
 - (c) The third step is to develop software tool to generate unit rate using the software (completed for Water Resources work items by the SPI Unit of Irrigation)

3. The Detailed draft data was communicated to all the HOD's and interacted through many seminars and discussions and incorporated the relevant features. The Board of chief engineers in their meetings have recommended for acceptance to the data formulated and schedule of rates. It was proposed to examine the recommendations on important parameters, to refer to high level committee, for their specific recommendations for adoption, as they are common to all departments.

The committee made in depth study on the methodology and systems followed by the reputed National organizations and other States and made detailed deliberations with HOD's and representatives of Builders Association of India and made recommendations to the Government, on adoption of such parameters in A.P.

4. The Chief Secretary held a detailed discussions on 04-07-2007, with the Secretaries of the Departments and Heads of Departments.

GUIDELINES

- 1)** The Revised Standard Data is formulated under four Parts, which are applicable to all the Engineering Departments and other Organisations.

PART -1: Water Resources Department work items (Dam and Allied Works, Canals and Allied Works, Canal C.D. Works, Tunnels and Allied Works, Preliminary and Maintenance Works, Hydraulic Gates and allied works and Leads and Lifts applicable to all Departments

PART -2: Roads and Bridges

PART -3: Buildings including Electrical Works

PART -4: Drinking Water Supply and Public Health (ONLY FOR WORKS DONE BY MANUAL MEANS)

2) Brief description of item of work. :

Brief description of the item of work to cover all important aspects of the work included in the in the Data . On reading the item description, the user should be in a position to assess the various cost components involved in the work.

3) Data for assessing quantities:

The data reflects various assessments / assumptions made in arriving at the quantities of materials, machinery, labour and other in-puts. In case of plants and equipment the output of main plant is worked out and the requirement of all other inputs and assessed to match the output of the main plant. Cycle time of operations is the criteria for assessing the output of equipment. Generally the equipment manufacturers furnish the output of machinery under ideal conditions of working. Suitable job and management efficiency factors are considered while working out the average output of machinery under field conditions. In case of combination of machinery and manpower, the assessment of manpower shall match the output of machinery.

Though cycle time of operations is the criteria for hourly / daily out-put of machinery work-force ,the actual progress of work depends on several other factors such as power interruptions, minor break-downs, time for meals and other needs of work-force, stray rains etc. Therefore, it is the general practice to consider 50 minutes as the actual working time per hour for working out the hourly / daily out-put of machinery / work-force. CWC / BIS guide-lines stipulate the actual working hours for the purpose of

equipment planning and utilisation. The daily out-put is computed duly considering the actual available working time and feed back from the field.

- For gate and hoist works, it is the general practice to specify the quantity of work in terms of number of sets of embedded parts / gates. The requirement of machinery and work-force for cutting, bending, fabrication, erection, painting etc., is assessed to commensurate with the task involved.
- The data for gates and E.M. Parts is arrived per Ton quantity.
- The data for Hoists and Gantry Cranes is worked out on the basis of capacity in tonnage

4) The lead and lift charges provided in PART-I (B) are generally applicable **and** common to all Departments. For applicability of lead and lift charges for various materials and other details, please refer to COM-LDLFT in lead and lift charges statement. For any item not covered in this part, the rates as provided in the data of the relevant works may be adopted in preparation of estimates.

5) The basic material inputs needed for all works are listed and incorporated in the data. The requirements are analyzed and the specifications adopted shall confirm to Standards published by the BIS.

- The labour and material rates will be communicated by the Board of Chief engineers.
- Unless otherwise specified, all material rates shall be exclusive of GST, duties, levies, transportation and handling costs up to project area.
- For sand, gravel, murum, stones, coarse aggregates etc, the rates are to be fixed for delivery at Quarry, adding loading charges by machinery / manual means and idle hire charges of machinery (as per table under chapter "conveyance or lead and lift charges"), as applicable.
- For steel, Cement, AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates are to be taken prevailing at major commercial centre near project area. The lead charges, as applicable are to be added in preparing estimates.
- The specifications of the aggregates for sizes and gradation and its adoption shall be as per IS 383.

6) The labour component in the data is mentioned for unit work.

- No allowance towards labour importation and labour amenities added extra as they are included in the recommended overheads.
- On Labour Component: Certain additional allowances are added extra to the wages of labour (i.e. only on labour component in the work item) in the form of percentage, as recommended by the Government/Board of chief engineers due to statutory and other provisions.
- However, If more than one area allowances, such as those for (1) Municipalities Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed

7) HIRE CHARGES OF MACHINERY:

The machinery and /or group of machinery for items of works and their output has been worked based on the availability of machinery generally in the market and working in the field successfully, duly considering cycle time, idle time, operator efficiency, type of work etc.

- The hire charge of a machinery / equipment is worked out based on the guidelines published by CWC and BIS codes.
- For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH

8) Lead Charges

- The high level committee has recommended to adopt, for conveyance by head load, a minimum lead of 50 meters and additional lead up to 150 meters in the intervals of 50 meters. Beyond 150 meters lead, only machinery rates are to be adopted.
- The basic work item rates provided in the Standard Data & Schedule of rates include 50 m or 1 km as initial lead and no lead charges shall be allowed where the source of material is within the initial lead specified in item rate. Additional lead charges shall be allowed for the lead exceeding initial lead specified in the item rate. The Guidelines may be followed regarding adding Lead charges as given against each chapter.

- The lead charges per unit quantity for conveyance of the materials are worked out, and included in the schedule of rates in increment of 50 m for head load and in increment of 1 km for mechanical mode.
- The rates for lead charges by head load up to 150 meters and by machinery up to 5 km, shall be cumulative and inclusive of lead charges for preceding lead. For lead beyond 5 km, the lead charges shall be worked out on per km basis.

9) Loading and Unloading charges for Materials

The following features are considered:

1. Loading and unloading charges are not payable for conveyance by head load.
2. Loading and unloading charges are not payable for conveyance by mechanical means, for disposal of excavated material unless specified.
3. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone, are inclusive of stacking wherever applicable.

10) LIFT CHARGES :

- The data includes initial lift charges of 3 meters ,for materials conveyance by head load, Additional leads in the interval of 1.0 meters are worked out, as additional labour input and incorporated in the chapter on" Lead and lifts" .
- Where the conveyance / lifting of material is done by mechanical means, lift charges shall not be considered, as the cycle time of operation of the machine includes lifts involved.
- The data and rates for lift charges is cumulative and are inclusive of rates for preceding lifts also.

11) Wastage of Materials

- I) Cement:** No wastage allowance is recommended towards the quantity of cement used in works, as the wastage is already included in the input and in major works , bulk quantities are used.

II) steel: The wastage of steel @ 2.5% is allowed for gates and allied structures. For RCC works the wastage is @2.5% for the reinforcement rods above 36mm dia. and @ 5% for rods below 36mm dia. including overlaps, if they are not welded. If welding is adopted for the reinforcement rods even for below 36mm dia, 2.5% of wastage is only recommended.

12) Provision for rate for water:-

The Committee has recommended not to consider the water charges in the Irrigation Project works. But, it may be considered in specific cases as per the site conditions.

13) In respect of RCC works the rate for cement concrete for 1 cum is worked separately for all grades based on Indian Standards. The rate for ton is calculated separately and to be added separately in the estimates of RCC works as a separate item.

14) Soil classification: The Committee recommended to allow uniform classification of soils for all Departments and data is worked out accordingly.

1. all soils
2. Marshy soil
3. ordinary rock (not requiring blasting).
4. hard rock
 - a. hard rock (requiring blasting)
 - b. hard rock (controlled blasting)
 - c. removable by chiseling(blasting prohibited)

15) Use of Super Plasticizers and Admixtures:

Concrete admixtures such as Air-Entraining Agent (AEA) / Water reducing agent can be used advantageously for better quality concrete. The high level committee has recommended to adopt for super plasticizers and admixtures at 0.4% on cement for concrete work as per MORTH standards for batching plants.

16) Contractors overheads, profit and other provisions:

- High Level Committee has recommended adding 14% towards contractor overheads and profit including labour importation and amenities etc., as given below which includes various items recommended in MORTH.
- The provision for GST for works contracts at 12% or as fixed by the Government from time to time should be made separately in Part-B of the estimate. The provisions allowed in G.O.Ms.No.94, I&CAD, dt: 01.07.03, need not be added separately for the items covered in the contractor overhead charges.
- The provision for labour Cess at 1% or as fixed by the Government from time to time should be made separately in Part-B of the estimate.

The overhead charges include the following elements:

- Site accommodation, setting up plant, access road, water supply, electricity and general site arrangements.
- Office furniture, equipment and communications
- Expenditure on:
 - Corporate office of contractor
 - site supervision
 - Documentation and "as built" drawings
 - Mobilisation/ de-mobilisation of resources
 - Labour camps with minimum amenities and transportation to work sites.
 - Light vehicles for site supervision including administrative and managerial requirements.
 - Laboratory equipment and quality control including field and laboratory testing.
 - Minor T & P and survey instruments and setting outworks, including verification of line, dimensions, trial pits and bore holes, where required.
 - Watch and ward
 - Traffic management during construction
 - Expenditure on safeguarding environment
 - Sundries
 - Financing Expenditure

- Work Insurance/ compensation

17) EXCISE DUTY ON SUPPLIES :(deleted)

18) DEWATERING & DESILTING:

The High level committee considering the local conditions of rainfall / seepage has recommended towards de-watering and de-silting at 3 percent on the relevant work component for which dewatering is required. It is also proposed as per CWC guidelines, to keep a condition in the agreements shall be incorporated, to fix a ceiling of 5% in extreme cases, with the specific approval of chief engineer/Government.

19) Computerization Of Data :

- A software program is developed by the SPI Unit(Irrigation), which facilitates automatic changes and generation of unit rates, based on basic input rates of Labour, materials and capital cost of machinery.
- A soft ware tool is also developed for auto preparation of estimates based on input quantities.
- Other Departments are also advised to develop such program.

20) For each chapter separate additional details are incorporated for clarity.

USER GUIDELINES OF REVISED STANDARD DATA

- 1. Please select the item of work, as given in Index Code, and view the relevant data.**
- 2. The common data items like, lead, lift, conveyance and manual excavation (without involving contracting agencies) is applicable to all Departments (Volume-1)**
- 3. The departments have to adopt the relevant data from other Departments, if such works are executed by them.**
- 4. The unit rate /hire charges, of machinery not covered in the Irrigation data, the MORTH data may be taken with the approval of Board of Chief Engineers.**
- 5. For “Drinking water Supply works”(PART-IV), the data incorporated is generally applicable only for manual means of execution. The rates deploying machinery have to be worked out by the Board of Chief engineers and approved for adoption.**

5. ROLE OF CENTRAL COMPETENT AGENCY FOR SCHEDULE OF RATES

(BOARD OF CHIEF ENGINEERS)

- a) The Board of Chief Engineers under the chairman ship of Engineer-in- chief, (administration) I&CAD Department is the competent authority to finalise and recommend the Schedule of Rates applicable for all engineering Departments. The board has to assess and incorporate only the three basic inputs required to generate unit work item rates as below.

Basic rates of labour:

Wages of labour commonly required in execution of works has to be arrived and incorporated in the schedule of rates (**Basic Input Of Labour Wages**), without adding extra towards area allowances (like municipality allowance, tribal area and ghat road allowances etc, which shall be added to the rates where applicable in the form of separate percentage as explained in the preceding paras. The rates shall be the prevailing daily rates in the State and shall not be less than the minimum wages fixed by the Government from time to time.

Materials rates:

The basic input material rates common to all departmental works are listed out and incorporated (in the chapter "Basic inputs") The material specifications adopted shall confirm to Standards published by the BIS.

The Prevailing market rates for all basic input materials shall be obtained from the major commercial centers near the project areas. Average of the rates, ignoring freak rates, shall be reckoned as the prevailing market rate.

Unless otherwise specified, all material rates shall be exclusive of GST, duties, levies, royalty, transportation and handling costs up to project area.

For sand, gravel, murrum, stones, aggregates etc, the rates are for delivery at Quarry including loading charges and idle hire charges. For steel, Cement, AC sheets,

GI sheets, Hume pipes, wood and stone slabs, the rates prevailing at major commercial centre near project area has to be adopted.

Use rate of machinery:

The third parameter for incorporation in the Basic Inputs, is the use rate of machinery. To arrive at the use rate of machinery, the inputs to be incorporated are

- The list and capital cost of machinery required to be used in the construction activity,

The rate has to be obtained from major manufacturers and outlet sources and the rate shall be the current market price inclusive of all duties and freight charges but exclusive GST.

- The prevailing fuel charges of petrol and diesel are ascertained and average rate adopted.
- Borrow rate of interest as fixed by the Government/competent authority be indicated.
- For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH

b) The Chairman, Board of Chief Engineers or competent authority appointed by the Government, based on the approved basic inputs, load the above three basic parameters in the software program. The unit rate of all works including hire charges of all machinery will be generated automatically for adoption.

He shall communicate the uniform Schedule of rates arrived from Standard Data, to all users for uniform and direct adoption in all infrastructure Departments, as applicable

**WORK ITEM RATES
FOR THE YEAR -2018-19**

* Add Leads and Lifts, Area Allowance and VAT as applicable in the estimate

** Area Allowance includes profit component also

*** Unit Rates arrived without Seigniorage Charges

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
Chapter I					
IRR-DAW		DAM AND ALLIED WORKS			
IRR-DAW-1		EXCAVATION & FOUNDATION TREATMENT WORKS:			
IRR-DAW-1-1	1	Excavation for foundation in all kinds of soil including boulders upto 0.30 m diameter for dam, spillway, intake structure and other appurtenant works and placing the excavated soil neatly in dump area or disposing off the same as directed etc., complete with initial lead upto 1 km and all lifts.	cum	124.70	
		Labour Component (including contractor's profit and Overheads)	cum		28.90
IRR-DAW-1-2	2	Excavation for foundation in ordinary rock (including HDR) without blasting including boulders above 0.3 m upto 0.6 m dia for dam, spillway, intake structure and other appurtenant works and placing the excavated material neatly in dump area or disposing off the same as directed etc., complete with initial lead upto 1 km and all lifts.	cum	164.70	
		Labour Component (including contractor's profit and Overheads)	cum		37.40
IRR-DAW-1-3	3	Excavation for foundation in hard rock (including F&F) requiring blasting including boulders above 0.6 m upto 1.2 m dia. for dam, spillway, intake structure and other appurtenant works and placing the excavated material neatly in dump area or disposing off the same as directed etc., complete with initial lead upto 1 km and all lifts.	cum	243.30	
		Labour Component (including contractor's profit and Overheads)	cum		66.20
IRR-DAW-1-3-A New Item 2015-16-1	4	Excavation for foundation in hard rock (including F&F rock) including boulders above 0.6 m upto 1.2 m dia. by controlled blasting and controlling fly rock by muffling arrangements for dam, spillway, intake structure and other appurtenant works and other open foundation works and placing the excavated material neatly in dump area or disposing off the same as directed etc., complete with initial lead upto 1 km and all leads	cum	364.70	
		Labour Component (including contractor's profit and Overheads)	cum		78.50
IRR-DAW-1-4(a)	5	Excavation for foundation in hard rock of all toughness by blasting including boulders above 1.2 m dia. for dam, spillway, intake structure and other appurtenant works and placing the excavated rock neatly in dump area or stack yard including levelling as directed etc., complete with initial lead upto 1 km and all lifts.	cum	431.80	
		Labour Component (including contractor's profit and Overheads)	cum		127.80
IRR-DAW-1-5(b)	6	Excavation for foundation in hard rock of all toughness including boulders above 1.2 m dia. by controlled blasting method and controlling fly-rock by muffling arrangements for dam, spillway, intake structure and other appurtenant structures etc., including placing and levelling the excavated rock neatly in dump area or other place as directed etc., complete with lead upto upto 1 km and all lifts.	cum	669.20	
		Labour Component (including contractor's profit and Overheads)	cum		141.10
IRR-DAW-1-6(c)	7	Excavation for foundation in hard rock of all toughness including boulders above 1.2 m dia. by line drilling and smooth blasting and controlling fly-rock by muffling arrangements for dam, spillway, intake structure and other appurtenant structures etc., including dressing sides and bed to required level / profile, placing and levelling the excavated rock neatly in dump area or other place as directed etc., complete with lead upto 1 km and all lifts. i) For the purpose of payment 1 m width of excavation along boundary of excavation shall be treated as excavation by line drilling and smooth blasting and remaining portion shall be treated as excavation by normal / controlled blasting as the case may be. ii) The rate includes controlling fly-rock wherever required. iii) The rate under this item shall be paid only on ascertaining that the excavated face has come off neatly as per specifications or atleast 50 percent of smooth blast holes are visible for inspection and are spaced at specified interval. iv) In case, where the above criteria is not fulfilled payment shall be restricted to rate provided for excavation by normal blasting or controlled blasting as the case may be.	cum	938.60	
		Labour Component (including contractor's profit and Overheads)	cum		369.90

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-1-7	8	Preparing foundation bed for masonry or concrete by benching, stepping, removing all loose material by wedging / chiselling and disposing off the same as directed and cleaning the surface with air and water jet etc., complete with initial lead upto 50 m and all lifts.	sqm	42.00	
		Labour Component (including contractor's profit and Overheads)	sqm		34.40
IRR-DAW-1-8	9	Preparing foundation bed for cut-off trench filling in rock portion by removing all loose materials by wedging / chiselling and disposing off the same as directed etc., complete with initial lead upto 50 m and all lifts.	sqm	29.10	
		Labour Component (including contractor's profit and Overheads)	sqm		29.10
IRR-DAW-1-9	10	Drilling 45 to 50 mm dia holes vertical or inclined upto 10 degrees to vertical in rock /masonry / concrete by percussion drilling using waggon drill or any other suitable equipment including cost of all materials, machinery, labour, redrilling through partially set grout wherever required etc., complete for drilling upto 6 m depth from surface. The item rate for drilling through rock / masonry / concrete includes redrilling through partially set grout, if any, in the portion of the hole drilled and grouted.	Rm	208.40	
		Beyond 6 m upto 12 m from surface :	Rm	229.20	
		Beyond 12 m upto 18 m from surface :	Rm	252.10	
		Beyond 18 m upto 24 m from surface	Rm	277.30	
		Beyond 24 m upto 30 m from surface	Rm	305.00	
		Beyond 30 m upto 36 m from surface	Rm	335.50	
		Beyond 36 m upto 42 m from surface	Rm	369.10	
		Beyond 42 m upto 48 m from surface	Rm	406.00	
		Labour Component (including contractor's profit and Overheads)	Rm		55.90
IRR-DAW-1-10	11	Flushing grout holes of all sizes with water and air jets alternatively for an average period of 30 minutes including water intake observations after flushing, cost of all materials, machinery, labour etc., complete.	Rm	56.40	
		Labour Component (including contractor's profit and Overheads)	Rm		22.40
IRR-DAW-1-11(a)	12	Consolidation grouting with neat cement grout mix of suitable consistency under specified pressure as directed in drilled holes by stage grouting method including cost of all materials, machinery, labour, redrilling if necessary etc., complete with initial lead upto 1 km and all lifts.	tonne	9046.00	
		Labour Component (including contractor's profit and Overheads)	tonne		3576.10
IRR-DAW-1-12(b)	13	Curtain grouting with neat cement grout mix of suitable consistency under specified pressure as directed in drilled holes by stage grouting method including cost of all materials, machinery, labour, redrilling if necessary etc., complete with initial lead upto 1 km and all lifts.	tonne	10211.20	
		Labour Component (including contractor's profit and Overheads)	tonne		4604.10
IRR-DAW-1-13	14	Providing and fixing 25 mm dia 3 m long cold twisted deformed steel dowel bars with one end driven into 45 to 50 mm diameter 1.50 m deep hole drilled in bed rock and other end provided with L-bend for embedding in concrete / masonry of over flow / non-over flow blocks and other appertenant works including cost of drilling and cleaning hole, filling hole with cement mortar 1 : 1 proportion , driving anchor rod, cost of all materials, machinery, labour etc., complete with initial lead upto 1 km and all lifts.	Each	975.00	
		Labour Component (including contractor's profit and Overheads)	Each		130.90
IRR-DAW-1-14	15	Providing and fixing 25 mm dia. 2.75 m long ribbed steel anchor rods with one end split and driven firmly using steel wedge into 1.25 m deep 45 to 50 mm dia. hole drilled in bed rock and other end provided with L- bend for embedding in concrete / masonry for spillway and appurtenant works including drilling and cleaning hole, filling hole with thick cement slurry, driving anchor rod, cost of all materials, machinery, labour, steel wedge etc., complete with initial lead upto 1 km and all lifts.	Each	902.90	
		Labour Component (including contractor's profit and Overheads)	Each		149.10
IRR-DAW-2		REINFORCEMENT & CEMENT CONCRETE WORKS :			
IRR-DAW-2-1A	16	Providing, fabricating and placing in position reinforcement steel for RCC, below 36 dia rods overlaps and wastages wherever required, tying with 1.25 mm diameter soft annealed steel wire, including cost of all materials, machinery, labour etc., complete with initial lead upto 1 km and all lifts.	tonne	55317.86	
		Labour Component (including contractor's profit and Overheads)	tonne		4471.90

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-2-1B	17	Providing, fabricating and placing in position reinforcement steel for RCC above 36 dia with welding and wastage at 2.5%, tying with 1.25 mm diameter soft annealed steel wire, including cost of all materials, machinery, labour etc., complete with initial lead upto 1 km and all lifts.	tonne	57165.03	
		Labour Component (including contractor's profit and Overheads)	tonne		5863.70
IRR-DAW-2-2	18	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 250 kg /cum with use of super plasticiser equa to 0.4% of cement content, CA : 0.98 cum, Blending Ratio of CA -- 40:30:20:10, FA : 0.35 cum)	cum	3177.90	
		Labour Component (including contractor's profit and Overheads)	cum		208.00
IRR-DAW-2-2A (new Item1 2010-11)	19	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 300 kg /cum with use of super plasticiser equa to 0.4% of cement content, CA : 0.90 cum, Blending Ratio of CA -- 40:30:20:10, FA : 0.4 cum)	cum	3344.70	
		Labour Component (including contractor's profit and Overheads)	cum		208.00
IRR-DAW-2-3	20	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 220 kg /cum with use of super plasticiser, CA: 0.98 cum, Blending Ratio of CA -- 40:30:20:10, FA: 0.37 cum)	cum.	3029.70	
		Labour Component (including contractor's profit and Overheads)	cum.		208.00
IRR-DAW-2-4	21	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for RCC works of gallery, sluice, spillway crest, spillway d / s face, energy dissipating structures, training walls, piers, abutments and such other locations with initial lead upto 1 km and all lifts. (Cement content : 310 kg / cum with use of super plasticiser, CA : 0.90 cum, blending ratio of CA--50:30:20, FA : 0.40 cum)	cum.	4329.70	
		Labour Component (including contractor's profit and Overheads)	cum.		415.90
IRR-DAW-2-4A (new Item2 2010-11)	22	Providing and laying insitu vibrated M-25 (28 days cube compressive strength not less than 25 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for RCC works of gallery, sluice, spillway crest, spillway d / s face, energy dissipating structures, training walls, piers, abutments and such other locations with initial lead upto 1 km and all lifts. (Cement content : 360 kg / cum with use of super plasticiser,CA : 0.90 cum, blending ratio of CA--50:30:20, FA : 0.40 cum)	cum.	4581.90	
		Labour Component (including contractor's profit and Overheads)	cum.		415.90
IRR-DAW-2-4B (new Item3 2010-11)	23	Providing and laying insitu vibrated M-25 (28 days cube compressive strength not less than 25 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for RCC works of gallery, sluice, spillway crest, spillway d / s face, energy dissipating structures, training walls, piers, abutments and such other locations with initial lead upto 1 km and all lifts. (Cement content : 380 kg / cum with use of super plasticiser,CA : 0.90 cum, blending ratio of CA--65:35, FA : 0.40 cum)	cum.	4656.10	
		Labour Component (including contractor's profit and Overheads)	cum.		415.90

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-2-5	24	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 260 kg /cum with use of super plasticiser,CA : 0.90 cum, Blending Ratio of CA -- 50:30:20, FA : 0.40 cum)	cum.	4292.20	
		Labour Component (including contractor's profit and Overheads)	cum.		1517.30
IRR-DAW-2-6	25	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates with placing and sinking plums of size 150 to 80 mm upto 15 percent for gravity type structures including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete with initial lead upto 1 km and all lifts. (Cement content : 260 kg / cum of concrete with use of plums and super plasticiser,, CA : 0.77 cum, Blending Ratio of CA : 50:30:20,FA : 0.34 cum, plums of size 150 to 80 mm : 0.25 cum)	cum.	4178.00	
		Labour Component (including contractor's profit and Overheads)	cum.		1483.00
IRR-DAW-2-7	26	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content 220 kg /cum with use of super plasticiser,CA : 0.90 cum, Blending Ratio of CA : 50:30:20, FA : 0.40 cum)	cum.	3954.10	
		Labour Component (including contractor's profit and Overheads)	cum.		1374.60
IRR-DAW-2-8	27	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 280 kg /cum with use of super plasticiser,CA : 0.80 cum, Blending Ratio of CA -- 65:35, FA : 0.44 cum)	cum.	4122.80	
		Labour Component (including contractor's profit and Overheads)	cum.		1407.50
IRR-DAW-2-9	28	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete for RCC works of spillway bridge, blockouts and such other similar structures with congested reinforcement with initial lead upto 1 km and all lifts. (Cement content : 330 kg / cum with use of super plasticiser, CA : 0.80 cum, Blending Ratio of CA -- 65:35, FA : 0.44 cum).	cum.	5909.20	
		Labour Component (including contractor's profit and Overheads)	cum.		1989.70
IRR-DAW-2-10	29	Providing and forming porous concrete body drain of size 68.5 x 68.5 cm with 23 cm diameter central hole using cement and 20 mm down approved, clean, hard, graded coarse aggregates in 1 : 3.50 proportion by volume including cost of all materials, machinery, labour, formwork, curing etc., complete with initial lead upto 1 km and all lifts.(M15 Cement content : 400kg/cum, CA : 1cum, Blending Ratio of CA -- 65:35)	Rm	2264.00	
		Labour Component (including contractor's profit and Overheads)	Rm		681.70

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-2-11(a)	30	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for RCC solid parapet consisting of 35 cm x 20 cm kerb, 35 cm x 35 cm x 1 m pillars spaced approximately at 3.35 m c / c, 12.5 cm thick wall 80 cm height with 12.5 cm thick and 35 cm wide coping slab for wall and 12.5 cm thick 40 cm x 40 cm coping for pillars with top edges of kerb and coping chamfered / rounded as directed etc., complete (excluding cost of providing and placing reinforcement steel and gate) with initial lead upto 1 km and all lifts. (Cement content 350 kg / cum with use of super plasticiser(0.4% by wt.of cement), CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.44 cum)	Rm	2281.50	
		Labour Component (including contractor's profit and Overheads)	Rm		845.00
IRR-DAW-2-12(b)	31	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for RCC ornamental parapet consisting of 35 cm x 20 cm kerb, 35 cm x 35 cm x 1 m pillars spaced approximately at 3.5 m apart, 20 cm x 15 cm posts 80 cm height approximately 30 cm c / c with 12.5 cm thick and 35 cm wide coping slab for posts and pillars with top edges of kerb and coping chamfered or rounded as directed etc., complete (excluding cost of providing and placing reinforcement steel and gate) with initial lead upto 1 km and all lifts. (Cement content : 350 kg / cum with use of super plasticiser, CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.44 cum)	Rm	2367.30	
		Labour Component (including contractor's profit and Overheads)	Rm		896.20
IRR-DAW-2-13	32	Providing and laying insitu M- 25 (28 days cube compressive strength not less than 25 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for wearing coat including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position in alternate panels, levelling, compacting, finishing, curing, packing joints with asphalt mortar etc., complete with initial lead upto 1 km and all lifts. (Cement content : 380 kg / cum with use of super plasticiser, CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	4751.30	
		Labour Component (including contractor's profit and Overheads)	cum		1705.90
IRR-DAW-2-14	33	Pre-cooling to control placement temperature of cement concrete in the range of 18 to 21 C at the concrete placement point by inundation of coarse aggregates and adding flaked ice as part of mixing water including cost of all materials, machinery, labour etc., complete with all leads and lifts.	cum	90.90	
		Labour Component (including contractor's profit and Overheads)	cum		16.10
IRR-DAW-2-15	34	Conveying and fixing elastomeric bearing for spillway bridge including cleaning and preparing surface, mixing and applying adhesive, fixing bearing in correct position etc., including cost of all materials except bearings, machinery, labour etc., complete with all leads and lifts.	Each	402.40	
		Labour Component (including contractor's profit and Overheads)	Each		358.80
IRR-DAW-2-16	35	Providing and constructing 150 mm dia hume pipe weep holes for concrete / masonry walls including providing 20 x 20 x 20 cm size porous concrete block made of cement and 20 mm down coarse aggregate in 1 : 4 proportion including 10 cm thick sand backing at the junction of wall and soil back fill, cost of all materials, machinery, labour etc., complete with lead upto 1 km and all lifts.	Rm	344.50	
		Labour Component (including contractor's profit and Overheads)	Rm		79.50
IRR-DAW-2-17	36	Providing and forming expansion joint for spillway bridge consisting of 75 x 75 x 6 mm angles 2 numbers provided with 25 cm long 12 mm dia. anchors fixed to both flanges at 15 cm c / c and 140 x 6 mm plate welded on top of one of the angle including cost of all materials, machinery, labour, providing and fixing 38 mm thick joint filler board matching the thickness of wearing coat, painting etc., complete with lead upto 1 km and all lifts.	Rm	1864.90	
		Labour Component (including contractor's profit and Overheads)	Rm		367.80
IRR_DAW-3		MASONRY & GUNITING WORKS :			

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR_DAW-3-1	37	Providing and constructing un-coursed rubble stone masonry using approved stones in cement mortar 1 : 3 proportion including cost of all materials, machinery, labour, scaffolding, cleaning, packing mortar, wedging stone chips, curing etc., complete with initial lead upto 1 km and all lifts. (Cement content : 190 kg/cum of masonry, rubble stones : 0.85 cum,stone chips : 0.15 cum/cum, FA : 0.4 cum)	cum	2627.10	
		Labour Component (including contractor's profit and Overheads)	cum		1277.60
IRR_DAW-3-2	38	Providing and constructing un-coursed rubble stone masonry using approved stones in cement mortar 1 : 4 proportion including cost of all materials, machinery, labour, scaffolding, cleaning, packing mortar, wedging stone chips, curing etc., complete with initial lead upto 1 km and all lifts. (Cement content : 143 kg/cum of masonry, rubble stones : 0.85 cum, stone chips : 0.15 cum/cum, FA : 0.4 cum)	cum	2419.80	
		Labour Component (including contractor's profit and Overheads)	cum		1277.60
IRR_DAW-3-3	39	Providing and constructing coursed rubble face stone masonry using approved rubble stones in cement mortar 1 : 3 proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., with initial lead upto 1 km and all lifts. (Thickness of the CR face assumed: 0.75 m, Cement content : 178 kg/cum of masonry, rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.375 cum, CR stones 30 x 30 x 45 cm : 9.75 No, CR stones 30 x 30 x 60 cm : 3.25 No)	cum	2890.20	
		Labour Component (including contractor's profit and Overheads)	cum		1417.60
IRR_DAW-3-4	40	Providing and constructing coursed rubble face stone masonry using approved rubble stones in cement mortar 1 : 4 proportion including cost of all materials, machinery, labour, scaffolding,ramps, cleaning, packing mortar, wedging stone chips, curing etc., with initial lead upto 1 km and all lifts. (Cement content : 134 kg/cum of masonry, rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.375 cum, CR stones 30 x 30 x 45 cm : 9.75 No, CR stones 30 x 30 x 60 cm : 3.25 No)	cum	2696.20	
		Labour Component (including contractor's profit and Overheads)	cum		1417.60
IRR_DAW-3-5	41	Providing and constructing chisel drafted and hammer dressed face stone masonry with approved stones in cement mortar 1 : 3 proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., complete with initial lead upto 1 km and all lifts. (Cement content : 167 kg/cum of masonry, rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.35 cum, Dressed stones 30 x 30 x 45 cm : 10 No, Dressed stones 30 x 30 x 60 cm : 3.40 No)	cum	3157.80	
		Labour Component (including contractor's profit and Overheads)	cum		1729.30
IRR-DAW-3-6	42	Providing and constructing chisel drafted and hammer dressed face stone masonry with approved stones in cement mortar 1 : 4 proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., complete with initial lead upto 1 km and all lifts. (Cement content : 125 kg/cum of masonry, rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.35 cum, Dressed stones 30 x 30 x 45 cm : 10 No, Dressed stones 30 x 30 x 60 cm : 3.40 No)	cum	2972.60	
		Labour Component (including contractor's profit and Overheads)	cum		1729.30
IRR-DAW-3-7	43	Providing cement mortar pointing to coursed rubble face stone masonry 50 mm deep in CM 1 : 2 proportion by volume including raking and cleaning joints, pressing mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete with initial lead upto 1 km and all lifts.	sqm	121.30	
		Labour Component (including contractor's profit and Overheads)	sqm		99.40
IRR-DAW-3-8	44	Providing cement mortar pointing to coursed rubble face stone masonry 50 mm deep in CM 1 : 3 proportion by volume including raking and cleaning joints, pressing mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete with initial lead upto 1 km and all lifts.	sqm	115.40	
		Labour Component (including contractor's profit and Overheads)	sqm		99.40
IRR_DAW-4		CONTRACTION JOINT WORKS:			
IRR-DAW-4-1	45	Providing 25 mm thick guniting to rock or masonry surface in cement mortar 1 : 3 proportion by weight including cost of all materials, machinery, labour, raking-out and cleaning joints, scaffolding wherever required and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	sqm	483.80	
		Labour Component (including contractor's profit and Overheads)	sqm		199.40

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-4-2	46	Providing and constructing contraction joints by fixing 16 SWG 60 cm wide annealed copper sheets in two lines with 8 mm dia steel dowel rods on either side at one metre interval, forming 125 x 125 mm size groove in between copper strips for filling asphalt including fixing 15 mm dia two legged G.I pipe with U - bend at bottom for circulation of steam at intervals and forming 150 mm dia formed drain behind water seals including cost of all materials, machinery, labour, filling asphalt, circulation of steam through pipes etc., complete with all leads and lifts.	Rm	13643.30	
		Labour Component (including contractor's profit and Overheads)	Rm		206.20
IRR-DAW-4-3	47	Providing and constructing contraction joints by fixing 310 mm wide central bulb type approved quality PVC water stop in two lines with 8 mm diameter steel dowel rods on either side at 1m interval, forming 125 x 125 mm size groove in between two water stops, providing & fixing 15 mm dia two legged G.I pipe with U-bend at bottom for circulation steam at interval, forming 150 mm diameter formed drain behind water seals including filling groove with asphalt, circulation of steam at intervals, cost of all materials, machinery, labour etc., complete with all leads and lifts.	Rm	2148.40	
		Labour Component (including contractor's profit and Overheads)	Rm		138.00
IRR-DAW-4-4	48	Providing and constructing contraction joints by fixing 16 SWG 60 cm wide annealed copper sheets in single line with 8 mm dia steel dowel rods on either side at 1 metre interval including cost of all materials, machinery, labour etc., complete with all leads and lifts.	Rm	6378.10	
		Labour Component (including contractor's profit and Overheads)	Rm		159.30
IRR-DAW-4-5	49	Providing and constructing contraction joints by fixing 23 cm wide central bulb type PVC water stop in single line supported by 10 mm dia steel dowel rods on either side at 1 metre interval including cost of all materials, machinery, labour, valcunising joints etc., complete with all leads and lifts.	Rm	235.70	
		Labour Component (including contractor's profit and Overheads)	Rm		128.30
IRR-DAW-5		EARTH / ROCKFILL EMBANKMENT WORKS :			
IRR-DAW-5-1	50	Providing hearting embankment using selected impervious soil from approved borrow areas in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil in layer of specified thickness, breaking clods, sectioning, watering, compacting to density control of not less than 95 percent or as stipulated using Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	141.00	
		Labour Component (including contractor's profit and Overheads)	cum		24.20
IRR-DAW-5-2	51	Providing cut-off trench filling using selected impervious soil from approved borrow areas in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting to density control of not less than 95 percent using Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller as stipulated etc., complete with initial lead upto 1 km and all lifts.	cum	151.50	
		Labour Component (including contractor's profit and Overheads)	cum		26.40
IRR-DAW-5-3	52	Providing casing embankment using semi-pervious soil from approved borrow areas in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all other operations such as excavation, sorting out, transportation, spreading soil in layers of specified thickness, breaking clods, sectioning, watering, compacting to density control of not less than 95 percent using Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller as stipulated etc., complete with initial lead upto 1 km and all lifts.	cum	151.70	
		Labour Component (including contractor's profit and Overheads)	cum		26.20
IRR-DAW-5-4	53	Providing casing embankment using semi-pervious soil available from excavation in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all other operations such as re-excavation, sorting out, transportation, spreading in layers of specified thickness, breaking clods, sectioning, watering, compacting to specified density control of not less than 95 percent using Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller as stipulated etc., complete with initial lead upto 1 km and all lifts.	cum	128.00	
		Labour Component (including contractor's profit and Overheads)	cum		22.30

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-5-4-A (New Item1 - 2011-12)	54	Providing casing embankment using semi-pervious soil available from excavation in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all other operations such as re-excavation, sorting out, transportation, spreading in layers of specified thickness, breaking clods, sectioning, watering, compacting to specified density control of not less than 90 percent using 2Tonne Roller as stipulated etc., complete with initial lead upto 1 km and all lifts. (For Maintenance Works)	cum	87.10	
		Labour Component (including contractor's profit and Overheads)	cum		22.30
IRR-DAW-5-5	55	Providing homogeneous embankment using soil from approved borrow area in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil in layer of specified thickness, breaking clods, sectioning, watering, compacting to density control of not less than 95 percent or as stipulated using Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	143.40	
		Labour Component (including contractor's profit and Overheads)	cum		24.70
IRR-DAW-5-6	56	Providing embankment adjacent to masonry / concrete structures and filling trial pits using impervious soil from approved borrow areas in layers of 10 to 15 cm and compacting each layer to density control of not less than 95 percent using pneumatic tampers or by vibratory earth rammers including cost of all materials, machinery, labour, picking previous layer, spreading soil in layer, breaking clods, watering etc., complete with initial lead upto 1 km and all lifts.	cum	287.80	
		Labour Component (including contractor's profit and Overheads)	cum		136.50
IRR-DAW-5-7	57	Providing and constructing rockfill embankment with 300 mm down graded stones and quarry spalls from approved source including cost of all materials, machinery, labour, spreading stones and spalls in layers, hand packing, wedging, finishing the surface to required slopes etc., complete with initial lead upto 1 km and all lifts.	cum	453.70	
		Labour Component (including contractor's profit and Overheads)	cum		123.00
IRR-DAW-5-8	58	Providing and constructing dry rubble rock-toe using rubble and stone chips from approved source including cost of all materials, machinery, labour, hand packing rubble and stone chips, finishing top and sides to required slopes etc., complete with initial lead upto 1 km and all lifts.	cum	541.80	
		Labour Component (including contractor's profit and Overheads)	cum		235.80
IRR-DAW-5-9	59	Providing and constructing dry rubble rock-toe with rubble and stone chips from dump yard including cost of all materials, machinery, labour, hand packing rubble and stone chips, finishing top and sides to required slopes etc., complete with initial lead upto 1 km and all lifts. Note: Useful rubble and stone chips will be issued at dump yard at the issue rate for usefull rubble /stone chips. Sorting out and breaking charges included in rate analysis.	cum	472.50	
		Labour Component (including contractor's profit and Overheads)	cum		165.10
IRR-DAW-5-9-A (New Item4-2012-13)	60	Providing and constructing Dry rock Pitching for Groyne using Un-Coursed rubble stone of size 300 mm thick and Un-Coursed rubble stone chips from Quarry to site of work including cost of all materials, Machinery, Labour charge hand packing Un-Course rubble stone & chips to the designed profile with all leads and lifts etc	cum	675.30	
		Labour Component (including contractor's profit and Overheads)	cum		165.10
IRR-DAW-5-10	61	Providing and laying 30 cm diameter open jointed hume pipes with collars in rock-toe for drainage including cost of all materials, machinery, labour etc., complete with lead upto 1 km and all lifts.	Rm	614.40	
		Labour Component (including contractor's profit and Overheads)	Rm		37.30
IRR-DAW-6		FILTER & PITCHING WORKS :			

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-6-1	62	Providing and constructing 1.20 m internal diameter and average 3 m height RCC manhole with 60 cm dia. top cover in M-15 grade cement concrete using 20 mm down graded , clean, hard coarse aggregate, 20 cm thick for bed / sides / top slab / 1.5 m long cut-off wall and 7.5 cm thick for cover including providing 12 mm dia reinforcement bars at 30 cm c / c bothways for bed / sides / cut-off wall / top slab / rungs and 8 mm dia bars at 15 cm c / c bothways for cover, excavation for foundation, providing 30 cm dia hume pipe outlet, cost of all materials, machinery, labour, formwork, scaffolding, batching, mixing, laying, vibrating, finishing, curing etc., complete with lead upto 1 km and all lifts. (Cement content : 300 kg/cum , CA : 0.80 cum, Blending Ratio of CA -- 65:35,FA : 0.44 cum, superplasticizer (0.4% by wt. of cement))	Each	43134.20	
		Labour Component (including contractor's profit and Overheads)	Each		12640.40
IRR-DAW-6-2	63	Providing and constructing longitudinal and cross graded filter drains using sand and 80-20 mm and 20 mm down graded aggregates satisfying specified filter criteria in layers as per specifications including cost of all materials, machinery, labour, laying to required slopes, compaction etc. complete with initial lead upto 50 m and all lifts.	cum	792.70	
		Labour Component (including contractor's profit and Overheads)	cum		178.40
IRR-DAW-6-3	64	Providing and constructing 1.40 m thick vertical or inclined graded filter media consisting of 20 cm thick sand layers, 25 cm thick 20 mm down coarse aggregate layers and 50 cm thick 80-20 mm coarse aggregate layer using approved materials satisfying specified filter criteria as per specifications including cost of all materials, machinery, labour, laying to required slope, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	948.80	
		Labour Component (including contractor's profit and Overheads)	cum		178.40
IRR-DAW-6-4	65	Providing and constructing graded filter media below and behind rock-toe consisting of 20 cm thick sand, 25 cm thick 20 - 4.75 mm and 40 cm thick 80 - 20 mm size graded coarse aggregates satisfying filter criteria as per specifications including cost of all materials, labour, machinery, laying to required slope, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	915.10	
		Labour Component (including contractor's profit and Overheads)	cum		160.20
IRR-DAW-6-4-A (New Item 2011-12)	66	Providing and constructing graded filter media below and behind rock-toe consisting of 30 cm thick, 80 - 20 mm size graded coarse aggregates satisfying filter criteria as per specifications including cost of all materials, labour, machinery, laying to required slope, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	1131.50	
		Labour Component (including contractor's profit and Overheads)	cum		60.20
IRR-DAW-6-5	67	Providing and laying filter media consisting of 2 layers of 250 gsm poly-propylene non-woven filter fabric and 400 mm thick 20 mm down graded coarse aggregate for vertical / inclined and horizontal filter blanket for embankment including cost of all materials, machinery, labour etc., complete with lead upto 50 m for aggregate and all leads for fabric and all lifts.	sqm	859.80	
		Labour Component (including contractor's profit and Overheads)	sqm		69.30
IRR-DAW-6-6	68	Providing and constructing 45 cm thick chimney filter using clean approved sand satisfying filter criteria including cost of all materials, machinery, labour, compacting etc., complete with initial lead upto 50 m and all lifts.	cum	261.30	
		Labour Component (including contractor's profit and Overheads)	cum		142.00
IRR-DAW-6-7	69	Providing and constructing 90 cm thick transition cum filter media behind rockfill using approved sand and 80-20 mm and 20 mm down graded aggregates satisfying the filter criteria in layers of 30 cm thickness each as per specifications including cost of all materials, machinery, labour, laying each layer to required slope, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	911.60	
		Labour Component (including contractor's profit and Overheads)	cum		187.50
IRR-DAW-6-8	70	Providing and constructing 60 cm thick hand packed rough stone revetment with 65 to 75 cm long through stones at 1.50 m c / c over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size approved graded aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with chips, finishing etc. complete with initial lead upto 50 m and all lifts.	sqm	829.80	
		Labour Component (including contractor's profit and Overheads)	sqm		205.60

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-DAW-6-9	71	Providing and constructing 60 cm thick hand packed rough stone revetment with 65 to 75 cm long through stones at 1.50 m c / c over a backing of 60 cm thick graded filter media consisting of sand, 10 mm and 40 mm size approved graded aggregates laid in layers of 20 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with chips, finishing etc. complete with initial lead upto 50 m and all lifts.	sqm	978.40	
		Labour Component (including contractor's profit and Overheads)	sqm		232.90
IRR-DAW-6-10	72	Providing and constructing 60 cm thick hand packed rough stone riprap over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size graded approved aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with stone chips etc., complete with initial lead upto 50 m and all lifts.	sqm	762.40	
		Labour Component (including contractor's profit and Overheads)	sqm		157.90
IRR-DAW-6-11	73	Providing and constructing 75 cm thick hand packed rough stone riprap over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size graded approved aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with stone chips, etc., complete with initial lead upto 50 m and all lifts.	sqm	835.60	
		Labour Component (including contractor's profit and Overheads)	sqm		172.00
IRR-DAW-6-12	74	Providing and constructing 90 cm thick hand packed rough stone riprap over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size graded approved aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with stone chips etc., complete with initial lead upto 50 m and all lifts.	sqm	924.90	
		Labour Component (including contractor's profit and Overheads)	sqm		200.20
IRR-DAW-6-13	75	Providing and laying Hariyala or other approved quality turfing sods for the slopes of earthen embankments over 20 mm thick sand backing including cost of all materials, machinery, labour including preparing surface, spreading sand, watering for 15 days etc., complete with initial lead upto 1 km and all lifts.	sqm	109.70	
		Labour Component (including contractor's profit and Overheads)	sqm		79.50
Chapter II					
IRR-TAW		TUNNEL AND ALLIED WORKS			
IRR-TAW-1		EXCAVATION :			
IRR-TAW-1-1	76	Excavation for adit by tunnelling methods in all types of rock including cost of all materials, machinery, labour, scaling excavated surface, ventilation, lighting, drainage, removing and hauling the excavated muck outside adit upto specified dump area and all other ancillary operations etc., complete with initial lead upto 50 m and all lifts.	cum	1792.70	
		Labour Component (including contractor's profit and Overheads)	cum		708.60
IRR-TAW-1-2	77	Excavation for vertical / inclined shaft in all types of soft / hard rock including cost of all materials, machinery, labour, shoring, strutting, scaling excavated surface, ventilation, lighting, drainage, removing and hauling excavated muck outside shaft upto specified dump area and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	cum	2539.00	
		Labour Component (including contractor's profit and Overheads)	cum		1431.90
IRR-TAW-1-3	78	Excavation for tunnel by tunnelling methods in rock not requiring supports including cost of all materials, machinery, labour, scaling excavated surface, removing under-cuts, ventilation, lighting, drainage, removing and hauling the excavated muck outside tunnel upto specified dump area and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	cum	1835.70	
		Labour Component (including contractor's profit and Overheads)	cum		698.80
IRR-TAW-1-4	79	Excavation for tunnel by tunnelling methods including excavation for supports in all types of soil / rock strata requiring supports (excluding cost of providing supports) including cost of all other materials, machinery, labour, scaling excavated surface, ventilation, lighting, drainage, removing and hauling the excavated muck outside tunnel upto specified dump area and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	cum	1889.80	
		Labour Component (including contractor's profit and Overheads)	cum		721.80

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-TAW-1-5	80	Excavation for tunnel by heading and benching tunnelling methods including excavation for supports in all types of soil / rock strata requiring supports (excluding cost of providing supports) for roof before benching including cost of all other materials, machinery, labour, scaling excavated surface, ventilation, lighting, drainage removing and hauling excavated muck outside tunnel upto specified dump area and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts. NOTE: Where mucking is to be carried out through shaft using winch and mucking tub system increase the basic rates for items 3, 4 & 5 by 8 percent.	cum	1947.00	
		Labour Component (including contractor's profit and Overheads)	cum		773.70
IRR-TAW-1-6	81	Removing and hauling muck overfallen due to natural causes such as geological faults etc., out of tunnel including breaking large fragments by blasting if necessary and disposing off the same in specified dump area or as directed including cost of all materials, machinery, labour, ventilation, drainage, lighting and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	cum	373.90	
		Labour Component (including contractor's profit and Overheads)	cum		108.60
IRR-TAW-2		DEWATERING & GUNITING WORKS :			
IRR-TAW-2-1	82	Dewatering tunnel by pumping out water collected by natural drainage inside tunnel including providing sump wherever necessary, cost of all materials, machinery, labour, drainage, lighting, ventilation and all other ancillary operations etc., complete.	Kwhr	27.10	
		Labour Component (including contractor's profit and Overheads)	Kwhr		10.10
IRR-TAW-2-2	83	Providing 25 mm thick guniting to sides and arch of tunnel in cement mortar 1 : 3 proportion by weight including cost of all materials, machinery, labour, ventilation, lighting, drainage and all other ancillary operations etc., complete with lead upto 1 km and all lifts.	sqm	593.20	
		Labour Component (including contractor's profit and Overheads)	sqm		224.80
IRR-TAW-2-3 (new Item 4 2010-11)	84	Shotcreting in two layers (each layer+38 mm thickness) for slabs duly fixing chain weld wire mesh 100 x 100x5 mm in between the two layers including cost and conveyance of all materials, labour charges, all heads, lifts, centering, scaffolding, machine mixing, laying concrete with shotcrete machine etc. complete as per specification and as directed by Engineer-in-Charge	sqm	1389.10	
		Labour Component (including contractor's profit and Overheads)	sqm		224.80
IRR-TAW-3		TEMPORARY & PERMANENT SUPPORTS :			
IRR-TAW-3-1	85	Providing and fixing 25 mm diameter steel rock bolts with mechanical / wedge type anchorage including drilling 35 mm dia holes, providing 15 cm long 20 mm thick steel tapered wedge, 10 mm thick plate washers and nuts, tightening bolt by torque wrench, cost of all materials, machinery, labour, ventilation, lighting, drainage and all other ancillary operations etc., complete with lead upto 1 km and all lifts.	Rm	1130.50	
		Labour Component (including contractor's profit and Overheads)	Rm		375.60
IRR-TAW-3-2	86	Providing and fixing 25 mm diameter steel rock bolts with resin bond cement capsule anchorage including drilling 35 mm dia holes, inserting grout capsule, driving bolt, fixing 10 mm thick plate washers and nuts and tightening the same by torque wrench after hardening of cement grout, cost of all materials, machinery, labour, ventilation, lighting, drainage and other ancillary operations etc., complete with lead upto 1 km and all lifts.	Rm	1080.30	
		Labour Component (including contractor's profit and Overheads)	Rm		346.60
IRR-TAW-3-3	87	Providing, fabricating and fixing in position permanent structural steel supports as per details including cost of all materials, machinery, labour, cutting, bending, welding, grinding, lighting, ventilation, drainage and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	tonne	92274.90	
		Labour Component (including contractor's profit and Overheads)	tonne		20321.90
IRR-TAW-3-4	88	Providing, fabricating and fixing in position temporary structural steel supports as per details and dismantling the same before concreting including cost of all materials, machinery, labour, cutting, bending, welding, grinding, ventilation, lighting, drainage and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.	tonne	22976.90	
		Labour Component (including contractor's profit and Overheads)	tonne		10187.30

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-TAW-3-5	89	Providing and fixing hard variety cut jungle wood for lagging / blocking locations in tunnel wherever required including cost of all materials, machinery, labour, fixing in position, lighting, ventilation, drainage etc complete with all leads and lifts.	cum	26334.40	
		Labour Component (including contractor's profit and Overheads)	cum		1848.30
IRR-TAW-4		MASONRY WORKS :			
IRR-TAW-4-1	90	Providing and constructing un-coursed rubble stone masonry with approved stones from tunnel excavated muck in cement mortar 1 : 6 proportion for backfilling over cuts / slips on tunnel sides due to geological faults etc., including cost of all materials, machinery, labour, cleaning,scaffolding, packing mortar, wedging stone chips, curing, ventilation, lighting, drainage complete with lead upto 1 km and all lifts.(cement content : 95 kg/cum of masonry, Rubble stones : 0.83 cum, Stone chips : 0.13 cum,FA : 0.40 cum)	cum	2072.70	
		Labour Component (including contractor's profit and Overheads)	cum		986.10
IRR-TAW-5		REINFORCEMENT & CONCRETE WORKS :			
IRR-TAW-5-1	91	Providing, fabricating and placing in position reinforcement steel for tunnel RCC works including cleaning, straightening, cutting, bending, hooking, lapping / welding joints wherever required, tying with 1.25 mm dia.soft annealed steel wire, including cost of all materials, labour, machinery, ventilation, lighting, drainage etc.,complete with initial lead upto 1 km and all lifts.	tonne	70393.50	
		Labour Component (including contractor's profit and Overheads)	tonne		12952.10
IRR-TAW-5-2	92	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates crushed from tunnel excavated muck for filling and levelling over-cuts in bed due to geological faults etc., including cost of all materials, machinery, labour, cleaning bed, batching, mixing, conveying and laying, levelling, compacting, finishing, curing, lighting, ventilation, drainage etc., complete with initial lead upto 1 km and all lifts. (Cement content : 220 kg / cum, CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum, Superplasticizer 0.4% by wt. of cement)	cum	5036.40	
		Labour Component (including contractor's profit and Overheads)	cum		966.10
IRR-TAW-5-3	93	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sqmm) grade cement concrete using 40 mm and down size approved clean, hard, graded aggregates crushed from tunnel muck for kerb and bed lining including cost of all materials, machinery, labour, formwork, batching, mixing, conveying upto placing point in agitator cars, placing in position, levelling, vibrating, finishing, curing, ventilation, lighting, drainage and all other ancillary operations etc., complete with lead upto 1 km and all lifts. (Cement content 330 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	cum	6067.50	
		Labour Component (including contractor's profit and Overheads)	cum		1202.40
IRR-TAW-5-4	94	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sqmm) grade cement concrete using 40 mm and down size approved clean, hard, graded aggregates crushed from tunnel muck for sides and arch lining including cost of all materials, machinery, labour, formwork, batching, mixing, conveying upto placing point in agitator cars, placing in position, levelling, vibrating, finishing, curing, ventilation, lighting, drainage and all other ancillary operations etc., complete with lead upto 1 km and all lifts. (Cement content 330 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	cum	6821.10	
		Labour Component (including contractor's profit and Overheads)	cum		982.90
IRR-TAW-6		DRILLING & GROUTING WORKS :			
IRR-TAW-6-1	95	Drilling 32 mm diameter grout holes in concrete / rock by percussion drilling using jack hammer or stooper drills as directed to specified depth for consolidation / contact grouting including cost of all materials, machinery, labour, cleaning holes, ventilation, lighting, drainage and all other ancillary operations etc., complete.	Rm	423.50	
		Labour Component (including contractor's profit and Overheads)	Rm		180.30

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-TAW-6-2	96	Grouting cement slurry in grout holes under specified pressure for consolidation / contact grouting including cost of all materials, machinery, labour, redrilling wherever necessary, ventilation, lighting, drainage and other ancillary operations etc., complete with lead upto 1 km and all lifts.	tonne	9296.40	
		Labour Component (including contractor's profit and Overheads)	tonne		2796.30
IRR-TAW-6-3	97	Drilling 75 mm diameter drainage holes vertical or inclined in rock / concrete in tunnel by percussion drilling using waggon drill or other suitable drilling equipment including cost of all materials, machinery, labour, ventilation, lighting, drainage etc., complete.	Rm	376.80	
		Labour Component (including contractor's profit and Overheads)	Rm		74.20
Chapter III					
IRR-CAW		CANAL AND ALLIED WORKS			
IRR-CAW-1		EXCAVATION WORKS :			
IRR-CAW-1-1	98	Excavation in all kinds of soil including boulders upto 0.3 m diameter for canal, seating of embankment, filter drains / catch water drains etc., including dressing bed and sides to required level and profile, cost of all materials, machinery, labour, placing the excavated soil neatly in dump area or for the formation of service road / embankment as directed etc., complete with initial lead upto 1 km and all lifts.	cum	98.80	
		Labour Component (including contractor's profit and Overheads)	cum		29.30
IRR-CAW-1-2	99	Excavation in all kinds of soil including boulders upto 0.30 m dia for field channels, seating of embankment for field channels etc., including dressing of bed and sides to required profile, cost of all materials, machinery, labour, placing the excavated stuff for formation of service road / embankment as directed etc., complete with lead upto 10 m and lift upto 3 m. (Machinery excavation and manual conveyance)	cum	53.90	
		Labour Component (including contractor's profit and Overheads)	cum		24.20
IRR-CAW-1-3	100	Excavation in ordinary rock (including HDR) without blasting including boulders above 0.30 m upto 0.6 m dia. for canals, seating of embankment, filter drain / catch water drains etc., including dressing of bed and sides to required level and profile, cost of all materials, machinery, labour, placing the excavated soft rock neatly in dump area or for formation of service road as directed etc., complete with lead upto 1 km and all lifts.	cum	134.30	
		Labour Component (including contractor's profit and Overheads)	cum		43.20
IRR-CAW-1-4	101	Excavation in ordinary rock (including HDR) without blasting including boulders above 0.3 m upto 0.60 m dia. for field channels, seating of embankment for field channels etc., including dressing of bed and sides to required profile, cost of all materials, machinery, labour, placing the excavated stuff for formation of service road as directed etc., complete with lead upto 10 m and lift upto 3 m. (Machinery excavation and manual conveyance)	cum	88.70	
		Labour Component (including contractor's profit and Overheads)	cum		39.30
IRR-CAW-1-5	102	Excavation in hard rock (including F&F rock) requiring blasting including boulders above 0.6 m upto 1.2 m dia. for canals, seating of embankment, filter drain / catch water drains etc., including dressing bed and sides to required level and profile, cost of all materials, machinery, labour, placing the excavated rock in dump area or for formation of service road as directed etc., complete with lead upto 1 km and all lifts.	cum	204.10	
		Labour Component (including contractor's profit and Overheads)	cum		77.70
IRR-CAW-1-6 (a)	103	Excavation in hard rock of all toughness by blasting including boulders above 1.2 m dia. for canals, seating of embankment, filter drain / catch water drains etc., including levelling the bed by removing all projections by hammering / chiselling, cost of all materials, machinery, labour, placing the excavated rock neatly in approved dump area and levelling the same as directed etc., complete with initial lead upto 1 km and all lifts. i) The rate under this item shall be adopted for canals designed for carrying capacity of less than 15 cumecs or where the average depth excavation in hard rock is less than 3 m. ii) The rate includes levelling canal bed by hammering / chiselling all rock projections wherever required.	cum	513.00	
		Labour Component (including contractor's profit and Overheads)	cum		165.40

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-1-7 (b)	104	<p>Excavation in hard rock of all toughness including boulders above 1.2 m dia. by approved controlled blasting methods for canals, cut-off trench of embankment, filter / catch-water drains etc., including controlling fly-rock by muffling arrangements such as placing 50 x 50 mm opening chain link mesh or waste tyres and sand bags, monitoring ground vibrations at specified locations, cost of all materials, machinery, labour, placing excavated rock neatly in approved dump area or other place as directed etc., complete with lead upto 1 km and all lifts.</p> <p>i) The rate under this item shall be adopted for canals designed for carrying capacity of less than 15 cumecs or where the average depth excavation in hard rock is less than 3 m.</p> <p>ii) The rate under this item shall be adopted where the control of fly-rock and ground vibrations is required.</p>	cum	618.30	
		Labour Component (including contractor's profit and Overheads)	cum		163.80
IRR-CAW-1-8 (c)	105	<p>Excavation in hard rock of all toughness including boulders above 1.2 m dia. for dressing canal sides neatly on either side to required profile by line drilling and smooth blasting including removing under-cuts by chiselling / hammering, placing the excavated rock neatly in dump area or other place as directed, cost of all materials, machinery, labour etc., complete with lead upto 1 km and all lifts.</p> <p>i) For excavation of canal below free board level combination of normal controlled blasting and line drilling and smooth blasting shall be adopted to obtain neat side slopes. For the purpose of payment 1 m width of excavation on either side shall be treated as excavation by line drilling and smooth blasting and remaining portion shall be treated as excavation by normal / controlled blasting as the case may be.</p> <p>ii) The rate under this item shall be adopted for canals designed for carrying capacity of less than 15 cumecs or where the average depth of excavation in hard rock is less than 3 m.</p> <p>iii) The rate includes controlling fly-rock wherever required.</p> <p>iv) The rate under this item shall be paid only on ascertaining that the excavated face has come off neatly as per specifications or atleast 50 percent of smooth blast holes are visible for inspection and are spaced at specified interval.</p> <p>v) In case, where the above criteria is not fulfilled payment shall be restricted to the rate provided for excavation by normal blasting or controlled blasting as the case may be.</p>	cum	1168.70	
		Labour Component (including contractor's profit and Overheads)	cum		436.20
IRR-CAW-1-9(a)	106	<p>Excavation in hard rock by blasting including boulders above 1.2 m dia. for canals, seating embankment etc., including levelling bed by removing all projections by hammering / chiselling, cost of all materials, machinery, labour, placing the excavated rock neatly in approved dump area and levelling the same as directed etc., complete with initial lead upto 1 km and all lifts.</p> <p>i) The rate under this item shall be adopted for canals designed for carrying capacity of more than 15 cumecs or where the average depth of excavation in hard rock is more than 3 m.</p> <p>ii) The rate includes levelling canal bed by hammering /chiselling all rock projections wherever required.</p>	cum	304.20	
		Labour Component (including contractor's profit and Overheads)	cum		51.80
IRR-CAW-1-10(b)	107	<p>Excavation in hard rock of all toughness including boulders above 1.2 m dia. by approved controlled blasting methods for canals, cut-off trench of embankment etc., including controlling fly-rock by muffling arrangements such as placing 50 x 50 mm opening chain link mesh or waste tyres and sand bags, monitoring ground vibrations at specified locations, cost of all materials, machinery, labour, placing excavated rock neatly in approved dump area or other place as directed etc., complete with lead upto 1 km and all lifts.</p> <p>i) The rate under this item shall be adopted for canals designed for carrying capacity of more than 15 cumecs or where the average depth of excavation in hard rock is more than 3 m.</p> <p>ii) The rate under this item shall be adopted where the control of fly-rock and ground vibrations is required.</p>	cum	442.40	
		Labour Component (including contractor's profit and Overheads)	cum		59.40

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-1-11(c)	108	Excavation in hard rock of all toughness including boulders above 1.2 m dia. for dressing canal sides neatly on either side to required profile by line drilling and smooth blasting including removing under-cuts by chiselling / hammering, placing the excavated rock neatly in dump area or other place as directed, cost of all materials, machinery, labour etc., complete with lead upto 1 km and all lifts. i) For excavation of canal below free board level combination of normal controlled blasting and line drilling and smooth blasting shall be adopted to obtain neat side slopes. For the purpose of payment 1 m width of excavation on either side shall be treated as excavation by line drilling and smooth blasting and remaining portion shall be treated as excavation by normal / controlled blasting as the case may be. ii) The rate under this item shall be adopted for canals designed for carrying capacity of more than 15 cumecs or where the average depth of excavation in hard rock is more than 3 m. iii) The rate includes controlling fly-rock wherever required. iv) The rate under this item shall be paid only on ascertaining that the excavated face has come off neatly as per specifications or atleast 50 percent of smooth	cum	765.30	
		Labour Component (including contractor's profit and Overheads)	cum		133.80
IRR-CAW-2		EMBANKMENT WORKS USING BORROW AREA SOIL :			
IRR-CAW-2-1	109	Providing impervious hearting embankment with selected soil from approved borrow areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	201.80	
		Labour Component (including contractor's profit and Overheads)	cum		39.10
IRR-CAW-2-2	110	Providing impervious hearting embankment with selected soil from approved borrow areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	194.80	
		Labour Component (including contractor's profit and Overheads)	cum		38.40
IRR-CAW-2-3	111	Providing semi-pervious / pervious casing embankment using soil from approved borrow area in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sortingout, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	201.50	
		Labour Component (including contractor's profit and Overheads)	cum		39.10
IRR-CAW-2-4	112	Providing semi-pervious / pervious casing embankment using soil from approved borrow area in layers of 25cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sortingout, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	197.60	
		Labour Component (including contractor's profit and Overheads)	cum		41.20
IRR-CAW-2-5	113	Providing semi-pervious / pervious casing embankment using soil from approved borrow area in layers of 25cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sortingout, transporting, spreading in layer of specified thickness, breaking clods, sectioning, compacting each layer without watering to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	182.80	
		Labour Component (including contractor's profit and Overheads)	cum		35.60

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-2-6	114	Providing hearting / casing embankment with homogeneous soil from approved borrow areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	174.00	
		Labour Component (including contractor's profit and Overheads)	cum		32.20
IRR-CAW-2-7	115	Providing hearting / casing embankment with homogeneous soil from approved borrow areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	167.90	
		Labour Component (including contractor's profit and Overheads)	cum		31.60
IRR-CAW-2-8	116	Providing casing embankment using homogeneous soil from approved borrow area in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, compacting each layer without watering to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	157.00	
		Labour Component (including contractor's profit and Overheads)	cum		29.00
IRR-CAW-3		EMBANKMENT WORKS USING DUMP AREA SOIL :			
IRR-CAW-3-1	117	Providing impervious hearting embankment with soil from approved dump areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to achieve density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	153.50	
		Labour Component (including contractor's profit and Overheads)	cum		29.90
IRR-CAW-3-2	118	Providing impervious hearting embankment with soil from approved dump areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to achieve density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	148.10	
		Labour Component (including contractor's profit and Overheads)	cum		29.40
IRR-CAW-3-3	119	Providing semi-pervious / pervious casing embankment using soil from approved dump area in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	149.10	
		Labour Component (including contractor's profit and Overheads)	cum		29.00
IRR-CAW-3-4	120	Providing semi-pervious / pervious casing embankment using soil from approved dump area in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering , compacting each layer to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	143.50	
		Labour Component (including contractor's profit and Overheads)	cum		28.40

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-3-5	121	Providing semi-pervious / pervious casing embankment using soil from approved dump area in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, compacting each layer without watering to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.	cum	133.90	
		Labour Component (including contractor's profit and Overheads)	cum		26.10
IRR-CAW-4		EMBANKMENT WORKS USING EXCAVATED SOIL :			
IRR-CAW-4-1	122	Providing impervious hearting embankment with soil collected in embankment area in heaps as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting out, spreading in layer of 25 cm before compaction, breaking clods, sectioning, watering and compacting each layer to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with lead upto 1 km for water.	cum	68.90	
		Labour Component (including contractor's profit and Overheads)	cum		12.30
IRR-CAW-4-2	123	Providing impervious hearting embankment with soil collected in embankment area in heaps as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting out, spreading in layer of 25 cm before compaction, breaking clods, sectioning, watering and compacting each layer to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with lead upto 1 km for water.	cum	63.60	
		Labour Component (including contractor's profit and Overheads)	cum		12.50
IRR-CAW-4-3	124	Providing semi-pervious / pervious casing hearting embankment using soil collected in heaps in embankment area as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting-out, spreading in layers of 25 cm before compaction, breaking clods, sectioning, watering and compacting each layer to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with lead upto 1 km for water.	cum	68.90	
		Labour Component (including contractor's profit and Overheads)	cum		12.30
IRR-CAW-4-4	125	Providing semi-pervious / pervious casing embankment using soil collected in heaps in embankment area as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting-out, spreading in layers of 25 cm before compaction, breaking clods, sectioning, watering and compacting each layer to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with lead upto 1 km for water.	cum	63.60	
		Labour Component (including contractor's profit and Overheads)	cum		12.50
IRR-CAW-4-5	126	Providing semi-pervious / pervious casing embankment using soil collected in heaps in embankment area as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting-out, spreading in layers of 25 cm before compaction, breaking clods, sectioning and compacting each layer without watering to density control of not less than 95 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete.	cum	52.20	
		Labour Component (including contractor's profit and Overheads)	cum		9.10
IRR-CAW-4-6	127	Providing compacted embankment for field irrigation channels with gravely soil from approved borrow area including sorting out, spreading in layers of 15 cm thickness, breaking clods, watering, compacting, dressing sides to required slopes etc., complete with lead upto 50 m and all lifts. (manual work with water pump)	cum	352.90	
		Labour Component (including contractor's profit and Overheads)	cum		347.80
IRR-CAW-5		FOUNDATION FILLING WORKS :			
IRR-CAW-5-1	128	Providing rubble and sand filling in layers of 22.5 to 30 cm including cost of all materials, machinery, labour, watering, ramming etc., complete with initial lead upto 50 m and all lifts.	cum	571.50	
		Labour Component (including contractor's profit and Overheads)	cum		181.80

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-5-2	129	Providing rubble and Murum filling in layers of 22.5 to 30 cm including cost of all materials, machinery, labour, watering, ramming etc., complete with initial lead upto 50 m and all lifts.	cum	610.10	
		Labour Component (including contractor's profit and Overheads)	cum		181.80
IRR-CAW-5-3	130	Providing and laying 25 cm thick sand blanket below embankment including cost of all materials, machinery, labour, spreading to specified thickness etc., complete with initial lead upto 50 m and all lifts.	sqm	51.10	
		Labour Component (including contractor's profit and Overheads)	sqm		22.70
IRR-CAW-5-3-A (New Item 3 - 2011-12)	131	Providing and laying sand blanket below embankment including cost of all materials, machinery, labour, spreading to specified thickness etc., complete with initial lead upto 50 m and all lifts.	cum	204.50	
		Labour Component (including contractor's profit and Overheads)	cum		90.90
IRR-CAW-5-4	132	Providing and constructing dry rubble rock-toe using rubble and stone chips from approved source including cost of all materials, machinery, labour, hand packing rubble and stone chips, finishing top and sides to required slopes etc., complete with initial lead upto 50 m and all lifts.	cum	528.70	
		Labour Component (including contractor's profit and Overheads)	cum		127.00
IRR-CAW-5-5	133	Providing and constructing longitudinal and cross graded filter drains using sand and 20 mm down graded aggregates satisfying specified filter criteria in layers as per specifications including cost of all materials, machinery, labour, laying to required slopes, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	546.90	
		Labour Component (including contractor's profit and Overheads)	cum		169.30
IRR-CAW-5-6	134	Laying Longitudinal Drains and Transverse drains of Size 600 x600 x750 mm in Bed and filling with 12 mm to 40 mm HG machine Crushed metal and sand in bed including excavation of drains and Cost of procuring of all materials	Rm	265.70	
		133	Rm		32.20
IRR-CAW-5-7	135	Laying and fixing of 100 mm Dia 300 mm long precast porous CC plugs in bed and sides using 1.181 Kgs of cement per each using 20 mm HG metal and placing in local filters of size 600x600x750 mm in size including excavation of drains and Cost of procuring of all materials	one plug	327.00	
		Labour Component (including contractor's profit and Overheads)	one plug		126.11
IRR-CAW-5-8	136	Providing and constructing 0.50 m thick vertical or inclined graded filter media consisting of 15 cm thick sand layers and 20 cm thick 20 mm down coarse aggregate layer using approved materials satisfying specified filter criteria as per specifications including cost of all materials, machinery, labour, laying to required slope, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	738.00	
		Labour Component (including contractor's profit and Overheads)	cum		169.30
IRR-CAW-5-9	137	Providing and constructing graded filter media below and behind rock-toe consisting of 20 cm thick sand, 15 cm thick 20 mm down and 15 cm thick 40 mm down size graded coarse aggregates satisfying filter criteria behind rock-toe and 15 cm thick sand, 20 cm thick 20 mm down coarse aggregate and 65 cm thick 40 mm down size coarse aggregate satisfying filter criteria below rock-toe as per specifications including cost of all materials, machinery, labour, laying to required slope, compaction etc., complete with initial lead upto 50 m and all lifts.	cum	1045.00	
		Labour Component (including contractor's profit and Overheads)	cum		158.20
IRR-CAW-5-10(a)	138	Providing and laying filter media consisting of 2 layers of poly-propeline nonwoven filter fabric and 200 mm thick 20 mm down graded coarse aggregate for embankment including cost of all materials, machinery, labour, forming toe drain etc., complete with lead upto 50 m for aggregate and all leads for fabric and all lifts.	sqm	528.80	
		Using 200 gsm filter fabric.			
		Labour Component (including contractor's profit and Overheads)	sqm		37.50
IRR-CAW-5-11(b)	139	Providing and laying filter media consisting of 2 layers of poly-propeline nonwoven filter fabric and 200 mm thick 20 mm down graded coarse aggregate for embankment including cost of all materials, machinery, labour, forming toe drain etc., complete with lead upto 50 m for aggregate and all leads for fabric and all lifts.	sqm	564.60	
		Using 250 gsm filter fabric.			
		Labour Component (including contractor's profit and Overheads)	sqm		37.50

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-6		ROCK FILL WORKS :			
IRR-CAW-6-1	140	Providing and constructing rockfill casing to canal embankment with graded stones and spalls from approved quarry including cost of all materials, machinery, labour, spreading stones and spalls in layers, hand packing, wedging, finishing surface to required slopes etc., complete with initial lead upto 50 m and all lifts.	cum	467.40	
		Labour Component (including contractor's profit and Overheads)	cum		66.40
IRR-CAW-6-2	141	Providing and constructing rockfill casing to canal embankment with graded stones and spalls available in dump yard including cost of all materials, machinery, labour, spreading stones and spalls in layers, hand packing, wedging, finishing surface to required slopes etc., complete with initial lead upto 50 m and all lifts. Stones and spalls available in dump yard will be issued at specified issue rate.	cum	283.60	
		Labour Component (including contractor's profit and Overheads)	cum		85.40
IRR-CAW-7		CANAL LINING WORKS :			
IRR-CAW-7-1	142	Providing cohesive non-swelling (CNS) soil lining to canals using soil from approved borrow area including spreading soil in layers of thickness not more than 15 cm , breaking clods, watering, compacting to density control of not less than 98 percent or as stipulated, dressing to required profile etc., complete with initial lead upto 1 km and all lifts.	cum	231.10	
		Labour Component (including contractor's profit and Overheads)	cum		79.50
IRR-CAW-7-2	143	Providing cohesive non-swelling (CNS) soil lining to canals using soil from approved borrow area including spreading soil in layers of thickness not more than 15 cm , breaking clods, watering, compacting to density control of not less than 95 percent or as stipulated, dressing to required profile etc., complete with initial lead upto 1 km and all lifts.	cum	225.30	
		Labour Component (including contractor's profit and Overheads)	cum		78.60
IRR-CAW-7-3	144	Providing cohesive non-swelling (CNS) soil lining to canal using soil collected in heaps along the edge of canal requiring CNS soil lining as part of the disposal of excavated soil from canal excavation in CNS soil reach including spreading in layers of thickness not more than 15 cm , breaking clods, watering, compacting to density control of not less than 95 percent or as stipulated, dressing to required profile etc., complete with lead upto upto 50 m and all lifts.	cum	124.70	
		Labour Component (including contractor's profit and Overheads)	cum		61.10
IRR-CAW-7-4	145	Providing and fixing 20 x 20 x 75 cm size top surface neatly dressed canal bed level stones including cost of all materials, labour, excavation, fixing in position to correct level etc., complete with lead upto 50 m and all lifts.	Each	105.90	
		Labour Component (including contractor's profit and Overheads)	Each		81.00
IRR-CAW-7-5	146	Providing, fabricating and placing in position reinforcement steel bars for RCC works including cleaning, straightening, cutting, bending, hooking, lapping, tying with 1.25 mm dia.soft annealed steel wire, welding wherever required including cost of all materials, machinery, labour etc., complete with initial lead upto 50 and all lifts.(1.05 tonne/tonne of steel)	kg	60.00	
		Labour Component (including contractor's profit and Overheads)	kg		9.10
IRR-CAW-7-6	147	Providing and laying 75 mm thick in-situ M-15 (28 days cube compressive strength not less than 15 N / sqmm) grade cement concrete with 20 mm down size approved, clean, hard, graded aggregates for canal lining using vibrating cylinder type mechanical paver including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position,finishing, forming contraction joints, fixing PVC joint sealing strips, curing, shifting of paver from one side to other side of canal etc., complete with initial lead upto 1 km and all lifts. (43 Gr Cement content: (300kg /cum) 22.5 kg / sqm for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum, equivalent concrete volume:79.2 cum including the extra quantity of concrete for curvatures and bends etc.)	sqm	368.30	
		Labour Component (including contractor's profit and Overheads)	sqm		35.40

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-7-7	148	Providing and laying 80 mm thick in-situ M-15 (28 days cube compressive strength not less than 15 N / sqmm) grade cement concrete with 20 mm down size approved, clean, hard, graded aggregates for canal lining using vibrating cylinder type mechanical paver including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, finishing, forming contraction joints, fixing PVC joint sealing strips, curing, shifting of paver from one side to other side of canal etc., complete with initial lead upto 1 km and all lifts. (43 Gr Cement content: (300kg /cum) 24 kg / sqm for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum, equivalent concrete volume:84.48 cum including the extra quantity of concrete for curvatures and bends etc.,)	sqm	382.30	
		Labour Component (including contractor's profit and Overheads)	sqm		35.40
IRR-CAW-7-8	149	Providing and laying 100 mm thick in situ M-15 (28 days cube compressive strength not less than 15 N /Sqmm) grade cement concrete with 20 mm down size approved, clean, hard, graded aggregates for canal lining using, vibrating, cylinder type mechanical paver including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, finishing, forming contraction joints, fixing PVC joint sealing strips, curing, shifting of paver from one side to other side of canal etc., complete with initial lead upto 1 Km and all lifts. (43 Gr Cement content: (300kg /cum) 30 kg / sqm for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum, equivalent concrete volume:88 cum including the extra quantity of concrete for curvatures and bends etc.,)	sqm	461.60	
		Labour Component (including contractor's profit and Overheads)	sqm		41.10
IRR-CAW-7-9	150	Dismantling, shifting and re-erecting mechanical concrete paver and DG set with all accessories across canal CD work or other locations wherever shifting and re-erecting is necessary including aligning paver correctly for continuing canal lining work, cost of all materials, machinery, labour etc., complete with all leads and lifts. Note: Local shifting and re-erection of paver for LH and RH side lining included in concrete lining rates under items IRR-CAW-7-7 and IRR-CAW-7-8 and saperate rate for shifting shall not be allowed.	shifting	9958.90	
		Labour Component (including contractor's profit and Overheads)	shifting		7824.40
IRR-CAW-7-10	151	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N /sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for bed and side lining of canal(150mm thick) including finishing the junction of bed and sides to required curveture, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (43 Gr Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum) (Only forManually operated)	cum	4197.40	
		Labour Component (including contractor's profit and Overheads)	cum		1425.20
IRR-CAW-7-11	152	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N/sqm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregade for bed and side lining of canal(100 mm thick) including, finishing the junction of bed and sides to required curveture, cost of all materials, machinery, labour, formwork including supports cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead up to 50 m and all lifts (43 Gr Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	cum	4344.30	
		Labour Component (including contractor's profit and Overheads)	cum		1467.20
IRR-CAW-7-12	153	Providing and laying 100mm thick insitu vibrated M-10 (28 days cube compressive strength-not less than 10.00 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for bed and side lining of canal lining using vibrating cylindertype mechanical paver including cost of all materials mechnery labour batching mixing placing in position forming contraction joints fixing pvc joint seiling strips shifting of paver from one side of canal to other side etc. complete with all leads & lifts. (Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	sqm	450.10	
		Labour Component (including contractor's profit and Overheads)	sqm		41.10

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-7-13	154	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N /sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for bed and side lining of canal including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	4221.60	
		Labour Component (including contractor's profit and Overheads)	cum		1467.20
IRR-CAW-7-14	155	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N /sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for bed and side lining(150 mm thick) of canal including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 290 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	cum	4547.80	
		Labour Component (including contractor's profit and Overheads)	cum		1551.80
IRR-CAW-7-15	156	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N /sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for bed and side lining(of thickness 100 mm) of canal including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 300 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	4664.70	
		Labour Component (including contractor's profit and Overheads)	cum		1638.20
IRR-CAW-7-16	157	Providing and laying 150mm thick insitu vibrated M-15 (28 days cube compressive strength-not less than 15.00 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for bed and side lining of canal lining using vibrating cylindertype mechanical paver including cost of all materials machinery labour batching mixing placing in position forming contraction joints fixing pvc joint sealing strips shifting of paver from one side of canal to other side etc. complete with all leads & lifts. (Cement content: 300 kg / cum for use of super plasticiser(0.4% by wt. of cement),CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.44 cum) (Paver)	sqm	599.00	
		Labour Component (including contractor's profit and Overheads)	sqm		41.10
IRR-CAW-7-17	158	Providing and fixing pre-cast RCC template walls consisting of 0.05 cum M-15 grade concrete using 20 mm down size coarse aggregates and 10 kg reinforcement steel moulded as per specifications and drawing in CM 1:4 proportion including cost of all materials, machinery, labour, formwork, fabricating and placing reinforcement steel, mixing, laying, conveying and fixing in position including necessary excavation for seating, finishing joints in CM 1:4, curing etc., complete with initial lead upto 1 km and all lifts.	Rm	1004.20	
		Labour Component (including contractor's profit and Overheads)	Rm		321.30
IRR-CAW-7-18	159	Providing and fixing 50 mm dia perforated GI pressure relief pipes 12.50 cm long with one end closed with perforated GI plate and other end provided with alluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all leads and lifts.	Each	126.50	
		Labour Component (including contractor's profit and Overheads)	Each		54.00
IRR-CAW-7-19	160	Providing and fixing 50 mm dia perforated GI pressure relief pipes 22.50 cm long with one end closed with perforated GI plate and other end provided with alluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all leads and lifts.	Each	170.70	
		Labour Component (including contractor's profit and Overheads)	Each		54.00
IRR-CAW-7-20	161	Providing and fixing 50 mm dia perforated GI pressure relief pipes 30 cm long with one end closed with perforated GI plate and other end provided with alluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all leads and lifts.	Each	199.10	
		Labour Component (including contractor's profit and Overheads)	Each		54.00

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-7-21	162	Providing and fixing 50 mm dia perforated GI pressure relief pipes 45 cm long with one end closed with perforated GI plate and other end provided with alluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all leads and lifts.	Each	252.20	
		Labour Component (including contractor's profit and Overheads)	Each		54.00
IRR-CAW-7-22	163	Providing and fixing 50 mm dia perforated GI pressure relief pipes 75 cm long with one end closed with perforated GI plate and other end provided with alluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all leads and lifts.	Each	355.00	
		Labour Component (including contractor's profit and Overheads)	Each		54.00
IRR-CAW-7-23	164	Providing and fixing 100 mm dia perforated PVC pipes 40 cm long for Weep holes including cost of all materials, labour, drilling 8 mm dia holes etc. complete with all leads and lifts.	Each	190.60	
		Labour Component (including contractor's profit and Overheads)	Each		27.00
IRR-CAW-7-24	165	Drilling 32 mm dia pressure relief hole below pressure relief pipe for bed and side lining of canal laid on rock including cost of all materials, machinery, labour etc., complete with all leads and lifts.	Each	303.10	
		Labour Component (including contractor's profit and Overheads)	Each		108.80
IRR-CAW-7-25	166	Providing and forming 35 x 35 x 40 cm deep filter drain consisting of 75 mm thick 10 mm down coarse aggregate around pressure relief pipe and 75 mm thick sand around coarse aggregate filter including cost of all materials, labour, excavation of pit etc., complete with lead upto 50 m and all lifts.	Each	28.20	
		Labour Component (including contractor's profit and Overheads)	Each		9.50
IRR-CAW-7-26	167	Providing and fixing 25 to 40 mm thick Shahabad / Talikota / other similar stone slabs with pointing and finishing joints neatly in CM 1:3 proportion for canal / field channel lining including cutting slabs to required size, mixing mortar, finishing joints neatly, curing etc., complete with lead upto 50 m and all lifts.	sqm	361.50	
		Labour Component (including contractor's profit and Overheads)	sqm		82.00
IRR-CAW-7-27	168	Fixing PCC slabs of various sizes in CM 1 : 3 proportion to the side slopes of canal including preparing bed, flush pointing joints in CM 1 : 3 propn, cost of all materials (excluding PCC slabs), labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	90.80	
		Labour Component (including contractor's profit and Overheads)	sqm		76.60
IRR-CAW-7-28	169	Fixing PCC lug slabs of various sizes in CM 1 : 3 proportion for supporting PCC slab lining including necessary excavation, refilling, flush pointing joints in CM 1 : 3 propn, cost of all materials (excluding PCC lug slabs), labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.	Rm	55.40	
		Labour Component (including contractor's profit and Overheads)	Rm		51.20
IRR-CAW-7-29	170	Fixing 30 cm height pre-cast drops for field channels as directed including excavation, etc., complete with all leads and lifts.	Each	217.50	
		Labour Component (including contractor's profit and Overheads)	Each		217.50
IRR-CAW-7-30	171	Providing and fixing LDPE sheet for bed and sides of canal including cost of all materials, labour, laying, joining etc., complete with all leads and lifts. Using 500 micron thick LDPE sheet.	sqm	108.90	
		Labour Component (including contractor's profit and Overheads)	sqm		10.70
		If the surface on which the LDPE sheet is to be laid is too rough and undulating provide 75 mm thick sand backing to LDPE sheet. For providing 75 mm thick Sand for backing add	sqm	19.40	
		Labour Component (including contractor's profit and Overheads)	sqm		10.90
IRR-CAW-7-31	172	Providing and fixing LDPE sheet for bed and sides of canal including cost of all materials, labour, laying, joining etc., complete with all leads and lifts. Using 750 micron thick LDPE sheet.	sqm	158.00	
		Labour Component (including contractor's profit and Overheads)	sqm		14.80
IRR-CAW-7-32	173	Providing and fixing LDPE sheet for bed and sides of canal including cost of all materials, labour, laying, joining etc., complete with all leads and lifts. Using 1000 micron thick LDPE sheet.	sqm	216.60	

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
		Labour Component (including contractor's profit and Overheads)	sqm		19.70
IRR-CAW-7-33	174	Providing and fixing 12 mm thick 380 mm depth tarfelt expansion joint filler boards for stone masonry lining of canal including cost of all materials, labour etc., complete with all leads and lifts.	Rm	151.30	
		Labour Component (including contractor's profit and Overheads)	Rm		9.50
IRR-CAW-7-34	175	Providing and fixing 20 mm thick 100 mm depth tarfelt expansion joint filler boards for cement concrete lining of canal including cost of all materials, labour etc., complete with all leads and lifts.	Rm	65.10	
		Labour Component (including contractor's profit and Overheads)	Rm		9.50
IRR-CAW-7-35	176	Providing and fixing 20 mm thick 150 mm depth tarfelt expansion joint filler boards for cement concrete lining of canal including cost of all materials, labour etc., complete with all leads and lifts.	Rm	94.50	
		Labour Component (including contractor's profit and Overheads)	Rm		9.50
IRR-CAW-7-36	177	Providing and forming 35 mm wide and 10 mm thick construction / contraction joints for concrete lining by mastic filler including cost of all materials, labour etc., complete with all leads and lifts.	Rm	22.60	
		Labour Component (including contractor's profit and Overheads)	Rm		7.00
IRR-CAW-7-37	178	Manufacturing 550 x 550 x 55 mm size PCC lining slabs in M-15 grade (28 days cube compressive strength not less than 15 N /sqmm) cement concrete using 20 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement), CA : 0.80 cum, Blending Ratio of CA : 65:35, FA : 0.45cum)	Each	86.50	
		Labour Component (including contractor's profit and Overheads)	Each		30.10
IRR-CAW-7-38	179	Manufacturing 550 x 300 x 55 mm size PCC lug slabs in M-15 grade (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using 20 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement), CA : 0.80 cum, Blending Ratio of CA : 65:35, FA : 0.45cum)	Each	64.20	
		Labour Component (including contractor's profit and Overheads)	Each		30.10
IRR-CAW-7-39	180	Manufacturing 450 x 300 x 30 mm size PCC lining slabs in M-15 grade (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using 10 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement), CA : 0.68 cum, FA : 0.43cum)	Each	33.50	
		Labour Component (including contractor's profit and Overheads)	Each		19.50
IRR-CAW-7-40	181	Manufacturing 450 x 150 x 30 mm size PCC lug slabs in M-15 grade (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using 10 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement),CA : 0.68 cum, FA : 0.43cum)	Each	27.30	
		Labour Component (including contractor's profit and Overheads)	Each		19.50
IRR-CAW-7-41	182	Manufacturing 600 x 300 x 100mm size PCC lining slabs in M-15 grade (28 days cube compressive strength not less than 15 N/Sqmm) cement concrete using 20 mm down grades coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement), CA : 0.80 cum, FA : 0.45cum, Blending Ratio of CA--65:35)	Each	72.30	
		Labour Component (including contractor's profit and Overheads)	Each		19.30
IRR-CAW-7-42	183	Manufacturing 400 x 400 x 30 mm size PCC lining slabs in M-15 grade (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using 10 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement), CA : 0.68 cum, FA : 0.43cum)	Each	35.20	

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
		Labour Component (including contractor's profit and Overheads)	Each		19.50
IRR-CAW-7-43	184	Manufacturing 400 x 150 x 30 mm size PCC lug slabs in M-15 grade (28 days cube compressive strength not less than 15 N /sqmm) cement concrete using 10 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc.,complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plastizer (0.4% by wt. of cement), CA : 0.68 cum, FA : 0.43cum)	Each	26.80	
		Labour Component (including contractor's profit and Overheads)	Each		19.50
IRR-CAW-7-44	185	Providing and laying uncoursed rubble stone masonry in CM 1 : 5 proportion for canal side lining using stones and chips from approved quarry including cost of all materials, machinery, labour, forming weep holes at specified intervals, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Thickness of the masonry assumed: 0.3 m, rubble stones : 0.96 cum, Stone Chips : 0.15cum,Through Stones 20 x 20 x 30cm : 1/sqm)	cum	1846.20	
		Labour Component (including contractor's profit and Overheads)	cum		740.70
IRR-CAW-7-45	186	Providing and laying uncoursed rubble stone masonry in CM 1:5 proportion for canal side lining using stones from approved quarry including cost of all materials, machinery, labour, forming weep holes at specified intervals, finishing, curing etc., complete with initial lead upto 50m and all lifts.(with no pin headers)(Thickness of the Masonry assumed:0.3 m, rubble stones : 1.1 cum)	cum	3379.80	
		Labour Component (including contractor's profit and Overheads)	cum		2431.80
IRR-CAW-7-46	187	Providing and laying uncoursed rubble stone masonry in CM 1 : 5 proportion for canal side lining using stones and chips from canal excavation including cost of all materials, machinery, labour, forming weep holes at specified interval, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(rubble stones : 0.96 cum, Stone Chips : 0.15cum, Through Stones 20 x 20 x 30cm : 1/sqm)	cum	1742.30	
		Labour Component (including contractor's profit and Overheads)	cum		836.10
IRR-CAW-7-47	188	Providing and laying uncoursed rubble stone masonry in CM 1:5 proportion for canal side lining using stones from canal excavation including cost of all materials, machinery, labour, forming weep holes at specified intervals, finishing, curing etc., complete with initial lead upto 50m and all lifts.(with no pin headers)(rubble stones : 1.1cum, cement : 98kg, sand 0.34 cum)	cum	3186.40	
		Labour Component (including contractor's profit and Overheads)	cum		2431.80
IRR-CAW-8		ROCK PITCHING			
IRR-CAW-8-1	189	Providing and constructing 25 cm thick dry rubble stone pitching with pin headers at 2 per sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(rubble stones : 0.23 cum/sqm, Stone Chips : 0.0375cum/sqm, Pin Headers 30cm : 2/sqm)	sqm	199.00	
		Labour Component (including contractor's profit and Overheads)	sqm		57.90
		If 15 cm thick murum bed is to be provided below pitching add	sqm	56.00	
		Labour Component (including contractor's profit and Overheads)	sqm		18.20
IRR-CAW-8-1-A (New Item4 - 2011-12)	190	Providing and constructing 22.5 cm thick dry rubble stone pitching with pin headers at 2 per sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(rubble stones : 0.207 cum/sqm, Stone Chips : 0.3375cum/sqm, Pin Headers 30cm : 2/sqm) (For Maintenance Works)	sqm	189.70	
		Labour Component (including contractor's profit and Overheads)	sqm		57.90
IRR-CAW-8-2	191	Providing and constructing 25 cm thick dry rubble stone pitching including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(with no pin headers)(rubble stones : 0.33 cum/sqm)	sqm	234.60	
		Labour Component (including contractor's profit and Overheads)	sqm		140.00
IRR-CAW-8-2 - A (New Item5 - 2011-12)	192	Providing and constructing 225 mmm thick dry rubble stone pitching including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(with no pin headers)(rubble stones : 0.2475 cum/sqm) (For Maintenance Works)	sqm	177.60	
		Labour Component (including contractor's profit and Overheads)	sqm		126.00

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-8-3	193	Providing and constructing 30 cm thick dry rubble stone pitching with pin headers at 2 per sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(rubble stones : 0.275 cum/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)	sqm	217.40	
		Labour Component (including contractor's profit and Overheads)	sqm		57.90
IRR-CAW-8-4	194	Providing and constructing 30 cm thick dry rubble stone pitching including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(with no pin headers)(rubble stones : 0.33 cum/sqm)	sqm	281.60	
		Labour Component (including contractor's profit and Overheads)	sqm		167.90
IRR-CAW-8-5	195	Providing and constructing 45 cm thick dry rubble stone pitching with pin headers at 2 per sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(rubble stones : 0.40 cum/sqm, Stone Chips : 0.0675cum/sqm, Pin Headers 45cm : 2/sqm)	sqm	328.90	
		Labour Component (including contractor's profit and Overheads)	sqm		81.60
IRR-CAW-8-6	196	Providing and constructing 45 cm thick dry rubble stone pitching including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(with no pin headers)(rubble stones : 0.495 cum/sqm)	sqm	422.40	
		Labour Component (including contractor's profit and Overheads)	sqm		252.00
IRR-CAW-8-7	197	Providing and constructing 30 cm thick rubble stone pitching set in CM 1: 5 proportion with pin headers at 2 per sqm in including cost of all materials, labour, packing chips and mortar, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(rubble stones : 0.275 cum/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)	sqm	415.30	
		Labour Component (including contractor's profit and Overheads)	sqm		99.30
IRR-CAW-8-8	198	Providing and Constructing 30 cm thick rubble stone pitching set in CM 1:5 Proportion including cost of all materials,labour, packing chips and mortar ,finishing etc., complete(rubble stones : 0.33 cum/sqm)	sqm	301.30	
		Labour Component (including contractor's profit and Overheads)	sqm		21.90
IRR-CAW-8-9	199	Providing and constructing 30 cm thick dry khandki stone pitching using 20 to 25 cm size khandki stones with pin headers at 2 per sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(Khandki stones 20- 25 cm height : 1200 Nos/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)	sqm	313.60	
		Labour Component (including contractor's profit and Overheads)	sqm		57.90
IRR-CAW-8-10	200	Providing and constructing 45 cm thick dry khandki stone pitching using 25 to 30 cm size khandki stones with pin headers at 2 per sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.(Khandki stones 25- 30 cm height : 1200 Nos/sqm, Stone Chips : 0.0675cum/sqm, Pin Headers 45cm : 2/sqm)	sqm	323.90	
		Labour Component (including contractor's profit and Overheads)	sqm		81.60
IRR-CAW-8-11	201	Providing and constructing 30 cm thick khandki stone pitching using 20 to 25 cm size khandki stones with pin headers at 2 per sqm set in CM 1 : 5 proportion with pointing joints in CM 1:3 proportion including cost of all materials, labour, packing chips and mortar, finishing, curing etc.complete with initial lead upto 50 m and all lifts.(Khandki stones 20- 25 cm height : 1200 Nos/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)	sqm	501.00	
		Labour Component (including contractor's profit and Overheads)	sqm		94.80
IRR-CAW-8-12	202	Providing and constructing 45 cm thick khandki stone pitching using 25 to 30 cm stones with pin headers at 2 per sqm set in CM 1 : 5 proportion with pointing joints in CM 1 : 3 proportion including cost of all materials, labour, packing chips and mortar, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Khandki stones 25- 30 cm height : 730 Nos/sqm, Stone Chips : 0.0675cum/sqm, Pin Headers 45cm : 2/sqm)	sqm	585.30	
		Labour Component (including contractor's profit and Overheads)	sqm		130.30
IRR-CAW-8-13	203	Providing 10 cm thick approved type grass turfing to the side slopes of canal including cost of all materials, labour, watering for minimum 15 days etc.,complete with lead 50 m and all lifts.(FA : 2 cum/sqm)	sqm	105.10	
		Labour Component (including contractor's profit and Overheads)	sqm		75.60

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CAW-8-14	204	Providing 10 cm thick approved type grass turfing to the side slopes of canal including cost of all materials, labour, watering for minimum 15 days etc., complete with lead 50 m and all lifts. with no sand	sqm	70.40	
		Labour Component (including contractor's profit and Overheads)	sqm		43.20
Chapter IV					
IRR-CCDW		CANAL CROSS DRAINAGE WORKS			
IRR-CCDW-1		EXCAVATION & FOUNDATION TREATMENT WORKS :			
		(manual means of excavation and conveyance)			
IRR-CCDW-1-1	205	Excavation in all kinds of soil including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.	cum	286.90	
		Labour Component (including contractor's profit and Overheads)	cum		286.90
IRR-CCDW-1-2	206	Excavation for Structures- Mechanical Means (Data adopted from MORTH) Earth work in excavation in all kinds of soils of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material. (depth upto 3 meters)	cum	95.20	
		Labour Component (including contractor's profit and Overheads)	cum		23.20
IRR-CCDW-1-3	207	(manual means of excavation and conveyance) Excavation in ordinary rock (including HDR) without blasting including boulders above 0.3 m upto 0.60 m dia. for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.	cum	411.90	
		Labour Component (including contractor's profit and Overheads)	cum		411.90
IRR-CCDW-1-4	208	(Data adopted from MORTH) (manual means of excavation and conveyance) Excavation in ordinary rock (including HDR) without blasting for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.	cum	121.60	
		Labour Component (including contractor's profit and Overheads)	cum		25.70
IRR-CCDW-1-5	209	(manual means of excavation after blasting and conveyance) Excavation in hard rock requiring blasting including boulders above 0.6 m upto 1.2 m dia. for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.	cum	401.00	
		Labour Component (including contractor's profit and Overheads)	cum		320.70
IRR-CCDW-1-6	210	(manual means of excavation after blasting and conveyance) Excavation in hard rock of all toughness by blasting including boulders above 1.2 m dia. for foundations of canal cross drainage and other appurtenant structures and placing the excavated rock neatly in specified dump area or stack yard as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.	cum	601.20	
		Labour Component (including contractor's profit and Overheads)	cum		395.70
IRR-CCDW-1-7	211	(manual means of excavation after controlled blasting and conveyance) Hard Rock (blasting prohibited) (Data adopted from MORTH) Excavation in hard rock with blasting (blasting prohibited) prohibited for foundations of canal cross drainage and other appurtenant structures and placing the excavated rock neatly in or stack yard as directed etc., complete with specified dump area initial lead upto 50 m and initial lift upto 3 m.	cum	1169.60	
		Labour Component (including contractor's profit and Overheads)	cum		396.90

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-1-8	212	Providing and fixing 25 mm dia 2.50 m long cold twisted deformed steel anchor rods with 1.25 m length driven into 32 mm dia hole drilled in bed rock and remaining length embedded in concrete / masonry including cost of all materials, machinery, labour, drilling and cleaning hole, driving anchor rod, grouting hole with thick cement slurry etc., complete with initial lead upto 50 m and all lifts.	Each	927.70	
		Labour Component (including contractor's profit and Overheads)	Each		241.80
IRR-CCDW-2		STEEL AND CEMENT CONCRETE WORKS :			
IRR-CCDW-2-1	213	Providing, fabricating and placing in position reinforcement steel bars for RCC works including cleaning, straightening, cutting, bending, hooking, lapping, welding wherever required,tying with 1.25 mm dia soft annealed steel wire, including cost of all materials, machinery, labour etc., complete with initial lead upto 50 m and all lifts.	kg	60.30	
		Labour Component (including contractor's profit and Overheads)	kg		9.70
IRR-CCDW-2-2	214	Providing, fabricating and fixing in position structural steel cutting edge consisting of 100 x 100 x 10 mm angle and 250 x 12 mm plate for sinking 4.50 m outer diameter foundation wells foundation wells including cost of all materials, machinery, labour, bending, welding, providing anchors etc., complete with initial lead upto 50 m and all lifts.	kg	74.50	
		Labour Component (including contractor's profit and Overheads)	kg		11.40
IRR-CCDW-2-3	215	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N /sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 260 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA-- 50:30:20, FA : 0.40 cum)	cum	4302.50	
		Labour Component (including contractor's profit and Overheads)	cum		1477.00
IRR-CCDW-2-4	216	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 250 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.98cum, Blending Ratio of CA-- 35:30:20:15, FA : 0.35 cum)	cum	4326.60	
		Labour Component (including contractor's profit and Overheads)	cum		1538.10
IRR-CCDW-2-5	217	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA-- 50:30:20, FA : 0.40 cum)	cum	4043.20	
		Labour Component (including contractor's profit and Overheads)	cum		1411.90
IRR-CCDW-2-6	218	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.98cum, Blending Ratio of CA-- 35:30:20:15, FA : 0.35 cum)	cum	4175.70	
		Labour Component (including contractor's profit and Overheads)	cum		1528.20

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-2-7	219	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 310 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	cum	4622.00	
		Labour Component (including contractor's profit and Overheads)	cum		1552.30
IRR-CCDW-2-8	220	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for sub-structure / super- structure works including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 320 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)	cum	5025.90	
		Labour Component (including contractor's profit and Overheads)	cum		1547.00
IRR-CCDW-2-9	221	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for sub-structure / super- structure works including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	5019.20	
		Labour Component (including contractor's profit and Overheads)	cum		1642.50
IRR-CCDW-2-10	222	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for sub-structure / super- structure works including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 280 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	4792.30	
		Labour Component (including contractor's profit and Overheads)	cum		1645.50
IRR-CCDW-2-11	223	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for sub-structure / super- structure works including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	4379.80	
		Labour Component (including contractor's profit and Overheads)	cum		1529.90
IRR-CCDW-2-12	224	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for well kerb including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 350 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum	cum	6303.90	
		Labour Component (including contractor's profit and Overheads)	cum		1983.00

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-2-13	225	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for well steining including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 320 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	5716.00	
		Labour Component (including contractor's profit and Overheads)	cum		1813.30
IRR-CCDW-2-14	226	Providing and laying insitu M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for well bottom plug by tremie or skip box method including cost of all materials, complete with initial lead upto 50 m and all lifts.(Cement content: 350 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	4213.80	
		Labour Component (including contractor's profit and Overheads)	cum		1439.30
IRR-CCDW-2-15	227	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for well top plug including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 280 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum) If water is to be brought from other place add only lead charges @ 500 ltrs / cum	cum	3975.60	
		Labour Component (including contractor's profit and Overheads)	cum		1405.60
IRR-CCDW-2-16	228	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for well cap including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	4362.40	
		Labour Component (including contractor's profit and Overheads)	cum		1430.10
IRR-CCDW-2-17	229	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates for piers and abutments including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 250 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	5324.30	
		Labour Component (including contractor's profit and Overheads)	cum		1897.60
IRR-CCDW-2-18	230	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates for piers and abutments including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	5173.30	
		Labour Component (including contractor's profit and Overheads)	cum		1886.90

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-2-19	231	Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for piers and abutments including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	5022.30	
		Labour Component (including contractor's profit and Overheads)	cum		1745.40
IRR-CCDW-2-20	232	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for cantiliver / counterfort retaining walls including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 320 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	5626.10	
		Labour Component (including contractor's profit and Overheads)	cum		1806.60
IRR-CCDW-2-21	233	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates with placing and sinking plums of size 150 to 80 mm upto 15 percent for gravity type retaining walls / piers / abutments etc. , including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete with initial lead upto 50 m and all lifts. (Cement content: 260 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.765cum, Blending Ratio of CA--50:30:20, FA : 0.34 cum, plums of size 150 to 80 mm : 0.25cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	5019.60	
		Labour Component (including contractor's profit and Overheads)	cum		1693.00
IRR-CCDW-2-22	234	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 40 mm down size approved, clean, hard,graded aggregates for cast in-situ pipes including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 260 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	4719.20	
		Labour Component (including contractor's profit and Overheads)	cum		1598.40
IRR-CCDW-2-23	235	Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates for cast in-situ pipes including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 250 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	4737.30	
		Labour Component (including contractor's profit and Overheads)	cum		1658.70

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-2-24	236	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for deck slab & kerb including cost of all materials,machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	7842.50	
		Labour Component (including contractor's profit and Overheads)	cum		2370.10
IRR-CCDW-2-25	237	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for columns and beams including cost of all materials, labour, machinery, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete with initial lead upto 50 m and all lifts. (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	6789.20	
		Labour Component (including contractor's profit and Overheads)	cum		2165.60
IRR-CCDW-2-26	238	Providing and laying insitu M- 20 (28 days cube compressive strength not less than 20 N / sqmm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for wearing coat including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position in alternate panels, levelling, compacting, finishing, curing, packing joints with asphalt mortar etc., complete with initial lead upto 50 m and all lifts. (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	4277.80	
		Labour Component (including contractor's profit and Overheads)	cum		1465.40
IRR-CCDW-2-27	239	Providing and laying insitu vibrated M-20 (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for troughs including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position,levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum) If water is to be brought from other place add only lead charges @ 500 ltr / cum.	cum	6146.00	
		Labour Component (including contractor's profit and Overheads)	cum		2011.10
IRR-CCDW-3		FOUNDATION WELL SINKING WORKS :			
IRR-CCDW-3-1	240	Sinking RCC wells vertically for foundation of piers and abutments in all kinds of soil, sand and soft rock by approved well sinking method including cost of all materials, machinery, labour, kent - ledge arrangements, disposal of excavated material as disposal of excavated material as directed etc., complete with lead upto 50 m for disposal of excavated material.(diameter of well 6.00m) (Data adopted from MORTH)	*Rm	4032.10	
		Labour Component (including contractor's profit and Overheads)	*Rm		1947.40
		for 3 to 10 meters for each running meter	*Rm	5671.00	
		Labour Component (including contractor's profit and Overheads)	*Rm		2544.00
IRR-CCDW-3-2	241	Filling foundation wells with sand in layers of 25 to 30 cm and compacting by watering, ramming as directed including cost of all materials, machinery, labour etc., complete with initial lead upto 50 m and all lifts.	cum	250.00	
		Labour Component (including contractor's profit and Overheads)	cum		130.70
IRR-CCDW-4		MASONRY WORKS :			

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-4-1	242	Providing and constructing un-coursed rubble stone masonry with approved stones in CM 1 : 4 proportion for sub-structure portions of return walls / abutments etc. , including cost of all materials, machinery, labour, scaffolding, cleaning, packing cement mortar, wedging stone chips, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 143 kg / cum of masonry, rubble stones : 0.85cum, FA : 0.40 cum,Stone Chips : 0.15 cum)	cum	2076.00	
		Labour Component (including contractor's profit and Overheads)	cum		921.30
IRR-CCDW-4-2	243	Providing and constructing un-coursed rubble stone masonry with approved stones in CM 1 : 4 proportion for super-structure portions of return walls / abutments etc. , including cost of all materials, machinery, labour, scaffolding, cleaning, packing cement mortar, wedging stone chips, curing etc., complete with initial lead upto 50 m and all lifts. (Cement content: 143 kg / cum of masonry, rubble stones : 0.85cum, FA : 0.40 cum,Stone Chips : 0.15 cum)	cum	2125.60	
		Labour Component (including contractor's profit and Overheads)	cum		944.40
IRR-CCDW-4-3	244	Providing and constructing coursed rubble masonry second sort in CM 1:4 proportion with stones from approved source including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, finishing, curing etc., complete with initial lead upto 50 m and initial lift upto 3 m. (Cement content: 133 kg / cum of masonry, rubble stones : 0.45cum, FA : 0.35 cum,Stone Chips : 0.15 cum, Khandki stones 25 x 25 x 30 cm : 180 Nos, Header stones 25 x 25x 45 cm : 60 Nos)	cum	2629.70	
		Labour Component (including contractor's profit and Overheads)	cum		1051.50
IRR-CCDW-4-4	245	Providing and constructing coursed rubble masonry first sort in CM 1:4 proportion with stones from approved source including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, finishing, curing etc., complete with initial lead upto 50 m and initial lift upto 3 m. (Cement content: 133 kg / cum of masonry, rubble stones : 0.45cum, FA : 0.35 cum,Stone Chips : 0.15 cum, Khandki stones 25 x 25 x 30 cm : 180 Nos, Header stones 25 x 25x 45 cm : 60 Nos)	cum	2783.50	
		Labour Component (including contractor's profit and Overheads)	cum		1205.20
IRR-CCDW-4-5	246	Providing cement mortar pointing to coursed rubble face stone masonry in CM 1 : 2 proportion by volume including raking and cleaning joints for 50 mm depth, pressing cement mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	127.30	
		246	sqm		105.10
IRR-CCDW-4-6	247	Providing cement mortar pointing to coursed rubble face stone masonry in CM 1 : 3 proportion by volume including raking and cleaning joints for 50 mm depth, pressing cement mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	121.20	
		Labour Component (including contractor's profit and Overheads)	sqm		105.10
IRR-CCDW-4-7	248	Providing 12 mm thick plastering in cement mortar 1:3 proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	181.80	
		Labour Component (including contractor's profit and Overheads)	sqm		150.50
IRR-CCDW-4-8	249	Providing 12 mm thick plastering in cement mortar 1:4 proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	174.70	
		Labour Component (including contractor's profit and Overheads)	sqm		150.50
IRR-CCDW-4-9	250	Providing 20 mm thick plastering in cement mortar 1:3 proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	252.40	
		Labour Component (including contractor's profit and Overheads)	sqm		200.30
IRR-CCDW-4-10	251	Providing 20 mm thick plastering in cement mortar 1:4 proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., complete with initial lead upto 50 m and all lifts.	sqm	240.50	
		Labour Component (including contractor's profit and Overheads)	sqm		200.30
IRR-CCDW-5		COPING & RAILING WORKS :			

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-5-1	252	Providing and fixing 10 cm thick roughly dressed burnt stone slabs for coping set in CM 1: 6 proportion by volume with pointing to joints in CM 1 : 3 proportion by volume including cost of all materials, machinery, labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 7.5 kg / sqm, FA : 0.030 cum/sqm, Burnt stone slab 10 cm thick 1.05 sqm/ sqm)	sqm	581.90	
		Labour Component (including contractor's profit and Overheads)	sqm		219.30
IRR-CCDW-5-2	253	Providing and fixing 10 cm thick one line dressed burnt stone slabs for coping set in CM 1: 6 proportion by volume with pointing to joints in CM 1 : 3 proportion by volume including cost of all materials, machinery, labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 7.5 kg / sqm, FA : 0.030 cum/sqm, Burnt stone slab 10 cm thick 1.05 sqm/ sqm)	sqm	754.50	
		Labour Component (including contractor's profit and Overheads)	sqm		392.00
IRR-CCDW-5-3	254	Providing and fixing 10 cm thick two line dressed burnt stone slabs for coping set in CM 1: 6 proportion by volume with pointing to joints in CM 1 : 3 proportion by volume including cost of all materials, machinery, labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 7.5 kg / sqm, FA : 0.030 cum/sqm, Burnt stone slab 10 cm thick 1.05 sqm/ sqm)	sqm	977.20	
		Labour Component (including contractor's profit and Overheads)	sqm		614.70
IRR-CCDW-5-4	255	Providing and laying insitu M-15 (28 days cube compressive strength not less than 15 N / sqmm) grade cement concrete using 20 mm down size approved clean, hard, graded aggregates for coping slab including cost of all materials, machinery, labour, formwork, cleaning surface, batching, mixing, placing in position, levelling, compacting, finishing, curing etc., complete with initial lead upto 50 m and initial lift upto 3 m. (Cement content: 300 kg / cum with use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)	cum	5924.00	
		Labour Component (including contractor's profit and Overheads)	cum		1910.40
IRR-CCDW-5-5	256	Providing and constructing protective railing consisting of in-situ railing posts of size 15 x 15 cm at bottom, 10 x 10 cm at top and 75 cm height at 2 m centre to centre in M-20 grade concrete using 20 mm down size graded aggregates and with each post reinforced by 4 Nos. of 8 mm dia main bars embedded in kerb concrete for a depth of 40 cm and 5 Nos. of 6 mm dia. stirrups including fixing 3 rows of 40 mm dia. GI pipes with one coat of red oxide primer and two coats of synthetic enamel paint, cost of all materials, machinery, labour, formwork, finishing, curing etc., complete with lead upto 50 m and all lifts.	Rm	1142.00	
		Labour Component (including contractor's profit and Overheads)	Rm		207.70
IRR-CCDW-6		HUME PIPE LAYING & JOINTING WORKS :			
IRR-CCDW-6-1	257	Laying and jointing 300 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 9.9 kg / joint, FA : 0.01cum/joint, Hemp Yarn : 0.091kg/joint)	Joint	345.20	
		Labour Component (including contractor's profit and Overheads)	Joint		293.10
IRR-CCDW-6-2	258	Laying and jointing 450 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 17.4 kg / joint, FA : 0.022cum/joint, Hemp Yarn : 0.127kg/joint)	Joint	383.20	
		Labour Component (including contractor's profit and Overheads)	Joint		293.10
IRR-CCDW-6-3	259	Laying and jointing 600 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 24.8 kg / joint, FA : 0.025cum/joint, Hemp Yarn : 0.22kg/joint)	Joint	493.40	
		Labour Component (including contractor's profit and Overheads)	Joint		363.60

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-CCDW-6-4	260	Laying and jointing 700 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 32.1 kg / joint, FA : 0.031cum/joint, Hemp Yarn : 0.25kg/joint)	Joint	528.90	
		Labour Component (including contractor's profit and Overheads)	Joint		363.60
IRR-CCDW-6-5	261	Laying and jointing 800 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 39.6 kg / joint, FA : 0.039cum/joint, Hemp Yarn : 0.31kg/joint)	Joint	638.20	
		Labour Component (including contractor's profit and Overheads)	Joint		434.00
IRR-CCDW-6-6	262	Laying and jointing 900 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 44.6 kg / joint, FA : 0.045cum/joint, Hemp Yarn : 0.34kg/joint)	Joint	663.60	
		Labour Component (including contractor's profit and Overheads)	Joint		434.00
IRR-CCDW-6-7	263	Laying and jointing 1000 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 49.5 kg / joint, FA : 0.05cum/joint, Hemp Yarn : 0.377kg/joint)	Joint	734.20	
		Labour Component (including contractor's profit and Overheads)	Joint		479.50
IRR-CCDW-6-8	264	Laying and jointing 1100 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 56.9 kg / joint, FA : 0.058cum/joint, Hemp Yarn : 0.415kg/joint)	Joint	771.20	
		Labour Component (including contractor's profit and Overheads)	Joint		479.50
IRR-CCDW-6-9	265	Laying and jointing 1200 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.(Cement content: 66.8 kg / joint, FA : 0.069cum/joint, Hemp Yarn : 0.453kg/joint)	Joint	915.20	
		Labour Component (including contractor's profit and Overheads)	Joint		574.90
IRR-CCDW-7		BACK FILLING & OTHER WORKS :			
IRR-CCDW-7-1	266	Providing rubble / boulder and sand filling behind abutment and return walls in layers including cost of all materials, machinery, labour, watering, ramming etc., complete with initial lead upto 50 m and initial lift upto 3 m.	cum	649.90	
		Labour Component (including contractor's profit and Overheads)	cum		260.20
IRR-CCDW-7-2	267	Providing and filling murrum / gravelly soil (CNS soil) for foundation or around pipes including breaking clods, spreading in layers of 10 to 15 cm, watering, compaction by earth masters to achieve density control of not less than 95 percent etc., complete with lead upto 50 m and all lifts.	cum	581.70	
		Labour Component (including contractor's profit and Overheads)	cum		329.50
IRR-CCDW-7-3	268	Providing and filling murum / gravelly soil (CNS soil) for foundation or above pipes including breaking clods, spreading in layers of 10 to 15 cm, watering, compaction by power roller to achieve density control of not less than 98 percent etc., complete with lead upto 50 m and all lifts.	cum	403.00	
		Labour Component (including contractor's profit and Overheads)	cum		129.50
IRR-CCDW-7-4	269	Providing and fixing one line dressed 111x35x25 cm thick IRC standard kilometre stone in cement concrete M-10 grade with 40 mm down size aggregates including excavating pit of size 70x45x40 cm, embedding the stone by 30 cm in concrete, providing 2 coats synthetic enamel paint of approved quality and colour to exposed surfaces and lettering as directed, cost of all materials, labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.	Each	1409.40	

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
		Labour Component (including contractor's profit and Overheads)	Each		536.80
IRR-CCDW-7-5	270	Providing and fixing one line dressed 65x15x10 cm thick IRC standard hectometre stone in cement concrete M-10 grade with 40 mm down size aggregates including excavating pit of size 50x45x40 cm, embedding the stone by 30 cm in concrete, providing 2 coats synthetic enamel paint of approved quality and colour to exposed surfaces and lettering as directed, cost of all materials, labour, finishing, curing etc., complete with initial lead upto 50 m and all lifts.	Each	1029.60	
		Labour Component (including contractor's profit and Overheads)	Each		458.80
Chapter V					
IRR-GAW		GATES / HOISTS AND ALLIED WORKS			
IRR-GAW-1-1	271	<u>SPILLWAY RADIAL GATES</u> E.M Parts and anchorages fabrication, supply, erection, testing and commissioning of embedded parts for radial gate consists of sill beam, wall plates, anchor girders , yoke girders, tie flats, trunnion supports etc., including cost of all materials, machinery, labour, welding, finishing, with leads and lifts &all accessories (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per scedule of rates under itemsinthis chapter and add as applicable separately)	tonne	144485.60	
		Labour Component (including contractor's profit and Overheads)	tonne		51729.80
IRR-GAW-1-2	272	<u>RADIAL GATES</u> fabrication, supply, erection, testing and commissioning of radial gate consisting of skin plate, stiffeners, horizontal girders, radial arms, trunnion assemblies, tie beam, pulley supports, bracings, rubber seals, clamps etc., with all accessories for spillway/canals including cost of all materials, machinery, labour, seal fixing etc., complete as per specifications and approved drawings (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per scedule of rates under itemsinthis chapter and add as applicable separately)	tonne	133904.90	
		Labour Component (including contractor's profit and Overheads)	tonne		39534.30
IRR-GAW-1-3	273	<u>RADIAL GATES-ROPE DRUM HOISTS WITH HOIST BRIDGES</u> fabrication, supply, erection, testing and commissioning of electrically operated rope drum hoist of adequate capacity consisting of base frames, rope drums,connecting shaft, gear system, brake system, electric motor, wire ropes, gate position indicator, manual operation arrangement etc., with all accessories for spillway radial gate including cost of all materials, machinery, labour,, greasing, providing hand railing and approach staircase with gate to hoist platform, , complete as per specifications and approved drawings (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per scedule of rates under itemsinthis chapter and add as applicable separately)	tonne capacity	39286.80	
		Labour Component (including contractor's profit and Overheads)	tonne capacity		3161.50
IRR-GAW-1-4	274	<u>RADIAL GATES</u> Walk way(cat walk) Design, fabrication, supply, erection and commissioning of 1 metre wide walkway connecting spillway piers / abutments at trunnion platform level including cost of all materials, machinery, labour, cutting, etc., complete as per specifications and approved drawings (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per scedule of rates under items in this chapter and add as applicable separately)	Rm	104342.40	
		Labour Component (including contractor's profit and Overheads)	Rm		37670.50
IRR-GAW-2-1	275	<u>VERTICAL LIFT GATES-EM PARTS</u> Design, fabrication, supply, erection and commissioning of embedded parts consisting of sill beam, slide tracks, seal seats, guide rails, dogging sets for storage of stoplog elements etc., with all accessories for spillway stop log gates and other vertical lift elements including cost of all materials, machinery, labour, etc., complete as per specifications and approved drawings (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per scedule of rates under items in this chapter and add as applicable separately)	tonne	156736.90	
		Labour Component (including contractor's profit and Overheads)	tonne		61550.70

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-GAW-2-2	276	<u>vertical lift gates and stop log gate elements (SLIDING GATES)</u> Design, fabrication, supply, erection, testing and commissioning of vertical lift gates and stoplog gate elements , consisting of skin plate, horizontal and vertical girders, stiffeners, lifting pins, bronze padded slide blocks/bearings, guide shoes, rubber seals, clamps etc., with all accessories including cost of all materials, machinery, labour, seal fixing etc., complete as per specifications and approved drawings (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately) ²	tonne	138982.40	
		Labour Component (including contractor's profit and Overheads)	tonne		45372.00
IRR-GAW-2-3	277	<u>STOP LOGS-automatic lifting beam</u> fabrication, supply, erection, testing and commissioning of automatic lifting beam with all accessories for handling, lowering and lifting of spillway stop log gate elements including cost of all materials, machinery, labour, cutting, aligning, welding, finishing, etc., complete as per specifications and drawings with all leads and lifts. (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne	115403.60	
		Labour Component (including contractor's profit and Overheads)	tonne		23023.70
IRR-GAW-2-4	278	<u>MOVING GANTRY CRANE-CLASS II</u> fabrication, supply, erection, testing and commissioning of adequate capacity Class- II type moving gantry crane consisting of rail mounted gantry frame, top platform with hand railing, long / cross travel arrangements, rope drums, gear systems, electric motors, electro-magnetic brake system, cabin, control panel, wire rope, ladder, motorised cable reeling drum etc., with all accessories for operating spillway stop log gate elements and river sluice / canal sluice emergency gates including cost of all materials, machinery, labour, etc., complete with all leads and lifts. (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne capacity	216889.20	
		Labour Component (including contractor's profit and Overheads)	tonne capacity		23222.60
IRR-GAW-2-5	279	<u>RAIL TRACK FOR GANTRY CRANE</u> Design, fabrication, supply, erection and commissioning of rail track using 45 kg / m standard rails on spillway bridge for movement of gantry crane for handling and operating spillway stoplog gate elements / river sluice / canal sluice emergency gate including cost of all materials, machinery, labour, complete as per specifications (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	Rm	7299.80	
		Labour Component (including contractor's profit and Overheads)	Rm		570.30
IRR-GAW-2-6	280	<u>VERTICAL LIFT GATES/STOP LOGS - ROLLER MOUNTED</u> Design, fabrication, supply, erection, testing and commissioning of fixed wheel type vertical lift service gate consisting of skin plate, vertical and horizontal girders, wheels, stiffeners, lifting brackets, guide rollers, ballast blocks, teflon clad rubber seals etc., with all accessories for river sluice / canal sluice vent including cost of all materials, machinery, labour, welding, aligning finishing seal fixing etc. with all leads and lifts, complete as per specifications and approved drawings (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne	136335.10	
		Labour Component (including contractor's profit and Overheads)	tonne		43092.50

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-GAW-2-7	281	<u>VERTICAL LIFT GATES-ROPE DRUM HOIST UPTO 30 TON CAP. POWER OPERATED</u> Design, fabrication, supply, erection, testing and commissioning of adequate capacity rope drum hoist consisting of hoist platform, rope drum, gear system, electric motor, electro-magnetic brake system, hand operation assembly, control panel, wire rope, pulleys, ladder etc., with all accessories for operating river sluice / canal sluice service gate including cost of all materials, machinery, labour, , complete as per specifications and drawings with all leads and lifts (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne capacity	64052.70	
		Labour Component (including contractor's profit and Overheads)	tonne capacity		3016.90
IRR-GAW-2-8	282	<u>HOIST BRIDGE/ WITH TRESSELS</u> Design, fabrication, supply, erection and commissioning of structural steel hoist bridge consisting of columns, beams, bracings, stiffeners, ties, chequered plate covering, hand railing, ladder etc., with all accessories for supporting rope drum hoist for operating barrage gates including cost of all materials, machinery, labour, welding, finishing, etc., complete complete as per specifications and drawings with all leads and lifts (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne	116225.10	
		Labour Component (including contractor's profit and Overheads)	tonne		39021.60
IRR-GAW-2-9	283	<u>ROPE DRUM HOIST WITHOUT HOIST BRIDGE FOR BARRAGE GATES</u> Design, fabrication, supply, erection, testing and commissioning of adequate capacity rope drum hoist consisting of rope drum, pulleys, gear system, electric motor, electro-magnetic brake system, manual operation assembly, position indicator, control panel, wire rope etc., with all accessories for operating vertical lift roller gates for barrage including cost of all materials, machinery, labour, cutting, bending, aligning, anchoring, welding, finishing etc., complete with all leads and lifts . (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne capacity	31299.30	
		Labour Component (including contractor's profit and Overheads)	tonne capacity		1279.00
IRR-GAW-2-10	284	<u>SCREW GEAR HOISTS INCLUDING PLATFORM (UPTO 10 TON CAP)</u> Design, fabrication, supply, erection, testing and commissioning of adequate capacity screw gear type hoist consisting of supporting structure, platform, ladder etc., with all accessories for operating canal escape / regulator gate including cost of all materials, machinery, labour, cutting, bending, aligning, anchoring, welding, finishing etc., complete with all leads and lifts . (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne capacity	32998.60	
		Labour Component (including contractor's profit and Overheads)	tonne capacity		5780.30
IRR-GAW-2-11	285	<u>MANUAL OPERATED ROPE DRUM HOISTS</u> Design, fabrication, supply, erection, testing and commissioning of adequate capacity manually operated rope drum hoist consisting of hoist platform, rope drum, gear system, brake system, wire rope, ladder etc., with all accessories for operating canal regulator radial gate including cost of all materials, machinery, labour, welding, finishing, cleaning, ., complete with all leads and lifts (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	tonne capacity	67785.00	
		Labour Component (including contractor's profit and Overheads)	tonne capacity		7733.70

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-GAW-2-12 New Item2015-16-2	286	OT SLUICE SHUTTERS Screw Gear Hoist Including Platform for below 5 Tons Capacity (Small Gates) <u>As per Guidelines of Chief Engineer, Central Designs Organization, Hyderabad</u> <u>Specification drawing for Krishna Delta System</u> Fabrication, supply, erection, testing and commissioning of Embedded parts consisting of supporting structure, platform etc. with all accessories for operating canal escape/ regulator gate with all accessories including cost of all materials, machinery, labour, cutting, bending, aligning, anchoring, welding, finishing etc. complete as per Specification and approved drawings (without painting on mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	Tonne	125742.90	
		Labour Component (including contractor's profit and Overheads)	Tonne		28912.70
IRR-GAW-2-13 New Item2015-16-3	287	OT SLUICE SHUTTERS EM parts for Below 5 Tons capacity (small gates) <u>As per Guidelines of Chief Engineer, Central Designs Organization, Hyderabad</u> <u>Specification drawing for Krishna Delta System</u> Fabrication, supply, erection, testing and commissioning of Embedded parts consisting of sil beam, slide tracks, seal seats, Guide plates etc. with all accessories including cost of all materials, machinery, labour, etc. complete as per specifications and approved drawings. (without painting on mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	Tonne	76675.10	
		Labour Component (including contractor's profit and Overheads)	Tonne		24061.40
IRR-GAW-2-14 New Item2015-16-4	288	OT SLUICE SHUTTERS for Below 5 Tons capacity (small gates) <u>As per Guidelines of Chief Engineer, Central Designs Organization, Hyderabad</u> <u>Specification drawing for Krishna Delta System</u> Fabrication, supply, erection, testing and commissioning of Sluice Shutters consisting of skin plate, horizontal and vertical angles, stiffeners, rubber seals, clamps with all accessories for sluice shutters including cost of all materials, machinery, labour, seal fixing etc., complete as per specifications and approved drawings (without painting on mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)	Tonne	204053.70	
		Labour Component (including contractor's profit and Overheads)	Tonne		12340.90
IRR-GAW-3		SAND BLASTING AND PAINTING			
IRR-GAW-3-1	289	Cleaning gates / hoists / embedded parts/lifting beams etc, to expose fresh metal surface for painting by sand blasting method as per specifications including cost of all materials, labour, machinery, scaffolding, etc., complete with initial lead for sand upto 1 km and all lifts.	sqm	304.10	
		Labour Component (including contractor's profit and Overheads)	sqm		111.20
IRR-GAW-3-2	290	painting of embedded metal parts and all types of gates, stoplogs,etc, on sand blasted surfaces with one coat of inorganic zinc silicate (airless spray preferred)70+/- 5 and two super coats with a total thickness of 300 microns (each 150+/- 5) of solventless coaltar epoxy paint each coat 150 microns (total 300 microns) cost of all materials, labour, scaffolding etc., complete with all leads and all lifts (Upstream surface of gates portion may be painted with solventless coaltar epoxy brown paint instead of solventless coaltar black. The rate for coaltar epoxy brown shall be adopted in data for Upstream side painting)	sqm	508.10	
		Labour Component (including contractor's profit and Overheads)	sqm		231.70
IRR-GAW-3-3	291	painting of Lifting beams,cat walks and other similar structures -painting hoist machinery, on sand blasted surfaces with two coats of zinc phosphate primer (airless spray preferred) 40microns/coat and twocoats of alkyd based micaceous iron oxide paint , 65 microns/coat cost of all materials, labour, scaffolding etc., complete with all leads and all lifts	sqm	367.10	
		Labour Component (including contractor's profit and Overheads)	sqm		177.70
IRR-GAW-3-4	292	HOISTS:STRUCTURAL COMPONENTS-- painting structurals on sand blasted surfaces with two coats of zinc phosphate primer (airless spray preferred) 40microns/coat and one coat 65+/-5 of alkyd based micaceous iron oxide paint followed by two coats of synthetic enamel paint 25 microns/coat cost of all materials, labour, scaffolding etc., complete with all leads and all lifts	sqm	459.50	
		Labour Component (including contractor's profit and Overheads)	sqm		231.70

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-GAW-3-5	293	HOISTS:machineryCOMPONENTS-- painting hoist machinery, on sand blasted surfaces with one coats of zinc phosphate primer (airless spray preferred) 50microns/coat and three coats of aluminium paint or synthetic enamel , 25 microns/coat cost of all materials, labour, scaffolding etc., complete with all leads and all lifts	sqm	426.60	
		Labour Component (including contractor's profit and Overheads)	sqm		231.70
IRR-GAW-4		PAINTING WITHOUT SAND BLASTING			
IRR-GAW-4-1	294	E.M Parts OF ALL TYPES OF GATES Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaning,applying primary coat with one coat of Protective Mastic to athickness of 70+5 microns ,followed by finishing coats 2 coats with coal tar epoxy each coat with a DFT of 150+5 microns and total DFT of all coats including Primary coat should not be less than 350 microns with material, labour and all accessories with all leads and lifts (in respect of Heavily rusted (30 to 40% rusted) surfaces)	sqm	576.20	
		Labour Component (including contractor's profit and Overheads)	sqm		231.70
IRR-GAW-4-2		Deleted from the year2015-16 onwards			
IRR-GAW-4-3	295	HOIST BRIDGES ,HOISTING EQUIPMENT AND CRANES,Etc, Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaning,applying primary coat with two coats of Zinc chromite red oxide primer , followed by finishing coats 3 coats with synthetic enamel paint with material, labour,and all accessories with all leads and lifts where surface cleaning by sand blasting is not feasible and based on specific recommendations of designers, it is to adopt surface preperation done manually by hand and power tool after cleaning by chemical treatment to remove grease, rust, scaling etc., and to form phasphate coating to prevent further rusting, before applying primer painting.	sqm	439.50	
		Labour Component (including contractor's profit and Overheads)	sqm		231.70
IRR-GAW-4-4	296	WALK WAYS(CAT WALKS), LIFTING BEAMS,etc, Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaning,applying primary coat with one coat of Zinc rich epoxy primer to a thickness of 40 microns ,followed by finishing coats 2 coats with coal tar epoxy with material, labour, and all accessories with all leads and lifts	sqm	472.20	
		Labour Component (including contractor's profit and Overheads)	sqm		156.10
Chapter VI					
IRR-PMW		PRELIMINARY AND MAINTENANCE WORKS			
IRR-PMW-1		JUNGLE CLEARANCE :			
IRR-PMW-1-1	297	Clearing thin jungle growth (more than 50 percent open space) including bushes upto 30 cm / parthenium and other weeds including burning or disposing off the same as directed etc., complete.	sqm	1.60	
		Labour Component (including contractor's profit and Overheads)	sqm		1.70
IRR-PMW-1-2	298	Clearing thick jungle growth (less than 50 percent open space) including bushes upto 30 cm / parthenium and other weeds including burning or disposing off the same as directed etc., complete.	sqm	2.60	
		Labour Component (including contractor's profit and Overheads)	sqm		2.60
IRR-PMW-1-3	299	Removing stumps, tree roots, roots of bamboo clusters etc., upto 1.50 m girth including excavation, stacking the materials neatly and levelling the surface etc., complete with initial lead upto 50 m and all lifts.	Each	58.40	
		Labour Component (including contractor's profit and Overheads)	Each		58.40
IRR-PMW-1-4	300	Removing stumps, tree roots, roots of bamboo cluster etc., with girth above 1.50 m and upto 3.0 m including excavation, stacking the materials neatly and levelling the area etc., complete with initial lead upto 50 m and all lifts.	Each	131.40	
		Labour Component (including contractor's profit and Overheads)	Each		131.40

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-PMW-1-5	301	Removing stumps, tree roots, roots of bamboo cluster etc., with girth above 3.0 m and upto 5.0 m including excavation, stacking the materials neatly and levelling the area etc., complete with initial lead upto 50 m and all lifts.	Each	420.40	
		Labour Component (including contractor's profit and Overheads)	Each		420.40
IRR-PMW-1-6	302	Additional rate for every 0.5 m increase in girth of tree stump/stumps of bamboo cluster beyond 5 m	Each	74.70	
		Labour Component (including contractor's profit and Overheads)	Each		74.60
IRR-PMW-1-7	303	Cutting and stacking bamboos excluding removing stumps and roots etc., complete with initial lead upto 50 m and all lifts.	Each	17.00	
		Labour Component (including contractor's profit and Overheads)	Each		17.00
IRR-PMW-1-8	304	Cutting and removing jauliflora bushes upto 1.5 m girth excluding removal of stumps and including burning or disposing off the materials as directed with initial lead upto 50 m and all lifts.	Each	16.50	
		Labour Component (including contractor's profit and Overheads)	Each		16.50
IRR-PMW-1-9	305	Cutting and removing jauliflora bushes above 1.5 m upto 3.0 m girth excluding removal of stumps and including burning or disposing off the materials as directed with initial lead upto 50 m and all lifts.	Each	32.90	
		Labour Component (including contractor's profit and Overheads)	Each		32.90
IRR-PMW-1-10	306	Cutting trees above 0.3 m and upto 0.6 m girth excluding removal of stumps and including stacking the materials neatly as directed with initial lead upto 50 m and all lifts.	Each	110.70	
		Labour Component (including contractor's profit and Overheads)	Each		107.50
IRR-PMW-1-11	307	Cutting trees above 0.6 m and upto 1.2 m girth excluding removal of stumps and including stacking the materials neatly as directed with initial lead upto 50 m and all lifts.	Each	387.40	
		Labour Component (including contractor's profit and Overheads)	Each		376.40
IRR-PMW-1-12	308	Cutting trees above 1.2 m and upto 1.8 m girth excluding removal of stumps and including stacking the materials neatly as directed with initial lead upto 50 m and all lifts.	Each	774.90	
		Labour Component (including contractor's profit and Overheads)	Each		752.70
IRR-PMW-1-13	309	Cutting trees above 1.8 m and upto 2.4 m girth excluding removal of stumps and including stacking the materials neatly as directed with initial lead upto 50 m and all lifts.	Each	1549.70	
		Labour Component (including contractor's profit and Overheads)	Each		1505.40
IRR-PMW-1-14	310	Cutting trees above 2.4 m and upto 3.0 m girth excluding removal of stumps and including stacking the materials neatly as directed with initial lead upto 50 m and all lifts.	Each	2502.90	
		Labour Component (including contractor's profit and Overheads)	Each		2414.30
IRR-PMW-1-15	311	For every 0.5 m increase in girth of tree beyond 3 m add Additional rate for cutting tree for every 0.5 m increase in girth of tree beyond 3 m.	Each	878.70	
		Labour Component (including contractor's profit and Overheads)	Each		852.10
IRR-PMW-1-16	312	Cutting and burning or disposing off Apu / Jundu from marshy areas as directed with initial lead upto 50 m and all lifts.	sqm	6.00	
		Labour Component (including contractor's profit and Overheads)	sqm		6.00
IRR-PMW-2		PRELIMINARY WORKS :			
IRR-PMW-2-1	313	Earthwork excavation for trial pits / borrow pits and other investigation works in all kinds of soil including boulders upto 30 cm dia and disposing off excavated soil as directed with lead upto 10 m and lift upto 3 m.	cum	301.10	
		Labour Component (including contractor's profit and Overheads)	cum		301.10
IRR-PMW-2-2	314	Earthwork excavation for trial pits / borrow pits and other investigation works in soft rock including disposing off the excavated rock as directed with lead upto 10 m and lift upto 3 m.	cum	419.20	
		Labour Component (including contractor's profit and Overheads)	cum		419.20

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-PMW-2-3	315	Conducting geophysical investigation studies by electrical resistivity method in stages of 5m for sub-surface details such as depth of formations, shear zones, classification of strata, depth of water table etc., including cost of all materials, equipments, labour, analysing and reporting the details of field studies conducted etc., complete excluding cost of transportation arrangements.	stage	340.30	
		Labour Component (including contractor's profit and Overheads)	stage		282.10
IRR-PMW-2-4	316	Drilling 80 mm dia hole through over-burden using casing shoe bit vertical or inclined upto 10 degrees to vertical as directed including cost of all materials, machinery, labour, water charges, reaming, collection of wash samples at suitable intervals, logging and labelling, supplying honne wood core box, fixing casing pipes (excluding cost of casing pipes) etc., complete for depth upto 30 m from surface. 1. For drilling through over-burden beyond 30 m from surface increase the rate per Rm by 10 percent. 2. For providing HDPE or light black MS casing pipe add the cost of pipe per Rm.	Rm	1222.70	
		Labour Component (including contractor's profit and Overheads)	Rm		512.60
IRR-PMW-2-5	317	Drilling 76 mm dia (NX) core hole in hard rock using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, collection of core samples, logging and labelling, supplying honne wood core box and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface. 1. For drilling in hard rock beyond 30 m upto 60 m from surface increase the rate per Rm by 25 percent. 2. For drilling in hard rock beyond 60 m upto 90 m from surface increase the rate per Rm by 40 percent.	Rm	6283.70	
		Labour Component (including contractor's profit and Overheads)	Rm		1980.00
IRR-PMW-2-5-A (New Item2015-16)-5	318	Drilling 76 mm dia (NX) core hole in all types of rocks (other than Hard Rock) including Masonry/CC (where drilling is not possible by casing shoe) using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface for Primary and Secondary Holes 1. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 30 m upto 60 m from surface increase the rate per Rm by 25 percent. 2. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 60 m upto 90 m from surface increase the rate per Rm by 40 percent.	Rm	4095.60	
		Labour Component (including contractor's profit and Overheads)	Rm		1181.40
IRR-PMW-2-5-B (New Item2015-16)-6	319	Drilling 76 mm dia (NX) core hole in all types of rocks (other than Hard Rock) including Masonry/CC (where drilling is not possible by casing shoe) using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, collection of core samples, logging and labelling, supplying honne wood core box and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface for Test Holes 1. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 30 m upto 60 m from surface increase the rate per Rm by 25 percent. 2. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 60 m upto 90 m from surface increase the rate per Rm by 40 percent.	Rm	4741.30	
		Labour Component (including contractor's profit and Overheads)	Rm		1182.10

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-PMW-2-6	320	Drilling 47 mm (BX) dia core hole in hard rock using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, collection of core samples, logging, labelling, supplying honne wood core box and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface. 1. For drilling in hard rock beyond 30 m upto 60 m from surface increase the rate per Rm by 25 percent. 2. For drilling in hard rock beyond 60 m upto 90 m from surface increase the rate per Rm by 40 percent.	Rm	6123.10	
		Labour Component (including contractor's profit and Overheads)	Rm		1980.00
IRR-PMW-2-6-A (New Item 2015-16)-7	321	Drilling 47 mm (BX) dia core hole in all types of rocks (other than Hard Rock) including Masonry/CC (where drilling is not possible by casing shoe) using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, and redrilling in case of collapse of sides etc., complete for depth upto 30 m 1. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 30 m upto 60 m from surface increase the rate per Rm by 25 percent. 2. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 60 m upto 90 m from surface increase the rate per Rm by 40 percent.	Rm	3867.70	
		Labour Component (including contractor's profit and Overheads)	Rm		1181.40
IRR-PMW-2-7	322	Providing and fixing 20 x 20 x 75 cm size roughly dressed boundary / demarcation / chainage / arrow stones including cost of all materials, labour, engraving marks, fixing in position, murum filling etc., complete with lead upto 50 m and all lifts.	Each	174.90	
		Labour Component (including contractor's profit and Overheads)	Each		138.30
IRR-PMW-2-8	323	Providing and fixing 20 x 20 x 75 cm size temporary bench mark stone in CC 1 : 4 : 8 using 40 mm down size graded coarse aggregate including cost of all materials, labour, dressing top surface, engraving BM data etc., complete with lead upto 50 m and all lifts.	Each	535.70	
		Labour Component (including contractor's profit and Overheads)	Each		405.60
NOTE:		For providing 30 cm thick compacted murum bed in B.C soil area including additional excavation for thickness of murum bedding add per	Each	4.00	
IRR-PMW-2-9	324	Providing and fixing 20 x 20 x 75 cm size permanent bench mark stone in CC 1 : 3 : 6 block of size 90 x 90 x 120 cm using 40 mm down size graded coarse aggregate and providing 35 cm thick 30 cm high UCR masonry in CM 1 : 5 proportion protective wall around the BM stone, including cost of all materials, labour, dressing top surface of stone, engraving BM data	Each	6210.50	
		Labour Component (including contractor's profit and Overheads)	Each		3618.60
IRR-PMW-3		MAINTENANCE WORKS :			
IRR-PMW-3-1	325	Removing dry stone rock-toe / rivetment and filter layers below rock-toe/ rivetment including stacking all materials separately as directed with initial lead upto 50 m and all lifts.	cum	241.70	
		Labour Component (including contractor's profit and Overheads)	cum		241.80
IRR-PMW-3-2	326	Re-constructing 60 cm thick hand packed rough stone revetment with through stones at 1.5 m c / c over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size graded aggregates satisfying filter criteria laid in layers of 15 cm thick each using sand from approved quarry and stones and filter aggregates obtained from revetment removed for re-construction including cost of all machinery, labour, laying filter and stones to specified slopes, wedging with chips, finishing etc. complete with initial lead upto 50 m and all lifts.	sqm	198.00	
		Labour Component (including contractor's profit and Overheads)	sqm		180.60
IRR-PMW-3-3	327	Re-constructing dry rubble rock-toe and filter media for rock-toe consisting of sand 20 mm and 80 mm size graded aggregates satisfying filter criteria laid in layers of 15 cm thick each using sand from approved quarry and stones and filter aggregates obtained from rock-toe removed for re-construction including cost of all machinery, labour, laying filter and stones to specified slopes, wedging with chips, finishing etc. complete with initial lead upto 50 m and all lifts.	cum	269.90	
		Labour Component (including contractor's profit and Overheads)	cum		258.80

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-PMW-3-4	328	Removing and resetting disturbed Yarguntla / Shahabad / Talikot / PCC / Other types of slab lining set in CM 1 : 3 including flush cement mortar pointing in CM 1 : 3 with lead upto 50 m and all lifts.	sqm	65.10	
		Labour Component (including contractor's profit and Overheads)	sqm		60.20
IRR-PMW-3-5	329	Removing and resetting disturbed dry rubble / khandki stone pitching 25 to 45 cm thick including packing, wedging, finishing etc., complete with all leads and lifts.	sqm	62.90	
		Labour Component (including contractor's profit and Overheads)	sqm		62.90
IRR-PMW-3-6	330	Removing and refixing disturbed chainage / demarcation / hectometre / guard stones including excavation, back filling etc., complete with all leads and lifts.	Each	82.10	
		Labour Component (including contractor's profit and Overheads)	Each		82.10
IRR-PMW-3-7	331	Removing and refixing disturbed km stone / sign board / hecto-metre stone etc., including excavation, back filling with available stuff after refixing, forming base platform of size 90 x 90 x 7.5 cm including watering, ramming etc complete with all leads and lifts.	Each	184.60	
		Labour Component (including contractor's profit and Overheads)	Each		184.60
IRR-PMW-3-8	332	Providing impervious hearting for breached / damaged portion of embankment with soil from approved borrow areas in layers of 10 to 15 cm before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.	cum	188.60	
		Labour Component (including contractor's profit and Overheads)	cum		35.30
IRR-PMW-3-9	333	Providing pervious/semi-pervious casing for breached / damaged portion of embankment with soil from approved borrow areas in layers of 10 to 15 cm before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.	cum	216.00	
		Labour Component (including contractor's profit and Overheads)	cum		42.40
IRR-PMW-3-10	334	Providing impervious hearting for breached / damaged portion of embankment with soil from approved dump areas in layers of 10 to 15 cm before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.	cum	172.60	
		Labour Component (including contractor's profit and Overheads)	cum		33.90
IRR-PMW-3-11	335	Providing pervious /semi-pervious casing for breached /damaged portion of embankment with soil from approved dump areas in layers of 10 to 15 cm before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.	cum	196.90	
		Labour Component (including contractor's profit and Overheads)	cum		40.10
IRR-PMW-3-12	336	Repairing rain cuts / resectioning canal slopes to required lines and grades as directed using available soil including dressing, clod breaking, packing, tamping etc., complete with all leads and lifts.	sqm	4.20	
		Labour Component (including contractor's profit and Overheads)	sqm		4.20
IRR-PMW-3-13	337	Cleaning drainage gallery, adits, instrumentation galleries etc., by scrubbing / brushing including chiselling and removing leached lime deposit and disposing off all the waste material out side adits in specified location etc., complete with all leads and lifts.	Rm	44.40	
		Labour Component (including contractor's profit and Overheads)	Rm		37.30
IRR-PMW-3-14	338	Cleaning dam parapet inner face and top using oxalic acid and water by scrubbing / brushing and washing to remove all surface coatings etc., complete .	Rm	38.30	
		Labour Component (including contractor's profit and Overheads)	Rm		27.30

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-PMW-3-15		Deleted from the year2013-14 onwards			
IRR-PMW-3-16		Deleted from the year2013-14 onwards			
IRR-PMW-3-17		Deleted from the year2013-14 onwards			
IRR-PMW-3-18		Deleted from the year2013-14 onwards			
IRR-PMW-3-19		Deleted from the year2013-14 onwards			
IRR-PMW-3-20	339	Excavation and removal of silt and silt mixed with sand from canal bed in dry condition including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with initial lead upto 50 m and all lifts.	cum	181.80	
		Labour Component (including contractor's profit and Overheads)	cum		181.80
IRR-PMW-3-21	340	Excavation and removal of silt or silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with initial lead upto 50 m and all lifts.	cum	227.20	
		Labour Component (including contractor's profit and Overheads)	cum		227.20
IRR-PMW-3-22 (new Item5 2010-11) (for Minor Works)	341	Providing homogeneous embankment using soil from approved borrow area in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil in layer of specified thickness, breaking clods, sectioning,etc.,complete with initial lead upto 1 km and all lifts.	cum	96.10	
		Labour Component (including contractor's profit and Overheads)	cum		16.60
IRR-PMW-3-23 (new Item6 2010-11) (for Minor Works)	342	Providing homogeneous embankment using soil from approved borrow area in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all operations such as watering, compactingto density control of not less than 95 percent or as stipulated using 8T roller etc., complete with initial lead upto 1 km and all lifts.	cum	47.30	
		Labour Component (including contractor's profit and Overheads)			8.10
IRR-PMW-3-24 (new Item7 2010-11)	343	Providing homogeneous embankment using soil from approved borrow area in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all operations such as compactingto density control of not less than 90 percent or as stipulated using 2T roller etc., complete with initial lead upto 1 km and all lifts.	cum	6.40	
		Labour Component (including contractor's profit and Overheads)	cum		1.50
(New Item 2012-13-3)		Weed Removal by Manual Means			
IRR-PMW-3-25(a)	344	Removal of Water Hyacinth up to 30 cm thick	Sqm	7.40	
IRR-PMW-3-25(b)	345	Removal of Water Hyacinth beyond 30 cm thick	Sqm	10.10	
IRR-PMW-3-25(c)	346	Clearing Alchi Tilla	Sqm	6.80	
IRR-PMW-3-25(d)	347	Removal of Jammu	Sqm	5.70	
IRR-PMW-3-25(e)	348	Removal of Imponea, Cornea	Sqm	6.80	
IRR-PMW-3-25(f) (new Item 2012-13-6)	349	Removal of Natchu, goobi, thooti, etc.	Sqm	2.20	
IRR-PMW-3-26 New Item2015-16-8	350	PAINTING OF SLUICES FOR MAINTENANCE WORKS Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaniong, applying primary coat with one coat of Zinc rich epoxy primer to a thickness of 100 microns, followed by finishing coats 2 coats with Coal tar epoxy with material, labour, and all accessories with all leads and lifts.	Sqm	392.40	
		Labour Component (including contractor's profit and Overheads)	Sqm		190.87

Chapterwise item No.	S.NO	Item description	Unit	Rate	Itemwise unit rate for Labour Component
1	2	3	4	5	6
IRR-PMW-3-27 New Item 2018-19		Lifting of water from rivers/drains to agricultural fields and where there is no element of excavation			
		a) Water lifting charges using Electrical driven pump	per hp hr	10.24	
		Other pumping arrangements including pipes, labour, pump operator etc	per hr	166.78	
		b) Water lifting charges using Diesel driven pump	per hp hr	25.51	
		Other pumping arrangements including pipes, labour, pump operator etc.,	per hr	201.55	
COM-MWRK		New extra items-- common item for all earth works using only manual labour for all other works			
		without involving contractors			
COM-MWRK-1	351	(Manual) Excavation in all kinds of soil including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) With 3 Cum per day output	cum	133.30	
COM-MWRK-2	352	(Manual) Excavation in all kinds of soil/HDR including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) With 2.5 Cum per day output	cum	160	
COM-MWRK-3	353	(Manual) Excavation in soft rock (including F&F rock) without blasting, including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) Soft rock 1.33 Cum/Day	cum	300.80	
COM-MWRK-4	354	(Manual) Excavation in hard rock, including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) Hard rock 0.67Cum/ day	cum	597.00	

COM-LDLFT

Abstract

LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS
FOR THE YEAR: 2018-19

COM-LDLFT

- 1 For total lead upto 150 m (including initial lead) lead charges by head load only shall be adopted irrespective of mode of conveyance.
- 2 For total lead exceeding 150 m conveyance by mechanical means only shall be adopted irrespective of mode of conveyance.
- 3 The rates for loading at quarry including idle hire charges of trucks and hire charges per for each kilometer and upto 5 km are cumulative and inclusive of total charges for preceding lead.
- 4 Unless otherwise specified lead charges for Earth / Sand / Gravel / Aggregates and Stones are for loose volume and not for compacted or in-situ volume.
- 5 The rates for lift charges, lead charges hire charges are cumulative and inclusive of rates for preceding lift, load and hire charges
- 6 Lift charges are not payable where conveyance of materials is by mechanical means to final placing point.
- 7 Loading and unloading charges are not payable for conveyance by head load.
- 8 Loading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 50 m wherever specified.
- 9 Loading and unloading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 1 km wherever specified.
- 10 The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone are inclusive of stacking.
- 11 Hire charges are per 1KM for tippers and trucks for transport of materials from work site to dump yard and other places are cumulative & includes previous km upto 5 kms
- 12 **The lead & lift charges are inclusive of contractor's profit and overhead charges of 13.615%**
- 13 **During the BoCE meeting held on 24-05-2014, it is observed that in some of the estimates, Lead Charges are being added directly to the material basic rates for arriving the finished item rate. In view of that, the BoCE has instructed to see that while arriving the finished item rate, the lead charges are to be added to the material basic rates only after deducting the provision of "Contractor's Profit and Overhead charges"**
- 14 **During the BoCE meeting held on 10.06.2015, the BoCEs has recommended to withdraw lead charges, loading and unloading charges for Cement as per the Sub-Committee minutes of meeting for the month of June -2015 dt:29.06.2015. (The conveyance charges, loading & unloading charges for cement are displayed for information purpose only).**

COM-LDLFT-1 A. (Lead) Conveyance Charges for materials by head load
FOR THE YEAR: 2018-19

SI No.	Total distance (Total lead includes initial lead)	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs/Cum	Cement/Reinforc e-ment steel Str steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab/ Late- rite / Wood Rs / cum
1	2	3	4	5
1	Total lead upto 50 m (covered by item rate)	initial lead	initial lead	initial lead
2	Total lead upto 100 m	64.90	37.90	82.60
3	Total lead upto 150 m	129.80	75.70	165.30

Notes: 1. No loading or unloading charges are admissible for conveyance by head load.

2. For total lead exceeding 150 m conveyance charges by mechanical means only shall be adopted irrespective of mode of conveyance.

3. The Lead & Lift Charges are inclusive of 13.615% Contractor's Profit and Over Head Charges

COM-LDLFT-2 **B.(Lead) Conveyance charges for machinery per kilometer for transporting materials by tippers and trucks excluding loading, unloading and idle hire charges of machinery**

(No loading and unloading charges allowed for machinery loading and unloading)

SI No.	Distance	(Lead) charges for trucks and tippers for Earth / Sand /Gravel / Murrum/ Lime/ Surki/ per cu.meter	(Lead) charges for trucks and tippers for Rubble/Size stones/ Cut Stones/ Coarse aggregate per cu.meter	(Lead) charges for trucks and tippers for Cement/ Steel/ RCC poles/ AC & GI sheets/ Packed materials/tonne	(Lead) charges for trucks and tippers per cu.meter for PCC slabs/ Shahabad slabs/ CC & Laterite blocks/ Wood/ cum	(Lead) charges for trucks and tippers per cu.meter for water/ 1000 litres	(Lead) charges for trucks per 1000 Nos. of Bricks
1	2	3	4	5	6	7	8
1	Lead upto 1 km	32.40	31.50	19.70	46.30	20.20	52.50
2	Lead upto 2 km	45.30	44.10	27.50	64.80	28.20	73.50
3	Lead upto 3 km	60.50	60.50	37.80	88.90	37.60	98.00
4	Lead upto 4 km	73.40	73.40	45.90	108.00	45.70	118.90
5	Lead upto 5 km	86.40	86.40	54.00	127.00	53.70	139.90
6	for Every km beyond 5 km upto 30 km	13.00	13.00	8.10	19.10	8.10	21.00
7	for Every km beyond 30 km	10.80	10.80	6.80	15.90	6.70	17.50

Note:The Lead & Lift Charges are inclusive of 13.615% Contractor's Profit and Over Head Charges

COM-LDLFT-3 **C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (idle hire charges of trucks are not added)**

SI No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	21.40	43.10	71.20	85.30	59.30
2	Unloading	10.70	21.55	71.20	85.30	59.30

Note:The Lead & Lift Charges are inclusive of 13.615% Contractor's Profit and Over Head Charges

COM-LDLFT-4 **D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (including idle hire charges of trucks)**

SI No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	117.00	138.50	176.10	190.20	232.50
2	Unloading	42.50	69.25	176.10	190.20	232.50

Note:The Loading & Unloading Charges are inclusive of 13.615% Contractor's Profit and Over Head Charges

COM-LDLFT-5 **E. LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS (including idle hire charges of trucks)**

SI No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum
1	2	3	4
1	Loading	52.30	104.20
2	Unloading	16.40	16.40

Note: The Loading & Unloading Charges are inclusive of 13.615% Contractor's Profit and Over Head Charges

COM-LDLFT-6 **F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD**

Sl No.	Total lift (Total lift includes initial lift)	Earth / Sand /Gravel Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs / cum	Cement/ Reinforce- ment steel Str steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab / Laterite / Wood Rs / cum
1	2	3	4	5
1	Total lift upto 3 m (covered by item rate)	Initial lift	Initial lift	Initial lift
2	For Every 1.00 Lift beyond initial lift of 3 meters	7.60	5.50	10.10

Note: The Lead & Lift Charges are inclusive of 13.615% Contractor's Profit and Over Head Charges

Chapter - I

DAM AND ALLIED WORKS - Standard Data

(WLL BE WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)

FOR THE YEAR :2018-19

Index- code

IRR-DAW

DAM AND ALLIED WORKS - DATA RATES

Directions to add Seigniorage Charges and Additional Lead Charges

Seigniorage Charges:

1. The unit rate for work item in the Standard Data is **exclusive of Seigniorage Charges** wherever applicable.
2. The appropriate Seigniorage Charges for relevant materials are to be added to the Unit rate of work item while preparing the estimate. (i.e., to the data itself)
3. The Provision towards Contractor's Profit and Overhead charges **should not be operated on** the Seigniorage Charges while adding Seigniorage Charges to the data in the estimate

Additional Lead and Lift Charges:

1. Unless otherwise specified the basic rates are inclusive of all lifts.
2. For concrete, masonry and reinforcement items **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:

Additional lead charges for Steel, sand, coarse aggregate, stones and stone chips shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.

In case of Cement and Steel, Loading and unloading charges are already added in the work item while arriving the unit rate and hence should not be added again

Example:

Total lead for sand from approved sand quarry :		15 Km
Initial lead included in the basic rate in the SR :		1 Km
Additional lead charges : Lead charges for 5 km	Rs.	86.40
Lead charges for next 10 km	Rs.	130
Total lead charges for 15 km /cum	Rs.	216.40
Less 1 km initial lead charges /cum	Rs.	32.40 (-)
Net additional lead charges / cum	Rs.	184.00

3. The Leads for Steel shall be from the nearest market place to the Project area

4. For earth/rockfill embankments **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:

Additional lead charges for Earth, Murrum etc., shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item. **(same as above)**

Example:

Total lead for earth from approved borrow area :		15 Km
Initial lead included in the basic rate in the SR :		1 Km
Additional lead charges : Lead charges for 5 km	Rs.	86.40
Lead charges for next 10 km	Rs.	130
Total lead charges for 15 km /cum	Rs.	216.40
Less 1 km initial lead charges /cum	Rs.	32.40 (-)
Net additional lead charges / cum	Rs.	184.00

5. The initial lead up to 50 m as mentioned in some standard data items is meant for manual lead within the working area. For conveyance of materials, the lead required from quarry/Borrow area/ Dump Area to worksite shall be added to the data without deducting the 50 m initial lead charges

DAW - Work Items

IRR-DAW-1

EXCAVATION & FOUNDATION TREATMENT WORKS:

IRR-DAW-1-1

Excavation for foundation in all kinds of soil including boulders upto 0.30 m diameter for dam, spillway, intake structure and other appurtenant works and placing the excavated soil neatly in dump area or disposing off the same as directed etc., complete with initial lead upto 1 km and all lifts.

DATA:

RATE ANALYSIS

A. MATERIALS:

UNIT
880 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Dumpers 5 cum capacity 6 Nos	Hour	48.00	472.50	22680.00
	Fuel / Energy charges	Hour	48.00	524.90	25195.20
3	Tipper 5 cum capacity 1 No	Hour	8.00	363.50	2908.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
Total hire charges of Machinery				Rs:	74206.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Dumper	Hour	48.00	247.10	11860.80
3	Crew for Tipper	Hour	8.00	193.10	1544.80
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor	Day	16.00	400.00	6400.00
Total cost of Labour					Rs: 22364.80
labour component/unit qty			25.40		
Add contractor's profit and overhead charges			13.615%	3.50	
labour component/unit qty (including contractor's profit)				28.90	

ABSTRACT:

A. Cost of Materials			Rs: 0.00
B. Hire charges of Machinery			Rs: 74206.40
C. Cost of Labour			Rs: 22364.80
	Total		Rs: 96571.20
D. Add for contractor's profit and overheads on (A+B+C)		13.615%	Rs: 13148.17
Total cost for	880.00	cum	Rs: 109719.37
Rate per	cum (A+B+C+D)/880		Rs: 124.70

IRR-DAW-1-2

Excavation for foundation in **ordinary rock (including HDR)** without blasting including boulders above **0.3 m upto 0.6 m** dia for dam, spillway, intake structure and other appurtenant works and placing the excavated material neatly in dump area or disposing off the same as directed etc., complete with **initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS**A. MATERIALS:**UNIT :
520 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs: 0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Dumpers 5 cum capacity(4 Nos)	Hour	32.00	472.50	15120.00
	Fuel / Energy charges	Hour	32.00	524.90	16796.80
3	Tipper 5 cum capacity(1 No)	Hour	8.00	363.50	2908.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
Total hire charges of Machinery					Rs: 58248.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Dumper	Hour	32.00	247.10	7907.20
3	Crew for Tipper	Hour	8.00	193.10	1544.80
4	work inspector	Day	1.00	500.00	500.00
5	Crowbarman	Day	2.50	440.00	1100.00
6	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour					Rs: 17111.20
labour component/unit qty			32.90		
Add contractor's profit and overhead charges			13.615%	4.50	
labour component/unit qty (including contractor's profit)				37.40	

ABSTRACT:

A. Cost of Materials			Rs: 0.00
B. Hire charges of Machinery			Rs: 58248.00
C. Cost of Labour			Rs: 17111.20
	Total		Rs: 75359.20
D. Add for contractor's profit and overheads on (A+B+C)		13.615%	Rs: 10260.16
Total cost for	520.00	cum	Rs: 85619.36
Rate per	cum (A+B+C+D)/520		Rs: 164.70

IRR-DAW-1-3

Excavation for foundation in **hard rock (including F&F rock) requiring blasting** including boulders above **0.6 m upto 1.2 m** dia. for dam, spillway, intake structure and other appurtenant works and placing the excavated material neatly in dump area or disposing off the same as directed etc., complete with **initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS**A. MATERIALS:**UNIT :
520.00 cum.

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of 1.5 m drill rod	Rm	216.00	17.85	3855.60
	Reconditioning charges @ 10%				385.56
2	Use rate of air hose 4 Nos.	Hour	26.00	10.25	266.50
3	Explosive small dia	kg	104.00	56.48	5874.34
4	Electric detonators	Nos	154.00	9.41	1449.76
5	Fuse coil	Rm	320.00	7.32	2343.04
6	Sundries	LS	5.00	31.00	155.00
Total cost of Materials					Rs. 14329.80

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Dumpers 5 cum capacity 4 Nos.	Hour	32.00	472.50	15120.00
	Fuel / Energy charges	Hour	32.00	524.90	16796.80
3	Tipper 5 cum capacity 1 No	Hour	8.00	363.50	2908.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
4	Air compressor 8.5 cmm (ele) 2 Nos	Hour	13.00	139.00	1807.00
	Fuel / Energy charges	Hour	13.00	478.40	6219.20
5	Jack hammers 4 Nos.	Hour	26.00	16.10	418.60
	Fuel / Energy charges	Hour	26.00	0.00	0.00
Total hire charges of Machinery					Rs. 66692.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Dumper	Hour	32.00	247.10	7907.20
3	Crew for Tipper	Hour	8.00	193.10	1544.80
4	Crew for Air compressor	Hour	13.00	181.40	2358.20
5	Crew for Jack hammer	Hour	26.00	362.70	9430.20
6	work inspector	Day	1.00	500.00	500.00
7	Blaster	Day	1.00	550.00	550.00
8	Helper blaster	Day	1.00	440.00	440.00
9	Crowbarman	Day	2.50	440.00	1100.00
10	Stone breaker	Day	1.00	440.00	440.00
11	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour					Rs. 30329.60

labour component/unit qty 58.30

Add contractor's profit and overhead charges 13.615% 7.90

labour component/unit qty (including contractor's profit) **66.20****ABSTRACT:**

A. Cost of Materials	Rs: 14329.80
B. Hire charges of Machinery	Rs: 66692.80
C. Cost of Labour	Rs: 30329.60
Total	Rs: 111352.20
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs. 15160.6
Total cost for	Rs: 126512.80
Rate per	cum. (A+B+C+D)/520 Rs: 243.30

IRR-DAW-1-3A
New Item 2015-16-1

Excavation for foundation in **hard rock (including F&F rock)** including boulders above **0.6 m upto 1.2 m dia. by controlled blasting and controlling fly rock by muffling arrangements** for dam, spillway, intake structure and other appurtenant works and other open foundation works and placing the excavated material neatly in dump area or disposing off the same as directed etc., complete with **initial lead upto 1 km and all leads**

DATA:

RATE ANALYSIS**A. MATERIALS:**UNIT :
520.00 cum.

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of 1.5 m drill rod	Rm	216.00	17.85	3855.60
	Reconditioning charges @ 10%				385.56
2	Use rate of air hose 4 Nos.	Hour	26.00	10.25	266.50
3	Use rate of chain link wire mesh	Sq m	500.00	62.78	31390.63
4	Use rate of Sand Bags	Nos.	190.00	80.23	15243.70
5	Explosive small dia	kg	104.00	56.48	5874.34
6	Electric delay detonators	Nos	154.00	16.74	2577.34
7	Fuse coil	Rm	320.00	7.32	2343.04
8	Sundries	LS	5.00	31.00	155.00
Total cost of Materials					Rs. 62091.71

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Angle dozer 90 hp	Hour	1.00	1395.70	1395.70
	Fuel / Energy charges	Hour	1.00	801.50	801.50
3	Dumpers 5 cum capacity 4 Nos.	Hour	32.00	472.50	15120.00
	Fuel / Energy charges	Hour	32.00	524.90	16796.80
4	Tipper 5 cum capacity 1 No	Hour	8.00	363.50	2908.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
5	Air compressor 8.5 cmm (ele) 2 Nos	Hour	13.00	139.00	1807.00
	Fuel / Energy charges	Hour	13.00	478.40	6219.20
6	Jack hammers 4 Nos.	Hour	26.00	16.10	418.60
	Fuel / Energy charges	Hour	26.00	0.00	0.00
Total hire charges of Machinery					Rs: 68890.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Angle dozer	Hour	1.00	257.40	257.40
3	Crew for Dumper	Hour	32.00	247.10	7907.20
4	Crew for Tipper	Hour	8.00	193.10	1544.80
5	Crew for Air compressor	Hour	13.00	181.40	2358.20
6	Crew for Jack hammer	Hour	26.00	362.70	9430.20
7	work inspector	Day	3.00	500.00	1500.00
8	Blaster	Day	1.50	550.00	825.00
9	Helper blaster	Day	2.00	440.00	880.00
10	Crowbarman	Day	2.50	440.00	1100.00
11	Stone breaker	Day	2.00	440.00	880.00
12	mazdoor	Day	18.00	400.00	7200.00
Total cost of Labour					Rs. 35942.00
labour component/unit qty			69.10		
Add contractor's profit and overhead charges			13.615%	9.40	
labour component/unit qty (including contractor's profit)				78.50	

ABSTRACT:

A. Cost of Materials			Rs: 62091.71
B. Hire charges of Machinery			Rs: 68890.00
C. Cost of Labour			Rs: 35942.00
	Total		Rs: 166923.71
D. Add for contractor's profit and overheads on (A+B+C)	13.615%		Rs: 22726.66
Total cost for	520.00	cum.	Rs: 189650.37
Rate per	cum. (A+B+C+D)/520		Rs: 364.70

IRR-DAW-1-4
(a)

Excavation for foundation in **hard rock of all toughness by blasting** including boulders **above 1.2 m** dia. for dam, spillway, intake structure and other appurtenant works and placing the excavated rock neatly in dump area or stack yard including levelling as directed etc., complete with **initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT					320.00 cum
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of drill rod 1.5 m long	Rm	310.00	23.80	7378.00
	Reconditioning charges @ 10%				737.80
2	Use rate of air hose 4 Nos.	Hour	48.00	10.25	492.00
3	Explosive small dia	kg	95.00	56.48	5365.98
4	Ordinary detonators	Nos	10.00	5.23	52.30
5	Electric detonators	Nos	333.00	9.41	3134.86
6	Fuse coil	Rm	450.00	7.32	3294.90
7	Sundries	LS	5.00	31.00	155.00
Total cost of Materials					Rs: 20610.84

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Dumpers 5 cum capacity 3 Nos.	Hour	24.00	472.50	11340.00
	Fuel / Energy charges	Hour	24.00	524.90	12597.60
3	Tipper 5 cum capacity 1 No	Hour	4.00	363.50	1454.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
4	Angle dozer 90 hp	Hour	1.00	1395.70	1395.70
	Fuel / Energy charges	Hour	1.00	801.50	801.50
5	Air compressor 8.5 cmm (ele) 2 Nos.	Hour	24.00	139.00	3336.00
	Fuel / Energy charges	Hour	24.00	478.40	11481.60
6	Jack hammers 4 Nos.	Hour	48.00	16.10	772.80
	Fuel / Energy charges	Hour	48.00	0.00	0.00
Total hire charges of Machinery					Rs. 65027.60

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Dumper	Hour	24.00	247.10	5930.40
3	Crew for Tipper	Hour	4.00	193.10	772.40
4	Crew for Dozer	Hour	1.00	257.40	257.40
5	Crew for Air compressor	Hour	24.00	181.40	4353.60
6	Crew for Jack hammer	Hour	48.00	362.70	17409.60
7	work inspector	Day	1.00	500.00	500.00
8	Blaster	Day	1.00	550.00	550.00
9	Helper blaster	Day	1.00	440.00	440.00
10	Crowbarman	Day	1.00	440.00	440.00
11	Stone breaker	Day	2.00	440.00	880.00
12	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs. 35992.60	

labour component/unit qty 112.50

Add contractor's profit and overhead charges 13.615% 15.30

labour component/unit qty (including contractor's profit) **127.80****ABSTRACT:**

A. Cost of Materials

Rs: 20610.84

B. Hire charges of Machinery

Rs: 65027.60

C. Cost of Labour

Rs: 35992.60

Total

Rs: 121631.04

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 16560.07

Total cost for 320.00

cum

Rs: **138191.11****Rate per cum (A+B+C+D)/320****Rs: 431.80**IRR-DAW-1-5
(b)

Excavation for foundation in **hard rock of all toughness** including boulders **above 1.2 m dia.** by controlled blasting method and controlling fly-rock by muffling arrangements for dam, spillway, intake structure and other appurtenant structures etc., including placing and levelling the excavated rock neatly in dump area or other place as directed etc., complete with **lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

480.00 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of drill rod 1.5 m length	Rm	464.00	23.80	11043.20
	Reconditioning charges @ 10%				1104.32
2	Use rate of 50 m air hose 4 Nos.	Hour	70.00	10.25	717.50
3	Use rate of chain link wire mesh	sqm	715.00	62.78	44888.59
4	Use rate of sand bag	Nos	580.00	80.23	46533.40
5	Explosive small dia.	kg	149.00	56.48	8416.12
6	Ordinary detonators	Nos	23.00	5.23	120.29
7	Electric delay detonators	Nos	500.00	16.74	8368.00
8	Fuse coil	Rm	700.00	7.32	5125.40
9	Sundries	LS	10.00	31.00	310.00
Total cost of Materials				Rs: 126626.82	

B. MACHINERY:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	12.00	1388.50	16662.00
	Fuel / Energy charges	Hour	12.00	1145.70	13748.40
2	Angle dozer 90 hp	Hour	2.00	1395.70	2791.40
	Fuel / Energy charges	Hour	2.00	801.50	1603.00
3	Dumpers 5 cum capacity 3 Nos.	Hour	36.00	472.50	17010.00
	Fuel / Energy charges	Hour	36.00	524.90	18896.40
4	Tipper 5 cum capacity 1 No	Hour	4.00	363.50	1454.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
5	Air compressor 8.5 cmm (ele) 2 Nos	Hour	35.00	139.00	4865.00
	Fuel / Energy charges	Hour	35.00	478.40	16744.00
6	Jack hammers 4 Nos.	Hour	70.00	16.10	1127.00
	Fuel / Energy charges	Hour	70.00	0.00	0.00
Total hire charges of Machinery				Rs: 96476.00	

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	12.00	257.40	3088.80
2	Crew for Angle dozer	Hour	2.00	257.40	514.80
3	Crew for Dumper	Hour	36.00	247.10	8895.60
4	Crew for Tipper	Hour	4.00	193.10	772.40
5	Crew for Air compressor	Hour	35.00	181.40	6349.00
6	Crew for Jack hammer	Hour	70.00	362.70	25389.00
7	work inspector	Day	4.50	500.00	2250.00
8	Blaster	Day	1.50	550.00	825.00
9	Helper blaster	Day	3.00	440.00	1320.00
10	Crowbarman	Day	2.50	440.00	1100.00
11	Stone breaker	Day	2.50	440.00	1100.00
13	mazdoor	Day	20.00	400.00	8000.00
Total cost of Labour				Rs. 59604.60	

labour component/unit qty	124.20
Add contractor's profit and overhead charges	13.615% 16.90
labour component/unit qty (including contractor's profit)	141.10

ABSTRACT:

A. Cost of Materials			Rs: 126626.82
B. Hire charges of Machinery			Rs: 96476.00
C. Cost of Labour			Rs: 59604.60
		Total	Rs: 282707.42
D. Add for contractor's profit and overheads on (A+B+C)		13.615%	Rs: 38490.62
Total cost for	480.00	cum	Rs: 321198.04
Rate per	cum	(A+B+C+D)/480	Rs: 669.20

IRR-DAW-1-6
(c)

Excavation for foundation in **hard rock of all toughness** including boulders **above 1.2 m dia. by line drilling and smooth blasting and controlling** fly-rock by muffling arrangements for dam, spillway, intake structure and other appurtenant structures etc., including dressing sides and bed to required level / profile, placing and levelling the excavated rock neatly in dump area or other place as directed etc., complete **with lead upto 1 km and all lifts.**

Note :

- i) 1 m width of excavation along the face to be dressed shall be treated as excavation by line drilling and smooth blasting.
- ii) The rate includes controlling fly-rock wherever required.
- iii) The rate under this item shall be paid only on ascertaining that the surface requiring dressing has come off neatly as per specifications or atleast 50 percent of smooth blast holes are visible for inspection and are spaced at specified interval.
- iv) In case, where the above criteria is not fulfilled payment shall be restricted to the rate provided for excavation by normal or controlled blasting as the case may be..

DATA:

RATE ANALYSIS

UNIT :

A. MATERIALS:**40.00 cum**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of drill rod 1.5 m length	Rm	138.00	23.80	3284.40
	Reconditioning charges @ 10%				328.44
2	Use rate of 50 m air hose 4 Nos.	Hour	22.00	10.25	225.50
3	Explosive small dia.	kg	10.50	56.48	593.08
4	Ordinary detonators	Nos	2.00	5.23	10.46
5	Electric delay detonators	Nos	76.00	16.74	1271.94
6	Fuse coil	Rm	140.00	7.32	1025.08
7	Sundries	LS	2.00	31.00	62.00
Total cost of Materials					Rs: 6800.90

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum capacity	Hour	1.00	1388.50	1388.50
	Fuel / Energy charges	Hour	1.00	1145.70	1145.70
2	Angle dozer 90 hp	Hour	0.25	1395.70	348.93
	Fuel / Energy charges	Hour	0.25	801.50	200.38
3	Dumpers 5 cum capacity 3 Nos.	Hour	3.00	472.50	1417.50
	Fuel / Energy charges	Hour	3.00	524.90	1574.70
4	Air compressor 8.5 cmm (ele) 2 Nos	Hour	11.00	139.00	1529.00
	Fuel / Energy charges	Hour	11.00	478.40	5262.40
5	Jack hammers 4 Nos.	Hour	22.00	16.10	354.20
	Fuel / Energy charges	Hour	22.00	0.00	0.00
Total hire charges of Machinery					Rs: 13221.31

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	1.00	257.40	257.40
2	Crew for Angle dozer	Hour	0.25	257.40	64.35
3	Crew for Dumper	Hour	3.00	247.10	741.30
4	Crew for Air compressor	Hour	11.00	181.40	1995.40
5	Crew for Jack hammer	Hour	22.00	362.70	7979.40
6	work inspector	Day	0.50	500.00	250.00
7	Blaster	Day	0.50	550.00	275.00
8	Helper blaster	Day	0.50	440.00	220.00
9	Crowbarman	Day	0.50	440.00	220.00
10	Stone breaker	Day	0.50	440.00	220.00
11	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 13022.85

labour component/unit qty	325.60
Add contractor's profit and overhead charges	13.615% 44.30
labour component/unit qty (including contractor's profit)	369.90

ABSTRACT:

A. Cost of Materials			Rs: 6800.90
B. Hire charges of Machinery			Rs: 13221.31
C. Cost of Labour			Rs: 13022.85
		Total	Rs: 33045.06
D. Add for contractor's profit and overheads on (A+B+C)		13.615%	Rs: 4499.08
Total cost for	40.00	cum	Rs: 37544.14
Rate per	cum	(A+B+C+D)/40	Rs: 938.60

IRR-DAW-1-7

Preparing **foundation bed for masonry or concrete** by benching, stepping, removing all loose material by wedging / chiselling and disposing off the same as directed and cleaning the surface with air and water jet etc. ,complete with **initial lead upto 50 m and all lifts**.

DATA

RATE ANALYSIS

UNIT:

100.00 sqm**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs. 0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Air compressor 8.5 cmm (ele)	Hour	1.00	139.00	139.00
	Fuel / Energy charges	Hour	1.00	478.40	478.40
2	Pump 5 hp (ele)	Hour	1.00	2.40	2.40
	Fuel / Energy charges	Hour	1.00	42.50	42.50
Total hire charges of Machinery					Rs. 662.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Air compressor	Hour	1.00	181.40	181.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	Stone breaker	Day	2.00	440.00	880.00
4	mazdoor	Day	2.50	400.00	1000.00
5	Crowbar man	Day	2.00	440.00	880.00
Total cost of Labour					Rs. 3033.10

labour component/unit qty 30.30

Add contractor's profit and overhead charges 13.615% 4.10

labour component/unit qty (including contractor's profit) **34.40****ABSTRACT:**

A. Cost of Materials

Rs: 0.00

B. Hire charges of Machinery

Rs: 662.30

C. Cost of Labour

Rs: 3033.10

Total

Rs: 3695.40

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs. 503.13

Total cost for 100.00 sqm

Rs: **4198.53****Rate per sqm (A+B+C+D)/100**Rs: **42.00**

IRR-DAW-1-8

Preparing **foundation bed for cut-off trench filling in rock portion** by removing all loose materials by wedging / chiselling and disposing off the same as directed etc., complete **with initial lead upto 50 m and all lifts**.

DATA

RATE ANALYSIS

UNIT:

100.00 sqm**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs. 0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Machinery					Rs. 0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crowbar man	Day	2.00	440.00	880.00
2	Stone breaker	Day	2.00	440.00	880.00
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs. 2560.00

labour component/unit qty 25.60

Add contractor's profit and overhead charges 13.615% 3.50

labour component/unit qty (including contractor's profit) **29.10****ABSTRACT:**

A. Cost of Materials

Rs: 0.00

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 2560.00

Total

Rs: 2560.00

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs. 348.54

Total cost for 100.00 sqm

Rs: **2908.54****Rate per sqm (A+B+C+D)/100**Rs: **29.10**

IRR-DAW-1-9

Drilling 45 to 50 mm dia holes vertical or inclined upto 10 degrees to vertical in rock /masonry/ concrete by percussion drilling using waggon drill or any other suitable equipment including cost of all materials, machinery, labour, redrilling through partially set grout wherever required etc., complete.

for drilling upto 6 m depth from surface.

NOTE:

The item rate for drilling through rock / masonry / concrete includes redrilling through partially set grout, if any, in the portion of hole already grouted.

Data

RATE ANALYSIS

UNIT:

A. MATERIALS:**96.00 Rm**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of cross bit 50 mm dia	Rm	96.00	62.38	5988.00
2	Use rate of 50 mm dia air hose 50 m	Hour	8.00	15.88	127.00
3	Use rate of extension rod 4.5 m	Rm	96.00	5.64	541.44
Total cost of Materials					Rs. 6656.44

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Waggon drill	Hour	8.00	153.40	1227.20
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	Air compressor 8.5 cmm (ele)	Hour	8.00	139.00	1112.00
	Fuel / Energy charges	Hour	8.00	478.40	3827.20
3	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 6228.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Waggon drill	Hour	8.00	308.90	2471.20
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 4722.40

labour component/unit qty 49.20

Add contractor's profit and overhead charges 13.615% 6.70

labour component/unit qty (including contractor's profit) **55.90****ABSTRACT:**

A. Cost of Materials

Rs: 6656.44

B. Hire charges of Machinery

Rs: 6228.40

C. Cost of Labour

Rs: 4722.40

Total

Rs: 17607.24

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 2397.23

Total cost for 96.00 Rm

Rs: **20004.47****Rate per Rm (A+B+C+D)/96****Rs: 208.40**

Upto 6 m from surface

208.40

Beyond 6 m upto 12 m from surface :

Upto 6 m from surface

Rate per Rm**Rs: 208.40**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @

10%

Rs: 20.84

Beyond 6 m upto 12 m from surface

Rate / Rm

Rs: 229.20

Beyond 12 m upto 18 m from surface :

For 6 m to 12 m from surface

Rate per Rm**Rs: 229.20**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @

10%

Rs: 22.92

Beyond 12 m upto 18 m from surface

Rate / Rm

Rs: 252.10

Beyond 18 m upto 24 m from surface

:

For 12 m to 18 m from surface

Rate per Rm**Rs: 252.10**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @

10%

Rs: 25.21

Beyond 18 m upto 24 m from surface

Rate / Rm

Rs: 277.30

Beyond 24 m upto 30 m from surface

:

For 18 m to 24 m from surface

Rate per Rm**Rs: 277.30**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @ :

10%

Rs 27.73

Beyond 24 m upto 30 m from surface

Rate / Rm

Rs: 305.00

Beyond 30 m upto 36 m from surface

:

For 24 m to 30 m from surface

Rate per Rm**Rs: 305.00**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @

10%

Rs: 30.50

Beyond 30 m upto 36 m from surface

Rate / Rm

Rs: 335.50

Beyond 36 m upto 42 m from surface

:

For 30 m to 36 m from surface

Rate per Rm**Rs: 335.50**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @

10%

Rs: 33.55

Beyond 36 m upto 42 m from surface

Rate / Rm

Rs: 369.10

Beyond 42 m upto 48 m from surface

For 36 m to 42 m from surface

Rate per Rm**Rs: 369.10**

Add for redrilling through partially set grout / additional extension rods / reduction in rate of drilling etc @

10%

Rs: 36.91

Beyond 42 m upto 48 m from surface

Rate / Rm

Rs: 406.00

IRR-DAW-1-10

Flushing grout holes of all sizes with water and air jets alternatively for an average period of 30 minutes including water intake observations after flushing, cost of all materials, machinery, labour etc., **complete.**

DATA:

RATE ANALYSIS

UNIT :

192.00 Rm.**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of air hose 2 Nos x 8 hrs	Hour	16.00	10.25	164.00
2	Use rate of water hose 2 Nos x 8 hrs	Hour	16.00	10.31	164.96
3	Sundries	LS	2.00	31.00	62.00
Total cost of Materials					Rs: 390.96

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Air compressor 8.5 cmm (ele)	Hour	8.00	139.00	1112.00
	Fuel / Energy charges	Hour	8.00	478.40	3827.20
2	Pump 5 hp (ele)	Hour	8.00	2.40	19.20
	Fuel / Energy charges	Hour	8.00	42.50	340.00
3	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 5360.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Air compressor	Hour	8.00	181.40	1451.20
2	Crew for Pump	Hour	8.00	91.70	733.60
3	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour					Rs: 3784.80

labour component/unit qty 19.70

Add contractor's profit and overhead charges 13.615% 2.70

labour component/unit qty (including contractor's profit) **22.40****ABSTRACT:**

A. Cost of Materials

Rs: 390.96

B. Hire charges of Machinery

Rs: 5360.40

C. Cost of Labour

Rs: 3784.80

Total

Rs: 9536.16

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 1298.35

Total cost for 192.00

Rm.

Rs: **10834.51****Rate per Rm.**

(A+B+C+D)/192

Rs: **56.40**IRR-DAW-1-11
(a)

Consolidation grouting with neat cement grout mix of suitable consistency under specified pressure as directed in drilled holes by stage grouting method including cost of all materials, machinery, labour, redrilling if necessary etc., **complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

1.05 tonne**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	tonne	1.05	3882.00	4076.10
2	Use rate of 50 m pressure hose	Hour	8.00	10.25	82.00
3	Sundries (packer assembly etc)	LS	3.00	31.00	93.00
Total cost of Materials					Rs: 4251.10

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Grouting equipment	Hour	8.00	20.30	162.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	Pump 5 hp (ele)	Hour	2.00	2.40	4.80
	Fuel / Energy charges	Hour	2.00	42.50	85.00
3	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 654.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Grout pump	Hour	8.00	290.20	2321.60
2	Crew for Pump	Hour	2.00	91.70	183.40
3	mazdoor (cement handling)	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 3305.00

labour component/unit qty 3147.60

Add contractor's profit and overhead charges 13.615% 428.50

labour component/unit qty (including contractor's profit) **3576.10****ABSTRACT:**

A. Cost of Materials

Rs: 4251.10

B. Hire charges of Machinery

Rs: 654.20

C. Cost of Labour

Rs: 3305.00

Total

Rs: **8210.30**

D.Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs. 1117.83
Lead Charges for 1Km for Cement 1.05 Tonne @ (including Loading and Unloading Charges)	162.10 Rs/Tonne	170.205
Total cost for	1.05 tonne	Rs: 9498.34
Rate per tonne	(A+B+C+D)/1.05	Rs: 9046.00

IRR-DAW-1-12
(b)

Curtain grouting with neat cement grout mix of suitable consistency under specified pressure as directed in drilled holes by stage grouting method including cost of all materials, machinery, labour, redrilling if necessary etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :
1.05 tonne

A. MATERIALS:

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	tonne	1.05	3882.00	4076.10
2	Use rate of 100 m pressure hose	Hour	8.00	20.5	164.00
3	Use rate of 400 m GI pipe	Hour	8.00	5.6	44.80
4	Sundries (packer assembly etc)	LS	3.00	31.00	93.00
Total cost of Materials					Rs: 4377.90

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Grouting equipment	Hour	8.00	20.30	162.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	Pump 5 hp (ele)	Hour	2.00	2.40	4.80
	Fuel / Energy charges	Hour	2.00	42.50	85.00
3	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 654.20

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Grout pump	Hour	8.00	290.20	2321.60
2	Crew for Pump	Hour	2.00	91.70	183.40
3	Pipe fitter	Day	1.00	550.00	550.00
4	mazdoor (cement handling)	Day	3.00	400.00	1200.00
Total cost of Labour					Rs: 4255.00

labour component/unit qty 4052.40

Add contractor's profit and overhead charges 13.615% 551.70

labour component/unit qty (including contractor's profit) **4604.10**

ABSTRACT:

A. Cost of Materials	Rs: 4377.90
B. Hire charges of Machinery	Rs: 654.20
C. Cost of Labour	Rs: 4255.00
	Rs: 9287.10
D.Add for contractor's profit and overheads on (A+B+C)	13.615%Rs. 1264.44

Lead Charges for 1Km for Cement 1.05 Tonne @ (including Loading and Unloading Charges)	162.10 Rs/Tonne	170.205
Total cost for	1.05 tonne	Rs: 10721.75
Rate per tonne	(A+B+C+D)/1.05	Rs: 10211.20

IRR-DAW-1-13

Providing and **fixing 25 mm dia 3 m long cold twisted deformed steel dowel bars** with one end driven into 45 to 50 mm diameter 1.50 m deep hole drilled in bed rock and other end provided with L-bend for embedding in concrete / masonry of over flow / non-over flow blocks and other appertenant works including cost of drilling and cleaning hole, filling hole with cement mortar 1 : 1 proportion, driving anchor rod, cost of all materials, machinery, labour etc., complete **with initial lead upto 1 km and all lifts.**
Consider 25 anchor rods for analysis.

DATA:

RATE ANALYSIS

UNIT:
25 Nos.

A. MATERIALS

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of drill bit 50 mm dia	Rm	37.50	62.38	2339.25
2	Use rate of air hose 50 m	Hour	4.00	15.88	63.52
3	Anchor rod 25 mm dia	kg	303.22	42.00	12735.24
4	Cement	kg	75.00	3.88	291.15
5	Sand (screened)	cum	0.05	182.00	9.10
Total cost of Materials					Rs: 15438.26

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Air compressor 8.5 cmm (ele)	Hour	4.00	139.00	556.00
	Fuel / Energy charges	Hour	4.00	478.40	1913.60
2	Waggon drill	Hour	4.00	153.40	613.60
	Fuel / Energy charges	Hour	4.00	0.00	0.00
Total hire charges of Machinery					Rs: 3083.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Air compressor	Hour	4.00	181.40	725.60
2	Crew for Waggon drill	Hour	4.00	308.90	1235.60
3	Bar bender	Day	0.50	600.00	300.00
4	Mason CI- II	Day	0.50	440.00	220.00
5	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour					Rs: 2881.20

labour component/unit qty 115.20

Add contractor's profit and overhead charges 13.615% 15.70

labour component/unit qty (including contractor's profit) **130.90****ABSTRACT:**

A. Cost of Materials

Rs: 15438.26

B. Hire charges of Machinery

Rs: 3083.20

C. Cost of Labour

Rs: 2881.20

Total

Rs: 21402.66

D.Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs. 2913.97

Lead Charges for 1 Km for FA

0.05 cum @

32.4 Rs./Cum

1.62

Lead Charges for 1Km for Steel (including Loading and Unloading Charges)

0.30 tonne @

190.3 Rs./Tonne

57.702766

Total cost for

25.00

Nos.

Rs: **24375.95****Rate per****Each**

(A+B+C+D)/25

Rs: 975.00

IRR-DAW-1-14

Providing and **fixing 25 mm dia. 2.75 m long ribbed steel anchor rods** with one end split and driven firmly using steel wedge into 1.25 m deep 45 to 50 mm dia. hole drilled in bed rock and other end provided with L- bend for embedding in concrete / masonry for spillway and appurtenant works including drilling and cleaning hole, filling hole with thick cement slurry, driving anchor rod, cost of all materials, machinery, labour, steel wedge etc., complete with **initial lead upto 1 km and all lifts**.
Consider 25 anchor rods for analysis.

DATA:

RATE ANALYSIS

UNIT:

25.00 Nos.**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of 50 mm dia drill bit	Rm	31.25	62.38	1949.38
2	Use rate of air hose 50 m 1 Nos.	Hour	3.00	15.88	47.64
3	Anchor rod 25 mm dia	kg	277.92	42.00	11672.64
4	Cement	kg	62.50	3.88	242.63
5	Gas for splitting anchor rods	LS	5.00	32.90	164.50
6	Steel wedges	LS	10.00	15.00	150.00
Total cost of Materials					Rs: 14226.79

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Air compressor 8.5 cmm (ele)	Hour	3.00	139.00	417.00
2	Fuel / Energy charges	Hour	3.00	478.40	1435.20
	Waggon drill	Hour	3.00	153.40	460.20
	Fuel / Energy charges	Hour	3.00	0.00	0.00
Total hire charges of Machinery					Rs: 2312.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Air compressor	Hour	3.00	181.40	544.20
2	Crew for Waggon drill	Hour	3.00	308.90	926.70
3	Bar bender	Day	0.50	600.00	300.00
4	Mason CI- II	Day	0.50	440.00	220.00
5	Gas cutter	Day	1.00	490.00	490.00
6	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 3280.90

labour component/unit qty 131.20

Add contractor's profit and overhead charges 13.615% 17.90

labour component/unit qty (including contractor's profit) **149.10****ABSTRACT:**

A. Cost of Materials

Rs: 14226.79

B. Hire charges of Machinery

Rs: 2312.40

C. Cost of Labour

Rs: 3280.90

Total

Rs: 19820.09

D.Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs. 2698.51

Lead Charges for 1Km for Steel (including Loading and Unloading Charges)

0.28 tonne @

190.3 Rs./Tonne

52.888176

Total cost for

25.00

Nos.

Rs: **22571.49****Rate per****Each**

(A+B+C+D)/25

Rs: 902.90

IRR-DAW-2

REINFORCEMENT & CEMENT CONCRETE WORKS :

IRR-DAW-2-1A

Providing, fabricating and **placing in position reinforcement steel for RCC, below 36 dia rods** overlaps and wastages wherever required, tying with 1.25 mm diameter soft annealed steel wire, including cost of all materials, machinery, labour etc., complete with **initial lead upto 1 km and all lifts**.
overlaps and wastage as per NHAI-data
Lap jointing considered for bars upto 36 mm diameter.

DATA:

RATE ANALYSISUNIT :
1.00 tonne**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Rein.Steel with 5 % wastage	tonne	1.05	42000.00	44100.00
2	Binding wire 1.25 mm dia	kg	9.00	53.00	477.00
Total cost of Materials					Rs: 44577.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Bar bender	Day	2.00	600.00	1200.00
2	mazdoor	Day	6.84	400.00	2736.00
Total cost of Labour					3936.00

labour component/unit qty 3936.00

Add contractor's profit and overhead charges 13.615% 535.90

labour component/unit qty (including contractor's profit) **4471.90**

A.MATERIAL 44577.00

B.MACHINERY 0.00

C. LABOUR 3936.00

Total 48513.00

D.Add for contractor's profit and overheads on A+B+C 13.615% 6605.04

Lead Charges for 1Km for Steel (including Loading and Unloading Charges) 190.30 Rs/Tonne 199.815

Total cost for 1.00 tonne **55317.86****Rate per/ TON.=(A+B+C+D) / I 55317.86**

IRR-DAW-2-1B

Providing, fabricating and **placing in position reinforcement steel for RCC above 36 dia with welding** and wastage at 2.5%, tying with 1.25 mm diameter soft annealed steel wire, including cost of all materials, machinery, labour etc., complete with **initial lead upto 1 km and all lifts.**

overlaps and wastage as per NHAI-data
welding joints considered for bars above 36 mm diameter.

DATA:

RATE ANALYSISUNIT :
1.00 tonne**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Rein.Steel with 2.5 % wastage	tonne	1.025	42000.00	43050.00
3	Welding electrodes 5 per joint and 14 joints per One	One	70.00	11.00	770.00
Total cost of Materials					Rs: 43820.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	welding machine	hour	10.00	14.10	141.00
	fuel charges	hour	10.00	102.10	1021.00
Total hire charges of Machinery					Rs: 1162.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	welder	day	2.50	490.00	1225.00
2	Bar bender	Day	2.00	600.00	1200.00
3	mazdoor	Day	6.84	400.00	2736.00
Total cost of Labour					5161.00

labour component/unit qty 5161.00

Add contractor's profit and overhead charges 13.615% 702.70

labour component/unit qty (including contractor's profit) **5863.70****ABSTRACT:**

A. Cost of Materials 43820.00

B. Hire charges of Machinery 1162.00

C. Cost of Labour 5161.00

Total 50143.00

D.Add for contractor's profit and overheads on A+B+C 13.615% 6826.97

Lead Charges for 1Km for Steel (including Loading and Unloading Charges) 190.30 Rs/Tonne 195.0575

Total cost for 1.00 tonne **57165.03****Rate per/ TON.=(A+B+C+D) / I 57165.03**

IRR-DAW-2-2

Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 250 kg /cum with use of super plasticiser equal to 0.4% of cement content , CA : 0.98 cum, Blending Ratio of CA -- 40:30:20:10, FA : 0.35 cum)**

DATA:

RATE ANALYSIS

UNIT:

240.00 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	60000.00	3.88	232920.00
	Cement for incidentals @ 3 kg / cum	kg	720.00	3.88	2795.04
2	Coarse aggregate 80-40 mm	cum	94.08	622.00	58517.76
	Coarse aggregate 40-20 mm	cum	70.56	1133.00	79944.48
	Coarse aggregate 20-10 mm	cum	47.04	1182.00	55601.28
	Coarse aggregate 10 mm below	cum	23.52	860.00	20227.20
3	Fine aggregate (Un-screened)	cum	84.00	100.00	8400.00
4	Super Plasticizer or AEA	kg	240.00	43.00	10320.00
5	Use rate of shuttering	sqm	120.00	330.10	39612.00
Total cost of Materials					Rs: 508337.76

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Batching plant	Hour	8.00	505.00	4040.00
	Fuel / Energy charges	Hour	8.00	467.70	3741.60
2	Air compressor 7 cmm (ele)	Hour	8.00	107.30	858.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
3	Tipper	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Tower crane 5 t	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
5	Concrete bucket	Hour	40.00	12.90	516.00
	Fuel / Energy charges	Hour	40.00	0.00	0.00
6	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Needle vibrator 60 mm dia (ele)	Hour	16.00	7.90	126.40
	Fuel / Energy charges	Hour	16.00	12.80	204.80
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery					Rs: 52638.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for Tipper (4)	Hour	32.00	193.10	6179.20
4	Crew for Tower crane (2)	Hour	16.00	205.90	3294.40
5	Crew for Pump	Hour	8.00	91.70	733.60
6	Crew for Needle vibrator (2)	Hour	16.00	174.10	2785.60
7	Mason Class-I	Day	4.00	475.00	1900.00
8	Foreman	Day	2.00	550.00	1100.00
9	mazdoor				
	for silo (cement handling)	Day	2.00	400.00	800.00
	for batching plant	Day	2.00	400.00	800.00
	for conveyor system	Day	2.00	400.00	800.00
	for laying & vibrating	Day	6.00	400.00	2400.00
	for cleaning / washing / curing	Day	2.00	400.00	800.00
10	Labour cost for shuttering	sqm	120.00	149.40	17928.00
Total cost of Labour					Rs: 43936.80

labour component/unit qty 183.10

Add contractor's profit and overhead charges 13.615% 24.90

labour component/unit qty (including contractor's profit) **208.00****ABSTRACT:**

A. Cost of Materials Rs: 508337.76

B. Hire charges of Machinery Rs: 52638.80

C. Cost of Labour Rs: 43936.80

Total Rs: 604913.36

Add for conveyor system @ 3.00% 18147.40

Add for electric sub-station/ Demand charges @ 2.5% 15122.83

Add for trestle bridge for tower crane track @ 4.0% 24196.53

Total Rs: 662380.12

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs. 90183.05

Lead Charges for 1 Km for FA 84.00 cum @ 32.4 Rs./Cum 2721.6

Lead Charges for 1 Km for CA 235.20 cum @ 31.5 Rs./Cum 7408.80

Total cost for 240.00 cum Rs: **762693.57****Rate per cum (A+B+C+D)/240 Rs: 3177.90**IRR-DAW-2-2A
New Item1-2010-11

Providing and laying **insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **plain concrete works** with initial lead upto 1 km and all lifts. (Cement content : 300 kg /cum with use of 0.4% of cement content super plasticiser , CA : 0.90 cum, Blending Ratio of CA -- 40:30:20:10, FA : 0.40 cum)

DATA:

RATE ANALYSIS

UNIT:

240.00 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	72000.00	3.88	279504.00
	Cement for incidentals @ 3 kg / cum	kg	720.00	3.88	2795.04
2	Coarse aggregate 80-40 mm	cum	86.40	622.00	53740.80
	Coarse aggregate 40-20 mm	cum	64.80	1133.00	73418.40
	Coarse aggregate 20-10 mm	cum	43.20	1182.00	51062.40
	Coarse aggregate 10 mm below	cum	21.60	860.00	18576.00
3	Fine aggregate (Un-Screened)	cum	96.00	100.00	9600.00
4	Super Plasticizer or AEA	kg	288.00	43.00	12384.00
5	Use rate of shuttering	sqm	120.00	330.10	39612.00
Total cost of Materials				Rs: 540692.64	

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Batching plant	Hour	8.00	505.00	4040.00
	Fuel / Energy charges	Hour	8.00	467.70	3741.60
2	Air compressor 7 cmm (ele)	Hour	8.00	107.30	858.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
3	Tipper	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Tower crane 5 t	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
5	Concrete bucket	Hour	40.00	12.90	516.00
	Fuel / Energy charges	Hour	40.00	0.00	0.00
6	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Needle vibrator 60 mm dia (ele)	Hour	16.00	7.90	126.40
	Fuel / Energy charges	Hour	16.00	12.80	204.80
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs: 52638.80	

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for Tipper (4)	Hour	32.00	193.10	6179.20
4	Crew for Tower crane (2)	Hour	16.00	205.90	3294.40
5	Crew for Pump	Hour	8.00	91.70	733.60
6	Crew for Needle vibrator (2)	Hour	16.00	174.10	2785.60
7	Mason Class-I	Day	4.00	475.00	1900.00
8	Foreman	Day	2.00	550.00	1100.00
9	mazdoor				
	for silo (cement handling)	Day	2.00	400.00	800.00
	for batching plant	Day	2.00	400.00	800.00
	for conveyor system	Day	2.00	400.00	800.00
	for laying & vibrating	Day	6.00	400.00	2400.00
	for cleaning / washing / curing	Day	2.00	400.00	800.00
10	Labour cost for shuttering	sqm	120.00	149.40	17928.00
Total cost of Labour				Rs: 43936.80	

labour component/unit qty 183.10

Add contractor's profit and overhead charges 13.615% 24.90

labour component/unit qty (including contractor's profit) **208.00****ABSTRACT:**

A. Cost of Materials Rs: 540692.64

B. Hire charges of Machinery Rs: 52638.80

C. Cost of Labour Rs: 43936.80

Total Rs: 637268.24

Add for conveyor system @ 3.00% 19118.05

Add for electric sub-station/ Demand charges @ 2.5% 15931.71

Add for trestle bridge for tower crane track @ 4.0% 25490.73

Total Rs: 697808.73

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 95006.66

Lead Charges for 1 Km for FA 96.00 cum @ 32.4 Rs./Cum 3110.4

Lead Charges for 1 Km for CA 216.00 cum @ 31.5 Rs./Cum 6804.00

Total cost for 240.00 cum Rs: **802729.79****Rate per cum (A+B+C+D)/240 Rs: **3344.70****

IRR-DAW-2-3

Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using 80 mm down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc..complete for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 220 kg /cum with use of super plasticiser, CA: 0.98 cum, Blending Ratio of CA -40:30:20:10, FA: 0.37 cum)

DATA:

RATE ANALYSIS

UNIT:

240.00 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	52800	3.88	204969.60
	Cement for incidentals @ 3 kg / cum	kg	720.00	3.88	2795.04
2	Coarse aggregate 80-40 mm	cum	94.08	622.00	58517.76
	Coarse aggregate 40-20 mm	cum	70.56	1133.00	79944.48
	Coarse aggregate 20-10 mm	cum	47.04	1182.00	55601.28
	Coarse aggregate 10 mm below	cum	23.52	860.00	20227.20
3	Fine aggregate (Un-Screened)	cum	88.8	100.00	8880.00
4	Super Plasticizer or AEA	kg	211.20	43.00	9081.60
5	Use rate of shuttering	sqm	120.00	330.10	39612.00
Total cost of Materials					Rs: 479628.96

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Batching plant 2 x 1.5 cum	Hour	8.00	505.00	4040.00
	Fuel / Energy charges	Hour	8.00	467.70	3741.60
2	Air compressor 7 cmm (ele)	Hour	8.00	107.30	858.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
3	Tipper	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Tower crane 5 t	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
5	Concrete bucket	Hour	40.00	12.90	516.00
	Fuel / Energy charges	Hour	40.00	0.00	0.00
6	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Needle vibrator 60 mm dia (ele)	Hour	16.00	7.90	126.40
	Fuel / Energy charges	Hour	16.00	12.80	204.80
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery					Rs: 52638.80

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for Tipper (4)	Hour	32.00	193.10	6179.20
4	Crew for Tower crane (2)	Hour	16.00	205.90	3294.40
5	Crew for Pump	Hour	8.00	91.70	733.60
6	Crew for Needle vibrator (2)	Hour	16.00	174.10	2785.60
7	Mason Class-I	Day	4.00	475.00	1900.00
8	Foreman	Day	2.00	550.00	1100.00
9	mazdoor				
	for silo (cement handling)	Day	2.00	400.00	800.00
	for batching plant	Day	2.00	400.00	800.00
	for conveyor system	Day	2.00	400.00	800.00
	for laying & vibrating	Day	6.00	400.00	2400.00
	for cleaning / washing / curing	Day	2.00	400.00	800.00
10	Labour cost for shuttering	sqm	120.00	149.40	17928.00
Total cost of Labour					Rs: 43936.80

labour component/unit qty 183.10

Add contractor's profit and overhead charges 13.615% 24.90

labour component/unit qty (including contractor's profit) **208.00****ABSTRACT:**

A. Cost of Materials	Rs:	479628.96
B. Hire charges of Machinery	Rs:	52638.80
C. Cost of Labour	Rs:	43936.80
Total	Rs:	576204.56
Add for conveyor system @	3.00%	17286.14
Add for electric sub-station/ Demand charges @	2.5%	14405.11
Add for trestle bridge for tower crane track @	4.0%	23048.18
Total	Rs:	630943.99
D. Add for contractor's profit and overheads on (A+B+C+other	13.615%	Rs. 85903.02
Lead Charges for 1 Km for FA	88.80 cum @	32.4 Rs./Cum 2877.12
Lead Charges for 1 Km for CA	235.20 cum @	31.5 Rs./Cum 7408.80
Total cost for	240.00 cum	Rs: 727132.93
Rate per cum	(A+B+C+D)/240	Rs: 3029.70

IRR-DAW-2-4

Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **RCC works of gallery, sluice, spillway crest, spillway d / s** face, energy dissipating structures, training walls, piers, abutments and such other locations with initial lead upto 1 km and all lifts.
(Cement content : 310 kg / cum with use of super plasticiser, CA : 0.90 cum, blending ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSIS

UNIT:

240.00 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	74400	3.88	288820.80
2	Cement for incidentals @ 3 kg / cum	kg	720.00	3.88	2795.04
	Coarse aggregate 40-20 mm	cum	108	1133.00	122364.00
	Coarse aggregate 20-10 mm	cum	64.8	1182.00	76593.60
	Coarse aggregate 10 mm below	cum	43.2	860.00	37152.00
3	Fine aggregate (Un-Screened)	cum	96	100.00	9600.00
4	Super Plasticizer or AEA	kg	297.60	43.00	12796.80
5	Use rate of shuttering	sqm	360.00	330.10	118836.00
6	Scaffolding of shuttering @	15%			17825.40
Total cost of Materials					Rs: 686783.64

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Batching plant 2 x 1.5 cum	Hour	8.00	505.00	4040.00
	Fuel / Energy charges	Hour	8.00	467.70	3741.60
2	Air compressor 7 cmm (ele)	Hour	8.00	107.30	858.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
3	Tipper	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Tower crane 5 t	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
5	Concrete bucket	Hour	40.00	12.90	516.00
	Fuel / Energy charges	Hour	40.00	0.00	0.00
6	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Needle vibrator 60 mm dia (ele)	Hour	16.00	7.90	126.40
	Fuel / Energy charges	Hour	16.00	12.80	204.80
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery					Rs: 52638.80

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for Tipper (4)	Hour	32.00	193.10	6179.20
4	Crew for Tower crane (2)	Hour	16.00	205.90	3294.40
5	Crew for Pump	Hour	8.00	91.70	733.60
6	Crew for Needle vibrator (2)	Hour	16.00	174.10	2785.60
7	Mason Class-I	Day	4.00	475.00	1900.00
8	Foreman	Day	2.00	550.00	1100.00
9	mazdoor				0.00
	for silo (cement handling)	Day	2.00	400.00	800.00
	for batching plant	Day	2.00	400.00	800.00
	for conveyor system	Day	2.00	400.00	800.00
	for laying & vibrating	Day	6.00	400.00	2400.00
	for cleaning / washing / curing	Day	2.00	400.00	800.00
10	Labour cost for shuttering	sqm	360.00	149.40	53784.00
11	Labour cost for scaffolding @	15%			8067.60
Total cost of Labour					Rs: 87860.40

labour component/unit qty 366.10

Add contractor's profit and overhead charges 13.615% 49.80

labour component/unit qty (including contractor's profit) **415.90****ABSTRACT:**

A. Cost of Materials

Rs: 686783.64

B. Hire charges of Machinery

Rs: 52638.80

C. Cost of Labour

Rs: 87860.40

Total

Rs: 827282.84

Add for aggregate conveyor system @

3.0%

24818.49

Add for electric sub-station / Demand charges @

2.50%

20682.07

Add for trestle bridge for tower crane track @

4.0%

33091.31

Total

Rs: 905874.71

D. Add for contractor's profit and overheads on (A+B+C+other

13.615%

Rs. 123334.84

Lead Charges for 1 Km for FA 96.00 cum @

32.4 Rs./Cum

3110.4

Lead Charges for 1 Km for CA 216.00 cum @

31.5 Rs./Cum

6804.00

Total cost for 240.00 cum

Rs: **1039123.95****Rate per cum (A+B+C+D)/240****Rs: 4329.70**IRR-DAW-2-4A
new Item2-2010-11

Providing and **laying insitu vibrated M-25** (28 days cube compressive strength not less than 25 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **RCC works of gallery, sluice, spillway crest, spillway d / s face**, energy dissipating structures, training walls, piers, abutments and such other locations **with initial lead upto 1 km and all lifts.**
(Cement content : 360 kg / cum with use of super plasticiser,
CA : 0.90 cum, blending ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSIS

UNIT:

240.00 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	86400	3.88	335404.80
2	Cement for incidentals @ 3 kg / cum	kg	720.00	3.88	2795.04
	Coarse aggregate 40-20 mm	cum	108	1133.00	122364.00
	Coarse aggregate 20-10 mm	cum	64.8	1182.00	76593.60
	Coarse aggregate 10 mm below	cum	43.2	860.00	37152.00
3	Fine aggregate (Un-Screened)	cum	96	100.00	9600.00
4	Super Plasticizer or AEA	kg	345.60	43.00	14860.80
5	Use rate of shuttering	sqm	360.00	330.10	118836.00
6	Scaffolding of shuttering @	15%			17825.40
Total cost of Materials					Rs: 735431.64

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Batching plant 2 x 1.5 cum	Hour	8.00	505.00	4040.00
	Fuel / Energy charges	Hour	8.00	467.70	3741.60
2	Air compressor 7 cmm (ele)	Hour	8.00	107.30	858.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
3	Tipper	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Tower crane 5 t	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
5	Concrete bucket	Hour	40.00	12.90	516.00
	Fuel / Energy charges	Hour	40.00	0.00	0.00
6	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Needle vibrator 60 mm dia (ele)	Hour	16.00	7.90	126.40
	Fuel / Energy charges	Hour	16.00	12.80	204.80
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery					Rs: 52638.80

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for Tipper (4)	Hour	32.00	193.10	6179.20
4	Crew for Tower crane (2)	Hour	16.00	205.90	3294.40
5	Crew for Pump	Hour	8.00	91.70	733.60
6	Crew for Needle vibrator (2)	Hour	16.00	174.10	2785.60
7	Mason Class-I	Day	4.00	475.00	1900.00
8	Foreman	Day	2.00	550.00	1100.00
9	mazdoor				0.00
	for silo (cement handling)	Day	2.00	400.00	800.00
	for batching plant	Day	2.00	400.00	800.00
	for conveyor system	Day	2.00	400.00	800.00
	for laying & vibrating	Day	6.00	400.00	2400.00
	for cleaning / washing / curing	Day	2.00	400.00	800.00
10	Labour cost for shuttering	sqm	360.00	149.40	53784.00
11	Labour cost for scaffolding @	15%			8067.60
Total cost of Labour					Rs: 87860.40

labour component/unit qty 366.10

Add contractor's profit and overhead charges 13.615% 49.80

labour component/unit qty (including contractor's profit) **415.90****ABSTRACT:**

A. Cost of Materials

Rs: 735431.64

B. Hire charges of Machinery

Rs: 52638.80

C. Cost of Labour

Rs: 87860.40

Total

Rs: 875930.84

Add for aggregate conveyor system @

3.0%

26277.93

Add for electric sub-station / Demand charges @

2.50%

21898.27

Add for trestle bridge for tower crane track @

4.0%

35037.23

Total

Rs: 959144.27

D. Add for contractor's profit and overheads on (A+B+C+other

13.615%

Rs. 130587.49

Lead Charges for 1 Km for FA 96.00 cum @

32.4 Rs./Cum

3110.4

Lead Charges for 1 Km for CA 216.00 cum @

31.5 Rs./Cum

6804.00

Total cost for 240.00 cum

Rs: **1099646.16****Rate per cum (A+B+C+D)/240****Rs: 4581.90**IRR-DAW-2-4B
new Item3-2010-11

Providing and **laying insitu vibrated M-25** (28 days cube compressive strength not less than 25 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **RCC works of gallery, sluice, spillway crest, spillway d / s** face, energy dissipating structures, training walls, piers, abutments and such other locations **with initial lead upto 1 km and all lifts.**
(Cement content : 380 kg / cum with use of super plasticiser,
CA : 0.90 cum, blending ratio of CA--65:35, FA : 0.40 cum)

DATA:

RATE ANALYSIS

					UNIT:
					240.00 cum
Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	91200	3.88	354038.40
2	Cement for incidentals @ 3 kg / cum	kg	720.00	3.88	2795.04
	Coarse aggregate 20-10 mm	cum	140.4	1182.00	165952.80
	Coarse aggregate 10 mm below	cum	75.6	860.00	65016.00
3	Fine aggregate (Un-Screened)	cum	96	100.00	9600.00
4	Super Plasticizer or AEA	kg	364.80	43.00	15686.40
5	Use rate of shuttering	sqm	360.00	330.10	118836.00
6	Scaffolding of shuttering @	15%			17825.40
Total cost of Materials					Rs: 749750.04

B. MACHINERY:					
Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Batching plant 2 x 1.5 cum	Hour	8.00	505.00	4040.00
	Fuel / Energy charges	Hour	8.00	467.70	3741.60
2	Air compressor 7 cmm (ele)	Hour	8.00	107.30	858.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
3	Tipper	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Tower crane 5 t	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
5	Concrete bucket	Hour	40.00	12.90	516.00
	Fuel / Energy charges	Hour	40.00	0.00	0.00
6	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Needle vibrator 60 mm dia (ele)	Hour	16.00	7.90	126.40
	Fuel / Energy charges	Hour	16.00	12.80	204.80
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery					Rs: 52638.80

C. LABOUR:					
Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for Tipper (4)	Hour	32.00	193.10	6179.20
4	Crew for Tower crane (2)	Hour	16.00	205.90	3294.40
5	Crew for Pump	Hour	8.00	91.70	733.60
6	Crew for Needle vibrator (2)	Hour	16.00	174.10	2785.60
7	Mason Class-I	Day	4.00	475.00	1900.00
8	Foreman	Day	2.00	550.00	1100.00
9	mazdoor				0.00
	for silo (cement handling)	Day	2.00	400.00	800.00
	for batching plant	Day	2.00	400.00	800.00
	for conveyor system	Day	2.00	400.00	800.00
	for laying & vibrating	Day	6.00	400.00	2400.00
	for cleaning / washing / curing	Day	2.00	400.00	800.00
10	Labour cost for shuttering	sqm	360.00	149.40	53784.00
11	Labour cost for scaffolding @	15%			8067.60
Total cost of Labour					Rs: 87860.40

labour component/unit qty	366.10
Add contractor's profit and overhead charges	13.615% 49.80
labour component/unit qty (including contractor's profit)	415.90

ABSTRACT:

A. Cost of Materials		Rs: 749750.04
B. Hire charges of Machinery		Rs: 52638.80
C. Cost of Labour		Rs: 87860.40
	Total	Rs: 890249.24
Add for aggregate conveyor system @	3.0%	26707.48
Add for electric sub-station / Demand charges @	2.50%	22256.23
Add for trestle bridge for tower crane track @	4.0%	35609.97
	Total	Rs: 974822.92
D. Add for contractor's profit and overheads on (A+B+C+other	13.615%	Rs: 132722.14
Lead Charges for 1 Km for FA	96.00 cum @	32.4 Rs./Cum 3110.4
Lead Charges for 1 Km for CA	216.00 cum @	31.5 Rs./Cum 6804.00
Total cost for	240.00 cum	Rs: 1117459.46
Rate per cum	(A+B+C+D)/240	Rs: 4656.10

IRR-DAW-2-5

Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 260 kg / cum with use of super plasticiser, CA : 0.90 cum, Blending Ratio of CA -- 50:30:20, FA : 0.40 cum)**

DATA:

RATE ANALYSISUNIT :
14.00 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	3640.00	3.88	14130.48
	Cement for incidentals @ 3 kg	kg	42.00	3.88	163.04
2	Coarse aggregate 40-20 mm	cum	6.3	1133.00	7137.90
	Coarse aggregate 20-10 mm	cum	3.78	1182.00	4467.96
	Coarse aggregate 10 mm below	cum	2.52	860.00	2167.20
3	Fine aggregate (Un-Screened)	cum	5.6	100.00	560.00
4	Super plasticizer	kg	14.56	43.00	626.08
5	Use rate of shuttering	sqm	14.00	220.06	3080.84
6	Use rate of scaffolding @	15%			462.13
Total cost of Materials					Rs: 32795.63

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.0	42.10	336.80
	Fuel / Energy charges	Hour	8.0	42.50	340.00
2	10 hp pump (ele)	Hour	1.0	5.50	5.50
	Fuel / Energy charges	Hour	1.0	85.00	85.00
3	Needle vibrator 40 mm dia (ele)	Hour	8.0	6.50	52.00
	Fuel / Energy charges	Hour	8.0	8.50	68.00
Total hire charges of Machinery					Rs: 887.30

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	mazdoor				
	for batching cement (cement handling	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.00	400.00	5600.00
	for cleaning / washing / curing	Day	1.00	400.00	400.00
6	Labour cost of shuttering	sqm	14.00	99.60	1394.40
7	Labour cost of scaffolding @	15%			209.16
Total cost of Labour					Rs: 18697.46

labour component/unit qty 1335.50

Add contractor's profit and overhead charges 13.615% 181.80

labour component/unit qty (including contractor's profit) **1517.30****ABSTRACT:**

A. Cost of Materials					Rs: 32795.63
B. Hire charges of Machinery					Rs: 887.30
C. Cost of Labour					Rs: 18697.46
					Rs: 52380.39
					Rs: 7131.59
D. Add for contractor's profit and overheads on (A+B+C)			13.615%		Rs: 7131.59
Lead Charges for 1 Km for FA	5.60	cum @		32.4 Rs./Cum	181.44
Lead Charges for 1 Km for CA	12.60	cum @		31.5 Rs./Cum	396.90
Total cost for	14.00	cum			Rs: 60090.32
Rate per cum		(A+B+C+D)/14			Rs: 4292.20

IRR-DAW-2-6

Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **with placing and sinking plums of size 150 to 80 mm upto 15 percent for gravity type structures** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 1 km and all lifts. (Cement content : 260 kg / cum of concrete with use of plums and super plasticiser of 0.4% of cement quantity, CA : 0.77 cum, Blending Ratio of CA : 50:30:20, FA : 0.34 cum, plums of size 150 to 80 mm : 0.25 cum)**

DATA:

RATE ANALYSISUNIT: **16.45 cum****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	4277	3.88	16603.31
	Cement for incidentals @ 3 kg / cum	kg	49.35	3.88	191.58
2	Coarse aggregate 40-20 mm	cum	6.33	1133.00	7171.89
	Coarse aggregate 20-10 mm	cum	3.8	1182.00	4491.60
	Coarse aggregate 10 mm below	cum	2.53	860.00	2175.80
3	Plums of size 150 to 80 mm	cum	4.11	333.00	1369.46
4	Fine aggregate (Un-Screened)	cum	5.59	100.00	559.30
5	Super Plasticizer	kg	17.11	43.00	735.64
6	Use rate of shuttering for 40 uses	sqm	16.45	220.06	3619.99
7	Scaffolding of shuttering @	15%			543.00
Total cost of Materials					Rs: 37461.57

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
3	Needle vibrator 60 mm dia (ele)	Hour	8.00	7.90	63.20
	Fuel / Energy charges	Hour	8.00	12.80	102.40
Total hire charges of Machinery				Rs:	932.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching cement (cement handling	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for loading plums	Day	1.00	400.00	400.00
	for laying concrete and plums	Day	4.00	400.00	1600.00
	for conveying concrete	Day	13.99	400.00	5594.41
	for conveying plums	Day	3.00	400.00	1200.00
	for cleaning / washing / curing	Day	1.00	400.00	400.00
7	Labour for shuttering	sqm	16.45	99.60	1638.42
8	Labour for scaffolding @	15%			245.76
Total cost of Labour				Rs:	21472.49

labour component/unit qty 1305.30

Add contractor's profit and overhead charges 13.615% 177.70

labour component/unit qty (including contractor's profit) **1483.00****ABSTRACT:**

A. Cost of Materials

Rs: 37461.57

B. Hire charges of Machinery

Rs: 932.90

C. Cost of Labour

Rs: 21472.49

Total

Rs: 59866.96

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 8150.89

Lead Charges for 1 Km for FA 5.59 cum @

32.4 Rs./Cum

181.2132

Lead Charges for 1 Km for CA and Plums 16.77 cum @

31.5 Rs./Cum

528.33

Total cost for 16.45 cum

Rs: **68727.40****Rate per cum (A+B+C+D)/16.45**Rs: **4178.00**

IRR-DAW-2-7

Providing and **laying insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **for plain concrete works with initial lead upto 1 km and all lifts. (Cement content 220 kg / cum with use of super plasticiser, CA : 0.90 cum, Blending Ratio of CA : 50:30:20, FA : 0.40 cum)**

DATA:

RATE ANALYSIS

UNIT:

16.53 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	3636.60	3.88	14117.28
	Cement for incidentals @ 3 kg/ cum	kg	49.59	3.88	192.51
2	Coarse aggregate 40-20 mm	cum	7.44	1133.00	8427.82
	Coarse aggregate 20-10 mm	cum	4.46	1182.00	5275.38
	Coarse aggregate 10 mm below	cum	2.98	860.00	2558.84
3	Fine aggregate (Un-Screened)	cum	6.61	100.00	661.20
4	Super plasticizer	kg	14.55	43.00	625.50
5	Use rate of shuttering	sqm	16.53	220.06	3637.59
6	Use rate of scaffolding @	15%			545.64
Total cost of Materials				Rs:	36041.76

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
3	Needle vibrator 40 mm dia (ele)	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
Total hire charges of Machinery				Rs:	887.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	mazdoor				
	for batching cement (cement handling	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	16.53	400.00	6612.00
	for cleaning / washing / curing	Day	1.00	400.00	400.00
6	Labour cost of shuttering	sqm	16.53	99.60	1646.39
7	Labour cost of scaffolding @	15%			246.96
Total cost of Labour				Rs: 19999.25	

labour component/unit qty 1209.90

Add contractor's profit and overhead charges 13.615% 164.70

labour component/unit qty (including contractor's profit) **1374.60****ABSTRACT:**

A. Cost of Materials

Rs: 36041.76

B. Hire charges of Machinery

Rs: 887.30

C. Cost of Labour

Rs: 19999.25

Total

Rs: 56928.31

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 7750.79

Lead Charges for 1 Km for FA

6.61

cum @

32.4 Rs./Cum

214.2288

Lead Charges for 1 Km for CA

14.88

cum @

31.5 Rs./Cum

468.63

Total cost for

16.53

cum

Rs: **65361.95****Rate per cum**

(A+B+C+D)/16.53

Rs: **3954.10**

IRR-DAW-2-8

Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **for plain concrete works with initial lead upto 1 km and all lifts. (Cement content : 280 kg / cum with use of super plasticiser, CA : 0.80 cum, Blending Ratio of CA -- 65:35, FA : 0.44 cum)**

DATA:

RATE ANALYSIS

UNIT:

15.87 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	4443.6	3.88	17250.06
	Cement for incidentals @ 3 kg/ cum	kg	47.61	3.88	184.82
2	Coarse aggregate 20-10 mm	cum	8.25	1182.00	9754.34
	Coarse aggregate 10 mm below	cum	4.44	860.00	3821.50
3	Fine aggregate (Un-Screened)	cum	6.98	100.00	698.28
4	Super plasticiser	kg	17.77	43.00	764.30
5	Use rate of shuttering	sqm	15.87	220.06	3492.35
6	Use rate of scaffolding @	15%			523.85
Total cost of Materials				Rs: 36489.50	

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
3	Needle vibrator 40 mm dia (ele)	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
Total hire charges of Machinery				Rs: 887.30	

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	mazdoor				
	for batching cement (cement handling	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.87	400.00	6348.00
	for cleaning / washing / curing	Day	1.00	400.00	400.00
6	Labour cost of shuttering	sqm	15.87	99.60	1580.65
7	Labour cost of scaffolding @	15%			237.10
Total cost of Labour				Rs: 19659.65	

labour component/unit qty 1238.80

Add contractor's profit and overhead charges 13.615% 168.70

labour component/unit qty (including contractor's profit) **1407.50**

ABSTRACT:

A. Cost of Materials					Rs: 36489.50
B. Hire charges of Machinery					Rs: 887.30
C. Cost of Labour					Rs: 19659.65
		Total			Rs: 57036.45
D. Add for contractor's profit and overheads on (A+B+C)			13.615%		Rs: 7765.51
Lead Charges for 1 Km for FA	6.98	cum @	32.4 Rs./Cum		226.24272
Lead Charges for 1 Km for CA	12.70	cum @	31.5 Rs./Cum		399.92
Total cost for	15.87		cum		Rs: 65428.13
Rate per cum		(A+B+C+D)/15.87			Rs: 4122.80

IRR-DAW-2-9

Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm** down size approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **for RCC works of spillway bridge, blockouts** and such other similar structures with congested reinforcement **with initial lead upto 1 km and all lifts. (Cement content : 330 kg / cum with use of super plasticiser, CA : 0.80 cum, Blending Ratio of CA -- 65:35, FA : 0.44 cum)**

DATA:

RATE ANALYSISUNIT:
13.47 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	4445.1	3.88	17255.88
	Cement for incidentals @ 3 kg/ cum	kg	40.41	3.88	156.87
2	Coarse aggregate 20-10 mm	cum	7.00	1182.00	8279.20
	Coarse aggregate 10 mm below	cum	3.77	860.00	3243.58
3	Fine aggregate (Un-Screened)	cum	5.93	100.00	592.68
4	Super plasticiser	ltr	17.78	43.00	764.56
5	Use rate of shuttering	sqm	33.68	220.06	7410.52
6	Scaffolding of shuttering @	100%			7410.52
Total cost of Materials					Rs: 45113.81

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
3	Needle vibrator 40 mm dia (ele)	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
Total hire charges of Machinery					Rs: 887.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	mazdoor				0.00
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	13.47	400.00	5388.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
6	Labour cost of shuttering	sqm	33.68	99.60	3354.03
7	Labour cost of scaffolding @	100%			3354.03
Total cost of Labour					Rs: 23589.96

labour component/unit qty 1751.30

Add contractor's profit and overhead charges 13.615% 238.40

labour component/unit qty (including contractor's profit) **1989.70****ABSTRACT:**

A. Cost of Materials					Rs: 45113.81
B. Hire charges of Machinery					Rs: 887.30
C. Cost of Labour					Rs: 23589.96
		Total			Rs: 69591.07
D. Add for contractor's profit and overheads on (A+B+C)			13.615%		Rs: 9474.82
Lead Charges for 1 Km for FA	5.93	cum @	32.4 Rs./Cum		192.02832
Lead Charges for 1 Km for CA	10.78	cum @	31.5 Rs./Cum		339.44
Total cost for	13.47		cum		Rs: 79597.36
Rate per cum		(A+B+C+D)/13.47			Rs: 5909.20

IRR-DAW-2-10

Providing and **forming porous concrete body drain of size 68.5 x 68.5 cm** with 23 cm diameter central hole using cement and 20 mm down approved, clean, hard, graded coarse aggregates in 1 : 3.50 proportion by volume including cost of all materials, machinery, labour, formwork, curing etc., complete **with initial lead upto 1 km and all lifts. (M15 Cement content : 400kg/cum, CA : 1cum, Blending Ratio of CA -- 65:35)**

DATA:

RATE ANALYSISUNIT:
20.00 Rm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	kg	3424	3.88	13291.97
2	Coarse aggregate 20-10 mm	cum	5.56	1182.00	6576.65
3	Coarse aggregate 10-4.75 mm	cum	3.00	860.00	2576.56
4	Use rate of shuttering	sqm	76.00	58.55	4450.15
Total cost of Materials					Rs: 26895.33

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	0.50	5.50	2.75
	Fuel / Energy charges	Hour	0.50	85.00	42.50
Total hire charges of Machinery					Rs: 722.05

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	91.70	45.85
3	Mason Class-I	Day	1.00	475.00	475.00
4	mazdoor				
	for batching cement (cement handling	Day	2.00	400.00	800.00
	for batching other materials	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	2.00	400.00	800.00
	for laying & packing concrete	Day	2.00	400.00	800.00
	for conveying concrete	Day	8.56	400.00	3424.00
5	Fitter shuttering	Day	3.00	440.00	1320.00
Total cost of Labour					Rs: 11999.25

labour component/unit qty 600.00

Add contractor's profit and overhead charges 13.615% 81.70

labour component/unit qty (including contractor's profit) **681.70****ABSTRACT:**

A. Cost of Materials

Rs: 26895.33

B. Hire charges of Machinery

Rs: 722.05

C. Cost of Labour

Rs: 11999.25

Total

Rs: 39616.63

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 5393.8

Lead Charges for 1 Km for CA

8.56 cum @

31.5 Rs./Cum

Rs: 269.64

Total cost for

20.00

Rm

Rs: **45280.07****Rate per****Rm**

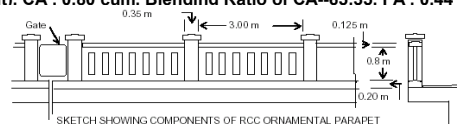
(A+B+C+D)/20

Rs: 2264.00

IRR-DAW-2-11

(a)

Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **RCC solid parapet consisting of 35 cm x 20 cm kerb**, 35 cm x 35 cm x 1 m pillars spaced approximately at 3.35 m c / c, 12.5 cm thick wall 80 cm height with 12.5 cm thick and 35 cm wide coping slab for wall and 12.5 cm thick 40 cm x 40 cm coping for pillars with top edges of kerb and coping chamfered / rounded as directed etc., **complete (excluding cost of providing and placing reinforcement steel and gate)** with initial lead upto 1 km and all lifts.
(Cement content 350 kg / cum with use of super plasticiser (0.4% by wt. of cement). CA : 0.80 cum. Blending Ratio of CA-65:35. FA : 0.44 cum)



SKETCH SHOWING COMPONENTS OF RCC ORNAMENTAL PARAPET

DATA:

RATE ANALYSISUNIT:
36.00 Rm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement mix	kg	3034.5	3.88	11779.93
	Cement for incidentals @ 5 kg / cum	kg	43.35	3.88	168.28
2	Coarse aggregate 20-10 mm	cum	4.51	1182.00	5330.82
	Coarse aggregate 10-4.75 mm	cum	2.43	860.00	2089.80
3	Fine aggregate (Un-Screened)	cum	3.81	100.00	381.00
4	Super plasticiser	kg	12.14	43.00	521.93
5	Use rate of shuttering	sqm	95.00	220.06	20905.70
6	Scaffolding of shuttering @	15%			3135.86
7	Sundries	LS	2.00	31.00	62.00
Total cost of Materials					Rs: 44375.32

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	Needle vibrator 40 mm (ele)	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
3	10 hp pump (ele)	Hour	0.50	5.50	2.75
	Fuel / Energy charges	Hour	0.50	85.00	42.50
Total hire charges of Machinery					Rs: 842.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	91.70	45.85
3	Crew for Vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	2.00	475.00	950.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing concrete	Day	2.00	400.00	800.00
	for conveying concrete	Day	8.67	400.00	3468.00
	for curing & miscellaneous	Day	2.00	400.00	800.00
7	Labour for shuttering	sqm	95.00	99.60	9462.00
8	Labour for scaffolding @	15%			1419.30
Total cost of Labour					Rs: 26772.35

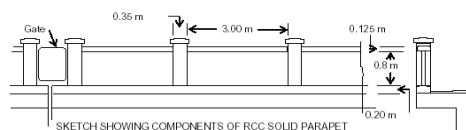
labour component/unit qty	743.70
Add contractor's profit and overhead charges	13.615% 101.30
labour component/unit qty (including contractor's profit)	845.00

ABSTRACT:

A. Cost of Materials				Rs: 44375.32
B. Hire charges of Machinery				Rs: 842.05
C. Cost of Labour				Rs: 26772.35
	Total			Rs: 71989.72
D. Add for contractor's profit and overheads on (A+B+C)		13.615%		Rs. 9801.4
Lead Charges for 1 Km for FA	3.81	cum @	32.4 Rs./Cum	123.444
Lead Charges for 1 Km for CA	6.94	cum @	31.5 Rs./Cum	218.61
Total cost for	36.00		Rm	Rs: 82133.17
Rate per Rm	(A+B+C+D)/36			Rs: 2281.50

IRR-DAW-2-12
(b)

Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates including cost of all materials, machinery, labour, formwork, centering, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete for **RCC ornamental parapet consisting of 35 cm x 20 cm kerb**, 35 cm x 35 cm x 1 m pillars spaced approximately at 3.5 m apart, 20 cm x 15 cm posts 80 cm height approximately 30 cm c / c with 12.5 cm thick and 35 cm wide coping slab for posts and pillars with top edges of kerb and coping chamfered or rounded as directed etc., **complete (excluding cost of providing and placing reinforcement steel and gate) with initial lead upto 1 km and all lifts.**
(Cement content : 350 kg / cum with use of super plasticiser(0.4% by wt. of cement, CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.44 cum)



DATA:

RATE ANALYSIS

UNIT:
36.00 Rm

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement mix	kg	2450	3.88	9510.90
	Cement for incidentals @ 5 kg / cum	kg	35.00	3.88	135.87
2	Coarse aggregate 20-10 mm	cum	3.64	1182.00	4302.48
	Coarse aggregate 10-4.75 mm	cum	1.96	860.00	1685.60
3	Fine aggregate (Un-Screened)	cum	3.08	100.00	308.00
4	Super plasticiser	kg	9.80	43.00	421.40
5	Use rate of shuttering	sqm	115.00	220.06	25306.90
6	Scaffolding of shuttering @	15%			3796.04
7	Sundries	LS	2.00	31.00	62.00
Total cost of Materials					Rs: 45529.19

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	Needle vibrator 40 mm (ele)	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
3	10 hp pump (ele)	Hour	0.50	5.50	2.75
	Fuel / Energy charges	Hour	0.50	85.00	42.50
Total hire charges of Machinery					Rs: 842.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	91.70	45.85
3	Crew for Vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	2.00	475.00	950.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching other materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing concrete	Day	2.00	400.00	800.00
	for conveying concrete	Day	7.00	400.00	2800.00
	for curing & miscellaneous	Day	2.00	400.00	800.00
7	Labour for shuttering	sqm	115.00	99.60	11454.00
8	Labour for scaffolding @	15%			1718.10
Total cost of Labour					Rs: 28395.15

labour component/unit qty 788.80

Add contractor's profit and overhead charges 13.615% 107.40

labour component/unit qty (including contractor's profit) **896.20****ABSTRACT:**

A. Cost of Materials

Rs: 45529.19

B. Hire charges of Machinery

Rs: 842.05

C. Cost of Labour

Rs: 28395.15

Total

Rs: 74766.39

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 10179.44

Lead Charges for 1 Km for FA

3.08

cum @

32.4 Rs./Cum

99.792

Lead Charges for 1 Km for CA

5.60

cum @

31.5 Rs./Cum

176.40

Total cost for

36.00

Rm

Rs: **85222.02****Rate per****Rm**

(A+B+C+D)/36

Rm

Rs: **2367.30**

IRR-DAW-2-13

Providing and **laying insitu M-25** (28 days cube compressive strength not less than 25 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates for wearing coat including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position in alternate panels, levelling, compacting, finishing, curing, packing joints with asphalt mortar etc., **complete with initial lead upto 1 km and all lifts.**

(Cement content : 380 kg / cum with use of super plasticiser(0.4% by wt. of cement, CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSIS

UNIT:

11.70 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mix	kg	4446	3.88	17259.37
	Cement for incidentals @ 5 kg / cum	kg	58.50	3.88	227.10
2	Coarse aggregate 20-10 mm	cum	6.084	1182.00	7191.29
	Coarse aggregate 10 mm below	cum	3.276	860.00	2817.36
3	Fine aggregate (Un-Screened)	cum	5.265	100.00	526.50
4	Super Plasticizer	kg	17.78	43.00	764.71
5	Use rate of shuttering	sqm	5.85	220.06	1287.35
6	Sundries (asphalt mortar etc)	LS	5.00	31.00	155.00
Total cost of Materials					Rs: 30228.68

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300/200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	0.50	5.50	2.75
	Fuel / Energy charges	Hour	0.50	85.00	42.50
Total hire charges of Machinery					Rs: 722.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	91.70	45.85
3	Mason Class-I	Day	3.00	475.00	1425.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching materials	Day	9.00	400.00	3600.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & compacting	Day	5.00	400.00	2000.00
	for conveying concrete	Day	11.70	400.00	4680.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
6	Labour cost for shuttering	sqm	5.85	99.60	582.66
Total cost of Labour				Rs:	17567.91

labour component/unit qty 1501.50

Add contractor's profit and overhead charges 13.615% 204.40

labour component/unit qty (including contractor's profit) **1705.90****ABSTRACT:**

A. Cost of Materials				Rs:	30228.68
B. Hire charges of Machinery				Rs:	722.05
C. Cost of Labour				Rs:	17567.91
				Rs:	48518.64
D. Add for contractor's profit and overheads on (A+B+C)				Rs:	6605.81
Lead Charges for 1 Km for FA	5.27	cum @	32.4 Rs./Cum		170.586
Lead Charges for 1 Km for CA	9.36	cum @	31.5 Rs./Cum		294.84
Total cost for	11.70	cum		Rs:	55589.88
Rate per cum	(A+B+C+D)/11.70			Rs:	4751.30

IRR-DAW-2-14

Pre-cooling to control placement temperature of cement concrete in the range of 18 to 21 C at the concrete placement point by inundation of coarse aggregates and adding flaked ice as part of mixing water including cost of all materials, machinery, labour etc., **complete with all leads and lifts.**

DATA:

RATE ANALYSISUNIT:
500 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sundries (amonia gas etc)	LS	3.00	31.00	93.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	93.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Ice maker unit consisting of: Compressor 125 hp - 1 No Condenser with 30 hp motor - 1 No. Ice makers 10 t / day each - 3 Nos. Pump 2 hp for ice cutting - 3 Nos. Pump 2 hp for pumping water-3 Nos. Screw conveyor with 15 hp motor -1 Ice elevator with 5 hp motor - 1 No. Fuel / Energy charges for system	Hour	24.00	155.70	3736.80
		Hour	24.00	1211.90	29085.60
Total hire charges of Machinery				Rs:	32822.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Ice maker unit	Hour	24.00	145.10	3482.40
2	mazdoor				
	for Ice chamber (2 x 3)	Day	6.00	400.00	2400.00
	for miscellaneous works (1 x 3)	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	7082.40

labour component/unit qty 14.20

Add contractor's profit and overhead charges 13.615% 1.90

labour component/unit qty (including contractor's profit) **16.10****ABSTRACT:**

A. Cost of Materials				Rs:	93.00
B. Hire charges of Machinery				Rs:	32822.40
C. Cost of Labour				Rs:	7082.40
				Rs:	39997.80
D. Add for contractor's profit and overheads on (A+B+C)				Rs:	5445.7
Total cost for	500.00 cum			Rs:	45443.50
Rate per cum	(A+B+C+D)/500			Rs:	90.90

IRR-DAW-2-15

Conveying and **fixing elastomeric bearing for spillway bridge** including cleaning and preparing surface, mixing and applying adhesive, fixing bearing in correct position etc., including cost of all materials except bearings, machinery, labour etc., **complete with all leads and lifts.**

DATA:

RATE ANALYSIS

UNIT:

6.00 Nos.**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Synthetic adhesive (Resin + Hardener)	kg	0.60	280.00	168.00
2	Sundries	LS	2.00	31.00	62.00
Total cost of Materials					Rs: 230.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Marker / Erector	Day	1.00	595.00	595.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 1895.00

labour component/unit qty 315.80

Add contractor's profit and overhead charges 13.615% 43.00

labour component/unit qty (including contractor's profit) **358.80****ABSTRACT:**

A. Cost of Materials

Rs: 230.00

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 1895.00

Total

Rs: 2125.00

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 289.32

Total cost for

6.00 Nos.

Rs: **2414.32****Rate per Each**

(A+B+C+D)/6

Rs: 402.40

IRR-DAW-2-16

Providing and **constructing 150 mm dia hume pipe weep holes for concrete / masonry walls** including providing 20 x 20 x 20 cm size porous concrete block made of cement and 20 mm down coarse aggregate in 1 : 4 proportion including 10 cm thick sand backing at the junction of wall and soil back fill, cost of all materials, machinery, labour etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT:

3.00 Rm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	150 mm dia hume pipe	Rm	2.90	233.00	675.70
2	Cement	kg	3.00	3.88	11.65
3	20 - 10 mm coarse aggregate	cum	0.01	1182.00	9.46
4	Sand for filling	cum	0.02	100.00	2.00
Total cost of Materials					Rs: 698.80

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Mason Class-II	Day	0.25	440.00	110.00
2	mazdoor	Day	0.25	400.00	100.00
Total cost of Labour					Rs: 210.00

labour component/unit qty 70.00

Add contractor's profit and overhead charges 13.615% 9.50

labour component/unit qty (including contractor's profit) **79.50****ABSTRACT:**

A. Cost of Materials

Rs: 698.80

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 210.00

Total

Rs: 908.80

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 123.73

Lead Charges for 1 Km for FA

0.02

cum @

32.4 Rs./Cum

0.648

Lead Charges for 1 Km for CA

0.01

cum @

31.5 Rs./Cum

0.25

Total cost for

3.00

Rm

Rs: **1033.43****Rate per Rm**

(A+B+C+D)/3

Rs: 344.50

IRR-DAW-2-17

Providing and **forming expansion joint for spillway bridge** consisting of 75 x 75 x 6 mm angles 2 numbers provided with 25 cm long 12 mm dia. anchors fixed to both flanges at 15 cm c/c and 140 x 6 mm plate welded on top of one of the angle including cost of all materials, machinery, labour, providing and fixing 38 mm thick joint filler board matching the thickness of wearing coat, painting etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT:

7.50 Rm**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Structural steel plate	kg	50.70	41.20	2088.84
2	Structural steel angle	kg	104.50	41.30	4315.85
3	12 dia steel anchors	kg	27.40	42.00	1150.80
4	Welding electrodes	Nos	70.00	11.00	770.00
5	Joint filler board 19 mm thick	sqm	1.00	489.00	489.00
6	Sundries (cutting gas / paint etc)	LS	1.50	31.00	46.50
Total cost of Materials					Rs: 8860.99

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Welding set	Hour	8.00	14.10	112.80
	Fuel / Energy charges	Hour	8.00	102.10	816.80
2	Sundries (cutting torch/ welding guns etc)	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 991.60

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Marker / Fabricator / Erector	Day	1.50	595.00	892.50
2	Gas cutter / Welder	Day	1.50	490.00	735.00
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 2427.50

labour component/unit qty

323.70

Add contractor's profit and overhead charges

13.615% 44.10

labour component/unit qty (including contractor's profit)

367.80**ABSTRACT:**

A. Cost of Materials

Rs: 8860.99

B. Hire charges of Machinery

Rs: 991.60

C. Cost of Labour

Rs: 2427.50

Total

Rs: 12280.09

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 1671.93

Lead Charges for 1Km for Steel (including Loading and Unloading Charges)

0.18 tonne @

190.3 Rs./Tonne

34.74878

Total cost for

7.50

Rm

Rs: **13986.77****Rate per****Rm**

(A+B+C+D)/7.50

Rs: 1864.90

IRR_DAW-3

MASONRY & GUNITING WORKS :

IRR-DAW-3-1

Providing and **constructing un-coursed rubble stone masonry** using approved stones in **cement mortar 1 : 3** proportion including cost of all materials, machinery, labour, scaffolding, cleaning, packing mortar, wedging stone chips, curing etc., complete **with initial lead upto 1 km and all lifts.**

(**Cement content : 190 kg/cum of masonry, rubble stones : 0.85 cum, stone chips : 0.15 cum/cum, FA : 0.4 cum**)

DATA:

RATE ANALYSIS

UNIT:

25.00 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mortar	kg	4750	3.88	18439.50
2	Rubble stones	cum	21.25	303.00	6438.75
3	Stone chips	cum	3.75	333.00	1248.75
4	Sand (Screened)	cum	10	182.00	1820.00
Total cost of Materials					Rs: 27947.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery					Rs: 767.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	work inspector	Day	1.00	500.00	500.00
4	Mason Class-I	Day	2.50	475.00	1187.50
5	Mason Class-II	Day	4.00	440.00	1760.00
6	Chavali	Day	16.00	440.00	7040.00
7	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching sand	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing mortar	Day	10.00	400.00	4000.00
	for loading chips	Day	1.00	400.00	400.00
	for washing rubble / finishing / curing	Day	4.00	400.00	1600.00
	for conveying mortar / chips	Day	12.00	400.00	4800.00
Total cost of Labour					Rs: 28113.60

labour component/unit qty	1124.50
Add contractor's profit and overhead charges	13.615% 153.10
labour component/unit qty (including contractor's profit)	1277.60

ABSTRACT:

A. Cost of Materials	Rs: 27947.00
B. Hire charges of Machinery	Rs: 767.30
C. Cost of Labour	Rs: 28113.60
Total	Rs: 56827.90
D. Add for contractor's profit and overheads on (A+B+C)	Rs: 7737.12
Lead Charges for 1 Km for FA	10.00 cum @ 32.4 Rs./Cum 324
Lead Charges for 1 Km for Stones/Stone Chips	25.00 cum @ 31.5 Rs./Cum 787.50
Total cost for	Rs: 65676.52
Rate per cum	(A+B+C+D)/25 Rs: 2627.10

IRR-DAW-3-2

Providing and constructing **un-coursed rubble stone masonry** using approved stones in **cement mortar 1 : 4** proportion including cost of all materials, machinery, labour, scaffolding, cleaning, packing mortar, wedging stone chips, curing etc., complete **with initial lead upto 1 km and all lifts.**
(Cement content : 143 kg/cum of masonry, rubble stones : 0.85 cum, stone chips : 0.15 cum/cum, FA : 0.4 cum)
For 1 cum masonry :-

DATA:

RATE ANALYSIS

					UNIT: 25.00 cum
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mortar	kg	3575	3.88	13878.15
2	Rubble stones	cum	21.25	303.00	6438.75
3	Stone chips	cum	3.75	333.00	1248.75
4	Sand (Screened)	cum	10	182.00	1820.00
Total cost of Materials					Rs: 23385.65

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr(ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery					Rs: 767.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	work inspector	Day	1.00	500.00	500.00
4	Mason Class-I	Day	2.50	475.00	1187.50
5	Mason Class-II	Day	4.00	440.00	1760.00
6	Chavali	Day	16.00	440.00	7040.00
7	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching sand	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing mortar	Day	10.00	400.00	4000.00
	for loading chips	Day	1.00	400.00	400.00
	for washing rubble / finishing / curing	Day	4.00	400.00	1600.00
	for conveying mortar / chips	Day	12.00	400.00	4800.00
Total cost of Labour					Rs: 28113.60

labour component/unit qty	1124.50
Add contractor's profit and overhead charges	13.615% 153.10
labour component/unit qty (including contractor's profit)	1277.60

ABSTRACT:

A. Cost of Materials	Rs: 23385.65
B. Hire charges of Machinery	Rs: 767.30
C. Cost of Labour	Rs: 28113.60
Total	Rs: 52266.55

D.Add for contractor's profit and overheads on (A+B+C)			13.615%	Rs. 7116.09
Lead Charges for 1 Km for FA	10.00	cum @	32.4 Rs./Cum	324
Lead Charges for 1 Km for Stones/Stone Chips	25.00	cum @	31.5 Rs./Cum	787.50
Total cost for	25.00	cum		Rs: 60494.14
Rate per cum	(A+B+C+D)/25			Rs: 2419.80

IRR-DAW-3-3

Providing and **constructing** coursed rubble face stone masonry using approved rubble stones in **cement mortar 1 : 3** proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., **with initial lead upto 1 km and all lifts.**

(Thickness of the CR face assumed: 0.75 m,Cement content : 178 kg/cum of masonry,

rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.375 cum,

CR stones 30 x 30 x 45 cm : 9.75 No, CR stones 30 x 30 x 60 cm : 3.25 No)

DATA:

RATE ANALYSIS

UNIT:

25.00 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mortar	kg	4450	3.88	17274.90
2	Coursed rubble stone 30 x 30 x 45 cm	Nos	244	23.00	5612.00
3	Coursed rubble stone 30 x 30 x 60 cm	Nos	82	26.00	2132.00
4	Rubble stones	cum	8.75	303.00	2651.25
5	Stone chips	cum	3.75	333.00	1248.75
6	Sand (Screened)	cum	9.375	182.00	1706.25
Total cost of Materials					Rs: 30625.15

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
2	Fuel / Energy charges	Hour	8.00	42.50	340.00
	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery					Rs: 767.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	work inspector	Day	1.00	500.00	500.00
4	Stone chiseller CI -II	Day	7.00	440.00	3080.00
5	Mason Class-I	Day	2.50	475.00	1187.50
6	Mason Class-II	Day	4.00	440.00	1760.00
7	Chavali	Day	16.00	440.00	7040.00
8	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching sand	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing mortar	Day	10.00	400.00	4000.00
	for loading chips	Day	1.00	400.00	400.00
	for washing rubble / finishing / curing	Day	4.00	400.00	1600.00
	for conveying mortar / chips	Day	12.00	400.00	4800.00
Total cost of Labour					Rs: 31193.60

labour component/unit qty 1247.70

Add contractor's profit and overhead charges 13.615% 169.90

labour component/unit qty (including contractor's profit) **1417.60****ABSTRACT:**

A. Cost of Materials

Rs: 30625.15

B. Hire charges of Machinery

Rs: 767.30

C. Cost of Labour

Rs: 31193.60

Total

Rs: 62586.05

D.Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs. 8521.09

Lead Charges for 1 Km for FA

9.38

cum @

32.4 Rs./Cum

303.75

Lead Charges for 1 Km for Stones/Stone Chips

26.81

cum @

31.5 Rs./Cum

844.52

Total cost for

25.00

cum

Rs: **72255.41****Rate per cum**

(A+B+C+D)/25

Rs: **2890.20**

IRR-DAW-3-4

Providing and **constructing** coursed rubble face stone masonry using approved rubble stones in **cement mortar 1 : 4** proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., **with initial lead upto 1 km and all lifts.**

(Cement content : 134 kg/cum of masonry, rubble stones : 0.35 cum,

stone chips : 0.15 cum/cum, FA : 0.375 cum,

CR stones 30 x 30 x 45 cm : 9.75 No, CR stones 30 x 30 x 60 cm : 3.25 No)

DATA:

RATE ANALYSISUNIT:
25.00 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mortar	kg	3350	3.88	13004.70
2	Coursed rubble stone 30 x 30 x 45 cm	Nos	244	23.00	5612.00
3	Coursed rubble stone 30 x 30 x 60 cm	Nos	82	26.00	2132.00
4	Rubble stones	cum	8.75	303.00	2651.25
5	Stone chips	cum	3.75	333.00	1248.75
6	Sand (Screened)	cum	9.375	182.00	1706.25
Total cost of Materials					Rs: 26354.95

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery					Rs: 767.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	work inspector	Day	1.00	500.00	500.00
4	Stone chiseller CI -II	Day	7.00	440.00	3080.00
5	Mason Class-I	Day	2.50	475.00	1187.50
6	Mason Class-II	Day	4.00	440.00	1760.00
7	Chavali	Day	16.00	440.00	7040.00
8	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching sand	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing mortar	Day	10.00	400.00	4000.00
	for loading chips	Day	1.00	400.00	400.00
	for washing rubble / finishing / curing	Day	4.00	400.00	1600.00
	for conveying mortar / chips	Day	12.00	400.00	4800.00
Total cost of Labour					Rs: 31193.60

labour component/unit qty 1247.70

Add contractor's profit and overhead charges 13.615% 169.90

labour component/unit qty (including contractor's profit) **1417.60****ABSTRACT:**

A. Cost of Materials					Rs: 26354.95
B. Hire charges of Machinery					Rs: 767.30
C. Cost of Labour					Rs: 31193.60
					Rs: 58315.85
					Rs: 7939.7
D. Add for contractor's profit and overheads on (A+B+C)					Rs: 7939.7
Lead Charges for 1 Km for FA	9.38	cum @		32.4 Rs./Cum	303.75
Lead Charges for 1 Km for Stones/Stone Chips	26.81	cum @		31.5 Rs./Cum	844.52
Total cost for	25.00	cum			Rs: 67403.82
Rate per cum		(A+B+C+D)/25			Rs: 2696.20

IRR-DAW-3-5

Providing and **constructing chisel drafted and hammer dressed face stone masonry** with approved stones in **cement mortar 1 : 3** proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., complete with **initial lead upto 1 km and all lifts.**
(Cement content : 167 kg/cum of masonry, rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.35 cum,
Dressed stones 30 x 30 x 45 cm : 10 No, Dressed stones 30 x 30 x 60 cm : 3.40 No)

DATA:

RATE ANALYSISUNIT:
25.00 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mortar	kg	4175	3.88	16207.35
2	Coursed rubble stone 30 x 30 x 45 cm	Nos	250	23.00	5750.00
3	Coursed rubble stone 30 x 30 x 60 cm	Nos	85	26.00	2210.00
4	Rubble stones	cum	8.75	303.00	2651.25
5	Stone chips	cum	3.75	333.00	1248.75
6	Sand (Screened)	cum	8.75	182.00	1592.50
Total cost of Materials					Rs: 29659.85

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery					Rs: 767.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	work inspector	Day	1.00	500.00	500.00
4	Stone chiseller CI -I	Day	14.00	490.00	6860.00
5	Stone chiseller CI -II	Day	7.00	440.00	3080.00
6	Mason Class-I	Day	2.50	475.00	1187.50
7	Mason Class-II	Day	4.00	440.00	1760.00
8	Chavali	Day	16.00	440.00	7040.00
9	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching sand	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing mortar	Day	10.00	400.00	4000.00
	for loading chips	Day	1.00	400.00	400.00
	for washing rubble / finishing / curing	Day	4.00	400.00	1600.00
	for conveying mortar / chips	Day	12.00	400.00	4800.00
Total cost of Labour					Rs: 38053.60
labour component/unit qty			1522.10		
Add contractor's profit and overhead charges			13.615%	207.20	
labour component/unit qty (including contractor's profit)				1729.30	

ABSTRACT:

A. Cost of Materials					Rs: 29659.85
B. Hire charges of Machinery					Rs: 767.30
C. Cost of Labour					Rs: 38053.60
	Total				Rs: 68480.75
D. Add for contractor's profit and overheads on (A+B+C)			13.615%		Rs: 9323.65
Lead Charges for 1 Km for FA	8.75	cum @	32.4 Rs./Cum		283.5
Lead Charges for 1 Km for Stones/Stone Chips	27.22	cum @	31.5 Rs./Cum		857.27
Total cost for	25.00	cum			Rs: 78945.17
Rate per	cum	(A+B+C+D)/25			Rs: 3157.80

IRR-DAW-3-6

Providing and **constructing chisel drafted and hammer dressed face stone masonry** with approved stones in **cement mortar 1 : 4** proportion including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, curing etc., complete with **initial lead upto 1 km and all lifts.**
(Cement content : 125 kg/cum of masonry, rubble stones : 0.35 cum, stone chips : 0.15 cum/cum, FA : 0.35 cum,
Dressed stones 30 x 30 x 45 cm : 10 No, Dressed stones 30 x 30 x 60 cm : 3.40 No)

DATA:

RATE ANALYSIS**A. MATERIALS:**UNIT:
25.00 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement for mortar	kg	3125	3.88	12131.25
2	Coursed rubble stone 30 x 30 x 45 cm	Nos	250	23.00	5750.00
3	Coursed rubble stone 30 x 30 x 60 cm	Nos	85	26.00	2210.00
4	Rubble stones	cum	8.75	303.00	2651.25
5	Stone chips	cum	3.75	333.00	1248.75
6	Sand (Screened)	cum	8.75	182.00	1592.50
Total cost of Materials					Rs: 25583.75

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 ltr (ele)	Hour	8.00	42.10	336.80
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery					Rs: 767.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	1.00	91.70	91.70
3	work inspector	Day	1.00	500.00	500.00
4	Stone chiseller CI -I	Day	14.00	490.00	6860.00
5	Stone chiseller CI -II	Day	7.00	440.00	3080.00
6	Mason Class-I	Day	2.50	475.00	1187.50
7	Mason Class-II	Day	4.00	440.00	1760.00
8	Chavali	Day	16.00	440.00	7040.00
9	mazdoor				
	for batching cement (cement handling)	Day	2.00	400.00	800.00
	for batching sand	Day	6.00	400.00	2400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying & packing mortar	Day	10.00	400.00	4000.00
	for loading chips	Day	1.00	400.00	400.00
	for washing rubble / finishing / curing	Day	4.00	400.00	1600.00
	for conveying mortar / chips	Day	12.00	400.00	4800.00
Total cost of Labour					Rs: 38053.60
labour component/unit qty			1522.10		
Add contractor's profit and overhead charges			13.615%	207.20	
labour component/unit qty (including contractor's profit)				1729.30	

ABSTRACT:

A. Cost of Materials						Rs: 25583.75
B. Hire charges of Machinery						Rs: 767.30
C. Cost of Labour						Rs: 38053.60
						Rs: 64404.65
						Rs: 8768.69
D. Add for contractor's profit and overheads on (A+B+C)				13.615%		Rs: 283.5
Lead Charges for 1 Km for FA	8.75	cum @			32.4 Rs./Cum	283.5
Lead Charges for 1 Km for Stones/Stone Chips	27.22	cum @			31.5 Rs./Cum	857.27
Total cost for	25.00			cum		Rs: 74314.11
Rate per	cum		(A+B+C+D)/25			Rs: 2972.60

IRR-DAW-3-7

Providing **cement mortar pointing to coursed rubble face stone masonry**
50 mm deep in **CM 1 : 2** proportion by volume including raking and cleaning joints, pressing mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT:

100.00 sqm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	kg	455.446	3.88	1768.04
2	Sand (Screened)	cum	0.735	182.00	133.77
Total cost of Materials					Rs: 1901.81

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Mason Class-I	Day	10.00	475.00	4750.00
2	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour					Rs: 8750.00

labour component/unit qty	87.50
Add contractor's profit and overhead charges	13.615% 11.90
labour component/unit qty (including contractor's profit)	99.40

ABSTRACT:

A. Cost of Materials						Rs: 1901.81
B. Hire charges of Machinery						Rs: 0.00
C. Cost of Labour						Rs: 8750.00
						Rs: 10651.81
						Rs: 1450.24
D. Add for contractor's profit and overheads on (A+B+C)				13.615%		Rs: 23.814
Lead Charges for 1 Km for FA	0.74	cum @			32.4 Rs./Cum	23.814
Total cost for	100.00			sqm		Rs: 12125.87
Rate per	sqm		(A+B+C+D)/100			Rs: 121.30

IRR-DAW-3-8

Providing **cement mortar pointing to coursed rubble face stone masonry**
50 mm deep in **CM 1 : 3** proportion by volume including raking and cleaning joints, pressing mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT:

100.00 sqm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	kg	321.80	3.88	1249.23
2	Sand (Screened)	cum	0.74	182.00	133.77
Total cost of Materials					Rs: 1383.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Mason Class-I	Day	10.00	475.00	4750.00
2	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour					Rs: 8750.00

labour component/unit qty	87.50
Add contractor's profit and overhead charges	13.615% 11.90
labour component/unit qty (including contractor's profit)	99.40

ABSTRACT:

A. Cost of Materials						Rs: 1383.00
B. Hire charges of Machinery						Rs: 0.00
C. Cost of Labour						Rs: 8750.00
				Total		Rs: 10133.00
D. Add for contractor's profit and overheads on (A+B+C)					13.615%	Rs: 1379.61
Lead Charges for 1 Km for FA	0.74	cum @			32.4 Rs./Cum	23.814
Total cost for	100.00					Rs: 11536.42
Rate per	sqm			(A+B+C+D)/100		Rs: 115.40

IRR_DAW-4

CONTRACTION JOINT WORKS:

IRR-DAW-4-1

Providing **25 mm thick guniting to rock or masonry surface in cement mortar 1 : 3** proportion by weight including cost of all materials, machinery, labour, raking-out and cleaning joints, scaffolding wherever required and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.

DATA:

RATE ANALYSISUNIT :
36.00 sqm**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	kg	609.90	3.88	2367.63
2	Sand (Screened)	cum	1.09	182.00	198.38
3	Use rate of grout hose 25 m	Hour	8.00	5.13	41.00
4	Use rate of water hose 25 m	Hour	8.00	5.16	41.25
5	Use rate of guniting nozzle	Hour	8.00	3.10	24.80
6	Sundries	LS	2.00	31.00	62.00
Total cost of Materials					Rs: 2735.06

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Guniting equipment	Hour	8.00	97.70	781.60
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	Air compressor 8.5 cmm (ele)	Hour	8.00	139.00	1112.00
	Fuel / Energy charges	Hour	8.00	478.40	3827.20
3	Pump 10 hp (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
4	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 5873.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Guniting equipment	Hour	8.00	241.80	1934.40
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for pump	Hour	1.00	91.70	91.70
4	Mason Cl II	Day	1.00	440.00	440.00
5	mazdoor				
	for cement handling	Day	2.00	400.00	800.00
	for sand	Day	2.00	400.00	800.00
	mazdoor for other works	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 6317.30

labour component/unit qty	175.50
Add contractor's profit and overhead charges	13.615% 23.90
labour component/unit qty (including contractor's profit)	199.40

ABSTRACT:

A. Cost of Materials						Rs: 2735.06
B. Hire charges of Machinery						Rs: 5873.30
C. Cost of Labour						Rs: 6317.30
				Total		Rs: 14925.66
Add for scaffolding		3%				373.14
				Total		Rs: 15298.80
D. Add for contractor's profit and overheads on (A+B+C+other					13.615%	Rs: 2082.93
Lead Charges for 1 Km for FA	1.09	cum @			32.4 Rs./Cum	35.316
Total cost for	36.00				sqm	Rs: 17417.05
Rate per	sqm			(A+B+C+D)/36		Rs: 483.80

IRR-DAW-4-2

Providing and **constructing contraction joints by fixing 16 SWG 60 cm wide annealed copper sheets** in two lines with 8 mm dia steel dowel rods on either side at one metre interval, forming 125 x 125 mm size groove in between copper strips for filling asphalt including fixing 15 mm dia two legged G.I pipe with U - bend at bottom for circulation of steam at intervals and forming 150 mm dia formed drain behind water seals including cost of all materials, machinery, labour, filling asphalt, circulation of steam through pipes etc., complete with all leads and lifts. consider 12 m height of contraction joint for analysis.

DATA:

RATE ANALYSIS

UNIT:
12.00 Rm

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Copper sheet 16 SWG	kg	215.00	606.00	130290.00
2	Reinforcement steel 8 mm dia	kg	30.00	42.00	1260.00
3	GI pipe 15 mm dia	Rm	24.00	80.00	1920.00
4	Asphalt	kg	192.00	39.00	7488.00
5	Elbows / Nipple / Plugs etc.,	LS	5.00	15.00	75.00
6	Soldering materials	LS	40.00	15.00	600.00
Total cost of Materials				Rs:	141633.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Steam circulation arrangement	LS	8.00	15.00	120.00
	Fuel charges (gas for heating)	LS	10.00	17.00	170.00
Total hire charges of Machinery				Rs:	290.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Welder	Day	1.00	490.00	490.00
2	Tinsmith	Day	1.00	475.00	475.00
3	Bar bender	Day	0.50	600.00	300.00
4	Pipe fitter	Day	0.50	550.00	275.00
5	Mason Class-I	Day	0.50	475.00	237.50
6	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	2177.50

labour component/unit qty	181.50
Add contractor's profit and overhead charges	13.615% 24.70
labour component/unit qty (including contractor's profit)	206.20

ABSTRACT:

A. Cost of Materials		Rs: 141633.00
B. Hire charges of Machinery		Rs: 290.00
C. Cost of Labour		Rs: 2177.50
	Total	Rs: 144100.50
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 19619.28
Total cost for	12.00 Rm	Rs: 163719.78
Rate per Rm	(A+B+C+D)/12	Rs: 13643.30

IRR-DAW-4-3

Providing and constructing contraction joints by fixing 310 mm wide central bulb type approved quality PVC water stop in two lines with 8 mm diameter steel dowel rods on either side at 1m interval, forming 125 x 125 mm size groove in between two water stops, providing & fixing 15 mm dia two legged G.I pipe with U-bend at bottom for circulation steam at interval, forming 150 mm diameter formed drain behind water seals including filling groove with asphalt, circulation of steam at intervals, cost of all materials, machinery, labour etc., complete with all leads and lifts.

DATA:

RATE ANALYSIS

UNIT:
12.00 Rm.

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	PVC water stops 310 mm wide	Rm	24.50	398.00	9751.00
2	Reinforcement steel 8 mm dia	kg	30.00	42.00	1260.00
3	GI pipe 15 mm dia	Rm	24.00	80.00	1920.00
4	Asphalt	kg	192.00	39.00	7488.00
5	Elbows / Nipple / Plugs etc.,	LS	5.00	15.00	75.00
6	Vulcanizing materials	LS	25.00	18.00	450.00
Total cost of Materials				Rs:	20944.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Steam circulation arrangement	LS	8.00	15.00	120.00
	Fuel charges (gas for heating)	LS	10.00	17.00	170.00
Total hire charges of Machinery				Rs:	290.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Welder	Day	0.50	490.00	245.00
2	Bar bender	Day	0.50	600.00	300.00
3	Pipe fitter	Day	0.50	550.00	275.00
4	Mason Class-I	Day	0.50	475.00	237.50
5	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	1457.50

labour component/unit qty	121.50
Add contractor's profit and overhead charges	13.615% 16.50
labour component/unit qty (including contractor's profit)	138.00

ABSTRACT:

A. Cost of Materials					Rs: 20944.00
B. Hire charges of Machinery					Rs: 290.00
C. Cost of Labour					Rs: 1457.50
				Total	Rs: 22691.50
D. Add for contractor's profit and overheads on (A+B+C)				13.615%	Rs: 3089.45
Total cost for		12.00 Rm.			Rs: 25780.95
Rate per	Rm.	(A+B+C+D)/12			Rs: 2148.40

IRR-DAW-4-4

Providing and **constructing contraction joints by fixing 16 SWG 60 cm wide annealed copper sheets** in single line with 8 mm dia steel dowel rods on either side at 1 metre interval including cost of all materials, machinery, labour etc., **complete with all leads and lifts.**

DATA:

RATE ANALYSIS

UNIT:

8.7 Rm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Copper sheet 16 SWG	kg	77.00	606.00	46662.00
2	Reinforcement steel 8 mm dia	kg	15.00	42.00	630.00
3	Soldering materials	LS	10.00	15.00	150.00
Total cost of Materials					Rs: 47442.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sundries such as soldering gun etc.,	LS	3.00	31.00	93.00
	Fuel charges (gas)	LS	5.00	17.00	85.00
Total hire charges of Machinery					Rs: 178.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Welder	Day	0.5	490.00	245.00
2	Tinsmith	Day	0.5	475.00	237.50
3	Bar bender	Day	0.5	600.00	300.00
4	Mason Class-I	Day	0.5	475.00	237.50
5	mazdoor	Day	0.5	400.00	200.00
Total cost of Labour					Rs: 1220.00

labour component/unit qty	140.20
Add contractor's profit and overhead charges	13.615% 19.10
labour component/unit qty (including contractor's profit)	159.30

ABSTRACT:

A. Cost of Materials					Rs: 47442.00
B. Hire charges of Machinery					Rs: 178.00
C. Cost of Labour					Rs: 1220.00
				Total	Rs: 48840.00
D. Add for contractor's profit and overheads on (A+B+C)				13.615%	Rs: 6649.57
Total cost for		8.70 Rm			Rs: 55489.57
Rate per	Rm	(A+B+C+D)/8.70			Rs: 6378.10

IRR-DAW-4-5

Providing and **constructing contraction joints by fixing 23 cm wide central bulb type PVC water stop in single line** supported by 10 mm dia steel dowel rods on either side at 1 metre interval including cost of all materials, machinery, labour, vulcanising joints etc., **complete with all leads and lifts.**

DATA:

RATE ANALYSIS

UNIT:

8.70 Rm**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	PVC water seal 23 cm wide	Rm	9.00	38.00	342.00
2	Reinforcement steel 10 mm dia	kg	10.00	42.00	420.00
3	Vulcanising materials	LS	2.00	18.00	36.00
Total cost of Materials					Rs: 798.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sundries such as heater etc.,	LS	0.50	31.00	15.50
	Fuel charges for heating	LS	0.50	17.00	8.50
Total hire charges of Machinery					24.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Welder	Day	0.50	490.00	245.00
2	Bar bender	Day	0.50	600.00	300.00
3	Mason Class-I	Day	0.50	475.00	237.50
4	mazdoor	Day	0.50	400.00	200.00
Total cost of Labour					Rs: 982.50

labour component/unit qty	112.90
Add contractor's profit and overhead charges	13.615% 15.40
labour component/unit qty (including contractor's profit)	128.30

ABSTRACT:

A. Cost of Materials						Rs: 798.00
B. Hire charges of Machinery						Rs: 24.00
C. Cost of Labour						Rs: 982.50
					Total	Rs: 1804.50
D. Add for contractor's profit and overheads on (A+B+C)				13.615%		Rs: 245.68
Total cost for		8.70 Rm				Rs: 2050.18
Rate per	Rm	(A+B+C+D)/8.70				Rs: 235.70

IRR_DAW-5

EARTH / ROCKFILL EMBANKMENT WORKS :

IRR-DAW-5-1

Providing **heating embankment** using selected **impervious soil** from **approved borrow areas** in **layers of 25 to 30 cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil in layer of specified thickness, breaking clods, sectioning, **watering**, compacting to density control of **not less than 95 percent** or as stipulated using **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

					UNIT 825.00 cum	
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs	
1	NIL		0.00		0.00	0.00
			0.00		0.00	0.00
Total cost of Materials					Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs	
1	Angle dozer 90 hp	Hour	5.50	1395.70	7676.35	
	Fuel / Energy charges	Hour	5.50	801.50	4408.25	
2	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00	
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60	
3	Tipplers 5.00 cum capacity 5 Nos.	Hour	40.00	363.50	14540.00	
	Fuel / Energy charges	Hour	40.00	393.70	15748.00	
4	Pump 5 hp (ele)	Hour	4.00	2.40	9.60	
	Fuel / Energy charges	Hour	4.00	42.50	170.00	
5	Water tanker 8000 ltr	Hour	8.00	359.00	2872.00	
	Fuel / Energy charges	Hour	8.00	393.70	3149.60	
6	Vibratory Roller 8 tonne	Hour	6.50	1092.00	7098.00	
	Fuel / Energy charges	Hour	6.50	1354.00	8801.00	
7	Sundries	LS	2.00	31.00	62.00	
Total hire charges of Machinery					Rs:	84808.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs	
1	Crew for Dozer	Hour	5.50	257.40	1415.70	
2	Crew for Shovel	Hour	8.00	257.40	2059.20	
3	Crew for Tipper	Hour	40.00	193.10	7724.00	
4	Crew for Pump	Hour	4.00	91.70	366.80	
5	Crew for Water tanker	Hour	8.00	193.10	1544.80	
6	Crew for Roller	Hour	6.50	290.20	1886.30	
7	work inspector	Day	2.00	500.00	1000.00	
8	mazdoor	Day	4.00	400.00	1600.00	
Total cost of Labour					Rs:	17596.80

labour component/unit qty	21.30
Add contractor's profit and overhead charges	13.615% 2.90
labour component/unit qty (including contractor's profit)	24.20

ABSTRACT:

A. Cost of Materials						Rs: 0.00
B. Hire charges of Machinery						Rs: 84808.40
C. Cost of Labour						Rs: 17596.80
					Total	Rs: 102405.20
D. Add for contractor's profit and overheads on (A+B+C)				13.615%		Rs: 13942.47
Total cost for		825.00 cum				Rs: 116347.67
Rate per	cum	(A+B+C+D)/825				Rs: 141.00

IRR-DAW-5-2

Providing **cut-off trench filling** using selected **impervious soil** from **approved borrow areas** in **layers of 25 to 30 cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil to specified thickness, breaking clods, sectioning, **watering**, compacting to density control of **not less than 95 percent** using **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller** as stipulated etc., **complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

825.00 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	5.50	1395.70	7676.35
	Fuel / Energy charges	Hour	5.50	801.50	4408.25
2	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
3	Tipplers 5.00 cum capacity 6 Nos.	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (ele)	Hour	4.00	2.40	9.60
	Fuel / Energy charges	Hour	4.00	42.50	170.00
5	Water tanker 8000 ltr	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
6	Vibratory Roller 8 tonne	Hour	6.50	1092.00	7098.00
	Fuel / Energy charges	Hour	6.50	1354.00	8801.00
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	90866.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	5.50	257.40	1415.70
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	4.00	91.70	366.80
5	Crew for Water tanker	Hour	8.00	193.10	1544.80
6	Crew for Roller	Hour	6.50	290.20	1886.30
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	19141.60

labour component/unit qty 23.20

Add contractor's profit and overhead charges 13.615% 3.20

labour component/unit qty (including contractor's profit) **26.40****ABSTRACT:**

A. Cost of Materials

Rs: 0.00

B. Hire charges of Machinery

Rs: 90866.00

C. Cost of Labour

Rs: 19141.60

Total

Rs: 110007.60

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs. 14977.53

Total cost for 825.00 cum

Rs: **124985.13****Rate per cum** (A+B+C+D)/825Rs: **151.50**

IRR-DAW-5-3

Providing casing embankment using semi-pervious soil from approved borrow areas in layers of 25 to 30 cm before compaction including cost of all materials, machinery, labour, all other operations such as excavation, sorting out, transportation, spreading soil in layers of specified thickness, breaking clods, sectioning, watering, compacting to density control of not less than 95 percent using Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller as stipulated etc., complete with initial lead upto 1 km and all lifts.

DATA:

RATE ANALYSIS

UNIT :

630 cum**A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	4.00	1395.70	5582.80
	Fuel / Energy charges	Hour	4.00	801.50	3206.00
2	Shovel 0.85 cum	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
3	Tipper 5 cum	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (ele)	Hour	3.00	2.40	7.20
	Fuel / Energy charges	Hour	3.00	42.50	127.50
5	Water tanker 8000 ltr	Hour	5.00	359.00	1795.00
	Fuel / Energy charges	Hour	5.00	393.70	1968.50
6	Vibratory Roller 8 tonne	Hour	5.00	1092.00	5460.00
	Fuel / Energy charges	Hour	5.00	1354.00	6770.00
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	69576.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	4.00	257.40	1029.60
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	3.00	91.70	275.10
5	Crew for Water tanker	Hour	5.00	193.10	965.50
6	Crew for Roller	Hour	5.00	290.20	1451.00
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour					Rs: 14559.60

labour component/unit qty 23.10

Add contractor's profit and overhead charges 13.615% 3.10

labour component/unit qty (including contractor's profit) **26.20****ABSTRACT:**

A. Cost of Materials		Rs: 0.00
B. Hire charges of Machinery		Rs: 69576.00
C. Cost of Labour		Rs: 14559.60
	Total	Rs: 84135.60
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 11455.06
Total cost for	630.00 cum	Rs: 95590.66
Rate per cum	(A+B+C+D)/630	Rs: 151.70

IRR-DAW-5-4

Providing **casing embankment** using **semi-pervious soil** available from excavation in **layers of 25 to 30 cm** before compaction including cost of all materials, machinery, labour, all other operations such as re-excavation, sorting out, transportation, spreading in layers of specified thickness, breaking clods, sectioning, **watering**, compacting to specified density control of **not less than 95 percent** using **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller** as **stipulated etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

A. MATERIALS:**970.00 cum**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs: 0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	4.60	1395.70	6420.22
	Fuel / Energy charges	Hour	4.60	801.50	3686.90
2	Shovel 0.85 cum	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
3	Tipper 5 cum	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (ele)	Hour	4.00	2.40	9.60
	Fuel / Energy charges	Hour	4.00	42.50	170.00
5	Water tanker 8000 ltr	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
6	Vibratory Roller 8 tonne	Hour	7.00	1092.00	7644.00
	Fuel / Energy charges	Hour	7.00	1354.00	9478.00
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery					Rs: 90204.52

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	4.60	257.40	1184.04
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	4.00	91.70	366.80
5	Crew for Water tanker	Hour	8.00	193.10	1544.80
6	Crew for Roller	Hour	7.00	290.20	2031.40
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour					Rs: 19055.04

labour component/unit qty 19.60

Add contractor's profit and overhead charges 13.615% 2.70

labour component/unit qty (including contractor's profit) **22.30****ABSTRACT:**

A. Cost of Materials		Rs: 0.00
B. Hire charges of Machinery		Rs: 90204.52
C. Cost of Labour		Rs: 19055.04
	Total	Rs: 109259.56
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 14875.69
Total cost for	970.00 cum	Rs: 124135.25
Rate per cum	(A+B+C+D)/970	Rs: 128.00

IRR-DAW-5-4-A

(New Item1 - 2011-12)

Providing casing embankment using semi-pervious soil available
from excavation in layers of 25 to 30 cm before compaction including cost
 of all materials, machinery, labour, all other operations such as re-excavation,
 sorting out, transportation, spreading in layers of specified thickness,
 breaking clods, sectioning, **watering**, compacting to specified density
 control of **not less than 90 percent using 2 Tonne Roller as**
stipulated etc., complete with initial lead upto 1 km and all lifts.
(For Maintenance Works)

DATA:

RATE ANALYSIS

UNIT :

A. MATERIALS:**970.00** cum

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs: 0.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	4.60	1395.70	6420.22
	Fuel / Energy charges	Hour	4.60	801.50	3686.90
2	Shovel 0.85 cum	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
3	Tipper 5 cum	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (ele)	Hour	4.00	2.40	9.60
	Fuel / Energy charges	Hour	4.00	42.50	170.00
5	Water tanker 8000 ltr	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
6	Vibratory Roller 8 tonne	Hour	7.00	1092.00	7644.00
	Fuel / Energy charges	Hour	7.00	1354.00	9478.00
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery					Rs: 90204.52

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	4.60	257.40	1184.04
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	4.00	91.70	366.80
5	Crew for Water tanker	Hour	8.00	193.10	1544.80
6	Crew for Roller	Hour	7.00	290.20	2031.40
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour					Rs: 19055.04

labour component/unit qty 19.60

Add contractor's profit and overhead charges 13.615% 2.70

labour component/unit qty (including contractor's profit) **22.30****ABSTRACT:**

A. Cost of Materials

Rs: 0.00

B. Hire charges of Machinery

Rs: 90204.52

C. Cost of Labour

Rs: 19055.04

Total

Rs: 109259.56

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 14875.69

Total cost for 970.00 cum

Rs: **124135.25**

Rate per cum (A+B+C+D)/970

Rs: 128.00

Deduct Rate for Proctor's density Control of 95% using 8T roller as per IRR-PMW-3-23

47.30

Add Rate for Proctor's Density control of 90% using 2T Roller as per IRR-PMW-3-24

6.40

Rate per cum

Rs.

87.10

IRR-DAW-5-5

Providing **homogeneous embankment** using soil from **approved borrow**
area in layers of 25 to 30 cm before compaction including cost of all
 materials, machinery, labour, all operations such as excavation, sorting out,
 transportation, spreading soil in layer of specified thickness, breaking clods,
 sectioning, **watering**, compacting to density control of **not less than**
95 percent or as stipulated using **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller** etc., complete
with initial lead upto 1 km and all lifts.

DATA:

RATE ANALYSIS

UNIT :

A. MATERIALS:**807.00** cum

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs: 0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	5.40	1395.70	7536.78
	Fuel / Energy charges	Hour	5.40	801.50	4328.10
2	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
3	Tipppers 5.00 cum capacity 5 Nos.	Hour	40.00	363.50	14540.00
	Fuel / Energy charges	Hour	40.00	393.70	15748.00
4	Pump 5 hp (ele)	Hour	4.00	2.40	9.60
	Fuel / Energy charges	Hour	4.00	42.50	170.00
5	Water tanker 8000 ltr	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
6	Vibratory Roller 8 tonne	Hour	6.40	1092.00	6988.80
	Fuel / Energy charges	Hour	6.40	1354.00	8665.60
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs: 84344.08	

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	5.40	257.40	1389.96
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	40.00	193.10	7724.00
4	Crew for Pump	Hour	4.00	91.70	366.80
5	Crew for Water tanker	Hour	8.00	193.10	1544.80
6	Crew for Roller	Hour	6.40	290.20	1857.28
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs: 17542.04	

labour component/unit qty 21.70

Add contractor's profit and overhead charges 13.615% 3.00

labour component/unit qty (including contractor's profit) **24.70****ABSTRACT:**

A. Cost of Materials

Rs: 0.00

B. Hire charges of Machinery

Rs: 84344.08

C. Cost of Labour

Rs: 17542.04

Total

Rs: 101886.12

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 13871.8

Total cost for 807.00 cum

Rs: **115757.92****Rate per cum** (A+B+C+D)/807Rs: **143.40**

IRR-DAW-5-6

Providing **embankment adjacent to masonry / concrete structures and filling trial pits** using **impervious soil** from **approved borrow areas** in **layers of 10 to 15 cm** and compacting each layer to density control of **not less than 95 percent using pneumatic tampers or by vibratory earth rammers** including cost of all materials, machinery, labour, picking previous layer, spreading soil in layer, breaking clods, **watering** etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS**A. MATERIALS:**

UNIT :

80 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of air hose	Hour	16.00	10.25	164.00
			0.00	0.00	0.00
Total cost of Materials				Rs: 164.00	

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	0.15	1395.70	209.36
	Fuel / Energy charges	Hour	0.15	801.50	120.23
2	Shovel 0.85 cum	Hour	0.80	1388.50	1110.80
	Fuel / Energy charges	Hour	0.80	1145.70	916.56
3	Tipper 5 cum	Hour	3.00	363.50	1090.50
	Fuel / Energy charges	Hour	3.00	393.70	1181.10
4	Air compressor 8.5 cmm (ele)	Hour	8.00	139.00	1112.00
	Fuel / Energy charges	Hour	8.00	478.40	3827.20
5	Pump 5 hp (ele)	Hour	0.40	2.40	0.96
	Fuel / Energy charges	Hour	0.40	42.50	17.00
6	Water tanker 8000 ltr	Hour	0.80	359.00	287.20
	Fuel / Energy charges	Hour	0.80	393.70	314.96
7	Pneumatic tampers 2 Nos.	Hour	16.00	16.90	270.40
	Fuel / Energy charges	Hour	16.00	0.00	0.00
8	Sundries	LS	1.00	31.00	31.00
Total hire charges of Machinery				Rs: 10489.26	

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	0.15	257.40	38.61
2	Crew for Shovel	Hour	0.80	257.40	205.92
3	Crew for Tipper	Hour	3.00	193.10	579.30
4	Crew for Air compressor	Hour	8.00	181.40	1451.20
5	Crew for Pump	Hour	0.40	91.70	36.68
6	Crew for Water tanker	Hour	0.80	193.10	154.48
7	Crew for Pneumatic tamper	Hour	16.00	290.20	4643.20
8	work inspector	Day	1.00	500.00	500.00
9	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	9609.39

labour component/unit qty 120.10

Add contractor's profit and overhead charges 13.615% 16.40

labour component/unit qty (including contractor's profit) **136.50****ABSTRACT:**

A. Cost of Materials Rs: 164.00

B. Hire charges of Machinery Rs: 10489.26

C. Cost of Labour Rs: 9609.39

Total Rs: 20262.65

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2758.76

Total cost for 80.00 cum Rs: **23021.41****Rate per cum (A+B+C+D)/80 Rs: 287.80**

IRR-DAW-5-7

Providing and **constructing rockfill embankment** with 300 mm down graded stones and quarry spalls from approved source including cost of all materials, machinery, labour, spreading stones and spalls in layers, hand packing, wedging, finishing the surface to required slopes etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS**A. MATERIALS:**

UNIT : 400 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of drill rod 2.5 m long	Rm	387.00	37.00	14319.00
	Reconditioning charges @ 10%				1431.90
2	Use rate of air hose 6 Nos.	Hour	60.00	10.25	615.00
3	Explosive small dia	kg	118.00	56.48	6665.11
4	Electric detonators	Nos	159.00	9.41	1496.83
5	Detonator ordinary	Nos	8.00	5.23	41.84
6	Fuse coil	Rm	200.00	7.32	1464.40
7	Sundries (waste tyres etc)	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	26344.08

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Air compressor 8.5cm(diesel)3 Nos	Hour	30.00	224.20	6726.00
	Fuel / Energy charges	Hour	30.00	1171.80	35154.00
2	Jack hammer 6 Nos	Hour	60.00	16.10	966.00
	Fuel / Energy charges	Hour	60.00	0.00	0.00
3	Angle dozer 90 hp	Hour	4.00	1395.70	5582.80
	Fuel / Energy charges	Hour	4.00	801.50	3206.00
4	Shovel 0.85 cum	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
5	Tipper 5 cum	Hour	24.00	363.50	8724.00
	Fuel / Energy charges	Hour	24.00	393.70	9448.80
Total hire charges of Machinery				Rs:	90081.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Air compressor	Hour	30.00	232.10	6963.00
2	Crew for Jack hammer	Hour	60.00	362.70	21762.00
3	Crew for Shovel	Hour	8.00	257.40	2059.20
4	Crew for Tipper	Hour	24.00	193.10	4634.40
5	Crew for Dozer	Hour	4.00	257.40	1029.60
6	Blaster	Day	1.00	550.00	550.00
7	Helper blaster	Day	1.00	440.00	440.00
8	work inspector	Day	2.00	500.00	1000.00
9	Mason Class-II	Day	2.00	440.00	880.00
10	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour				Rs:	43318.20

labour component/unit qty 108.30

Add contractor's profit and overhead charges 13.615% 14.70

labour component/unit qty (including contractor's profit) **123.00****ABSTRACT:**

A. Cost of Materials Rs: 26344.08

B. Hire charges of Machinery Rs: 90081.20

C. Cost of Labour Rs: 43318.20

Total Rs: 159743.48

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 21749.07

Total cost for 400.00 cum Rs: **181492.55****Rate per cum (A+B+C+D)/400 Rs: 453.70**

IRR-DAW-5-8

Providing and constructing dry rubble rock-toe using rubble and stone chips from approved source including cost of all materials, machinery, labour, hand packing rubble and stone chips, finishing top and sides to required slopes etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 cum	
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Use rate of drill rod 1.5 m long	Rm	97.00	37.00	3589.00
	Reconditioning charges @ 10%				358.90
2	Use rate of air hose	Hour	15.00	10.25	153.75
3	Explosive small dia	kg	30.00	56.48	1694.52
4	Electric detonator	Nos	40.00	9.41	376.56
5	Detonator ordinary	Nos	2.00	5.23	10.46
6	Fuse coil	Rm	50.00	7.32	366.10
7	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	6611.29

B. MACHINERY:		UNIT :		100 cum	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Air compressor 8.5 cmm (diesel)	Hour	7.50	224.20	1681.50
	Fuel / Energy charges	Hour	7.50	1171.80	8788.50
2	Jack hammer	Hour	15.00	16.10	241.50
	Fuel / Energy charges	Hour	15.00	0.00	0.00
3	Shovel 0.85 cum	Hour	2.00	1388.50	2777.00
	Fuel / Energy charges	Hour	2.00	1145.70	2291.40
4	Tipper 5 cum	Hour	6.00	363.50	2181.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
Total hire charges of Machinery				Rs:	20323.10

C. LABOUR:		UNIT :		100 cum	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Air compressor	Hour	7.50	232.10	1740.75
2	Crew for Jack hammer	Hour	15.00	362.70	5440.50
3	Crew for Shovel	Hour	2.00	257.40	514.80
4	Crew for Tipper	Hour	6.00	193.10	1158.60
5	Blaster	Day	0.50	550.00	275.00
6	Helper blaster	Day	1.00	440.00	440.00
7	work inspector	Day	1.00	500.00	500.00
8	Mason Class-II	Day	7.00	440.00	3080.00
9	mazdoor	Day	19.00	400.00	7600.00
Total cost of Labour				Rs:	20749.65

labour component/unit qty	207.50
Add contractor's profit and overhead charges 13.615%	28.30
labour component/unit qty (including contractor's profit)	235.80

ABSTRACT:

A. Cost of Materials	Rs:	6611.29
B. Hire charges of Machinery	Rs:	20323.10
C. Cost of Labour	Rs:	20749.65
	Total	Rs: 47684.04
D. Add for contractor's profit and overheads on (A+B+C) 13.615%	Rs:	6492.18
Total cost for 100.00 cum	Rs:	54176.22
Rate per cum (A+B+C+D)/100	Rs:	541.80

IRR-DAW-5-9

Providing and constructing dry rubble rock-toe with rubble and stone chips from **dump yard (Spoil Bank)** including cost of all materials, machinery, labour, hand packing rubble and stone chips, finishing top and sides to required slopes etc., complete **with initial lead upto 1 km and all lifts.**

Note: Useful rubble and stone chips will be issued at dump yard at the issue rate for useful rubble / stone chips. Sorting out and breaking charges included in rate analysis.

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 cum	
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Useful rubble (at dump yard)	cum	100.00	148.00	14800.00
2	Useful stone chips (at dump yard)	cum	15.00	176.00	2640.00
Total cost of Materials				Rs:	17440.00

B. MACHINERY:		UNIT :		100 cum	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum	Hour	2.00	1388.50	2777.00
	Fuel / Energy charges	Hour	2.00	1145.70	2291.40
2	Tipper 5 cum	Hour	6.00	363.50	2181.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
Total hire charges of Machinery				Rs:	9611.60

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	2.00	257.40	514.80
2	Crew for Tipper	Hour	6.00	193.10	1158.60
3	Mason Class-II	Day	7.00	440.00	3080.00
4	work inspector	Day	1.00	500.00	500.00
6	Stone breaker	Day	2.00	440.00	880.00
7	mazdoor	Day	21.00	400.00	8400.00
Total cost of Labour				Rs:	14533.40

labour component/unit qty	145.30
Add contractor's profit and overhead charges	13.615% 19.80
labour component/unit qty (including contractor's profit)	165.10

ABSTRACT:

A. Cost of Materials	Rs:	17440.00
B. Hire charges of Machinery	Rs:	9611.60
C. Cost of Labour	Rs:	14533.40
	Total	Rs: 41585.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs. 5661.8
Total cost for	100.00 cum	Rs: 47246.80
Rate per cum	(A+B+C+D)/100	Rs: 472.50

IRR-DAW-5-9-A

(New Item 4 -2012-13)

Providing and **constructing Dry rock Pitching for Groynes** using **Un-Coursed rubble stone of size 300 mm thick**and Un-Coursed rubble stone chips **from Quarry to site of work** including cost of all materials, Machinery, Labour charge hand packing Un-Course rubble stone & chips to the designed profile **with all leads and lifts etc**

DATA:

RATE ANALYSIS

UNIT :

100 cum**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Un Coursed Rubble Stones at quarry	cum	100.00	303.00	30300.00
2	Stone Chips at Quarry	cum	15.00	333.00	4995.00
Total cost of Materials				Rs:	35295.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Shovel 0.85 cum for loading tipper at the worksite	Hour	2.00	1388.50	2777.00
	Fuel / Energy charges	Hour	2.00	1145.70	2291.40
2	Tipper 5 cum	Hour	6.00	363.50	2181.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
Total hire charges of Machinery				Rs:	9611.60

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Shovel	Hour	2.00	257.40	514.80
2	Crew for Tipper	Hour	6.00	193.10	1158.60
3	Mason Class-II	Day	7.00	440.00	3080.00
4	work inspector	Day	1.00	500.00	500.00
6	Stone breaker	Day	2.00	440.00	880.00
7	mazdoor	Day	21.00	400.00	8400.00
Total cost of Labour				Rs:	14533.40

labour component/unit qty	145.30
Add contractor's profit and overhead charges	13.615% 19.80
labour component/unit qty (including contractor's profit)	165.10

ABSTRACT:

A. Cost of Materials	Rs:	35295.00
B. Hire charges of Machinery	Rs:	9611.60
C. Cost of Labour	Rs:	14533.40
	Total	Rs: 59440.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs. 8092.76
Total cost for	100.00 cum	Rs: 67532.76
Rate per cum	(A+B+C+D)/100	Rs: 675.30

IRR-DAW-5-10

Providing and **laying 30 cm diameter open jointed hume pipes with collars in rock-toe** for drainage including cost of all materials, machinery, labour etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

100 Rm

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Hume pipe 300 mm dia.with collar	Rm	100.00	508.00	50800.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	50800.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Mason Cl- II	Day	2	440.00	880.00
2	mazdoor	Day	6	400.00	2400.00
Total cost of Labour				Rs:	3280.00

labour component/unit qty 32.80

Add contractor's profit and overhead charges 13.615% 4.50

labour component/unit qty (including contractor's profit) **37.30****ABSTRACT:**

A. Cost of Materials

Rs: 50800.00

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 3280.00

Total

Rs: 54080.00

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 7362.99

Total cost for 100.00 Rm

Rs: **61442.99****Rate per Rm (A+B+C+D)/100****Rs: 614.40**

IRR_DAW-6

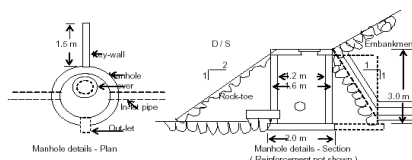
FILTER & PITCHING WORKS :

IRR-DAW-6-1

Providing and constructing 1.20 m internal diameter and average 3 m height RCC manhole with 60 cm dia. top cover in M-15 grade cement concrete using 20 mm down graded, clean, hard coarse aggregate, 20 cm thick for bed / sides / top slab / 1.5 m long cut-off wall and 7.5 cm thick for cover including providing 12 mm dia reinforcement bars at 30 cm c / c bothways for bed / sides / cut-off wall / top slab / rungs and 8 mm dia bars at 15 cm c / c bothways for cover, excavation for foundation, providing 30 cm dia hume pipe outlet, cost of all materials, machinery, labour, formwork, scaffolding, batching, mixing, laying, vibrating, finishing, curing etc., complete with lead upto 1 km and all lifts.

(Cement content : 300 kg/cum , CA : 0.80 cum, Blending Ratio of CA -- 65:35,

FA : 0.44 cum, superplasticizer (0.4% by wt. of cement)



Excavation for foundation : (0.7857 x 2 x 2 x 2) + (1.5 x 0.4 x 2) : 7.50 cum

DATA:

RATE ANALYSIS**A. MATERIALS:**

UNIT

1 Each

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cement	kg	1331.70	3.88	5169.66
	Cement for incidentals @ 3 kg / cum	kg	13.32	3.88	51.70
2	Coarse aggregate 20 to 10 mm	cum	2.31	1182.00	2728.39
	Coarse aggregate 10 to 4.75 mm	cum	1.24	860.00	1068.91
3	Fine aggregate (Un-Screened)	cum	1.95	100.00	195.32
4	Super plasticiser	kg	23.65	43.00	1016.76
5	Reinforcement steel with 5 % wastage	kg	163.70	42.00	6875.19
6	Binding wire	kg	4.00	53.00	212.00
7	Hume pipe 300 mm dia	Rm	1.00	508.00	508.00
8	Use rate of shuttering	sqm	36.00	220.06	7922.16
9	Scaffolding of shuttering @	5%			396.11
10	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	26206.19

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Concrete mixer 300 / 200 (ele)	Hour	4.00	42.10	168.40
	Fuel / Energy charges	Hour	4.00	42.50	170.00
2	Needle vibrator 40 mm dia (ele)	Hour	4.00	6.50	26.00
	Fuel / Energy charges	Hour	4.00	8.50	34.00
3	Pump 5 hp (ele)	Hour	0.50	2.40	1.20
	Fuel / Energy charges	Hour	0.50	42.50	21.25
4	Sundries	LS	1.00	31.00	31.00
Total hire charges of Machinery				Rs:	451.85

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Mason Cl- II	Day	1.00	440.00	440.00
2	Bar bender	Day	1.00	600.00	600.00
3	work inspector	Day	1.00	500.00	500.00
4	mazdoor	Day			
	for excavation for foundation	Day	2.00	400.00	800.00
	for bar bending	Day	1.00	400.00	400.00
	for concreting	Day	5.00	400.00	2000.00
	for excavation for foundation	Day	2.00	400.00	800.00
	for concreting	Day	4.00	400.00	1600.00
	for curing	Day	1.00	400.00	400.00
5	Labour for shuttering	sqm	36.00	99.60	3585.60
Total cost of Labour				Rs:	11125.60

labour component/unit qty	11125.60
Add contractor's profit and overhead charges	13.615% 1514.80
labour component/unit qty (including contractor's profit)	12640.40

ABSTRACT:

A. Cost of Materials					Rs: 26206.19
B. Hire charges of Machinery					Rs: 451.85
C. Cost of Labour					Rs: 11125.60
				Total	Rs: 37783.64
D. Add for contractor's profit and overheads on (A+B+C)			13.615%		Rs: 5144.24
Lead Charges for 1 Km for FA	1.95	cum @		32.4 Rs./Cum	63.282384
Lead Charges for 1 Km for CA	3.55	cum @		31.5 Rs./Cum	111.86
Lead Charges for 1Km for Steel (including Loading and Unloading Charges)	0.16	tonne @		190.3 Rs./Tonne	31.151159
Total cost for	1.00	Each			Rs: 43134.18
Rate per	Each	(A+B+C+D)/1.0			Rs: 43134.20

IRR-DAW-6-2

Providing and **constructing longitudinal and cross graded filter drains** using sand and 80-20 mm and 20 mm down graded aggregates satisfying specified filter criteria in layers as per specifications including cost of all materials, machinery, labour, laying to required slopes, compaction etc. complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS
A. MATERIALS:

UNIT :

100 cum

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Fine aggregate (Un-Screened)	cum	47.50	100.00	4750.00
2	Coarse aggregate 80-40 mm	cum	17.865	622.00	11112.03
3	Coarse aggregate 40-20 mm	cum	1.99	1133.00	2249.01
4	Coarse aggregate 20-10 mm	cum	24.49	1182.00	28944.23
5	Coarse aggregate 10 mm down	cum	8.16	860.00	7019.75
Total cost of Materials					Rs: 54075.01

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	38.00	400.00	15200.00
Total cost of Labour					Rs: 15700.00

labour component/unit qty	157.00
Add contractor's profit and overhead charges	13.615% 21.40
labour component/unit qty (including contractor's profit)	178.40

ABSTRACT:

A. Cost of Materials					Rs: 54075.01
B. Hire charges of Machinery					Rs: 0.00
C. Cost of Labour					Rs: 15700.00
				Total	Rs: 69775.01
D. Add for contractor's profit and overheads on (A+B+C)			13.615%		Rs: 9499.87
Total cost for	100.00 cum				Rs: 79274.88
Rate per	cum	(A+B+C+D)/100			Rs: 792.70

IRR-DAW-6-3

Providing and **constructing 1.40 m thick vertical or inclined graded filter media** consisting of 20 cm thick sand layers, 25 cm thick 20 mm down coarse aggregate layers and 50 cm thick 80-20 mm coarse aggregate layer using approved materials satisfying specified filter criteria as per specifications including cost of all materials, machinery, labour, laying to required slope, compaction etc., **complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS
A. MATERIALS:

UNIT :

100 cum

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Fine aggregate (Un-Screened)	cum	28.60	100.00	2860.00
2	Coarse aggregate 80-40 mm	cum	32.13	622.00	19984.86
3	Coarse aggregate 40-20 mm	cum	3.57	1133.00	4044.81
4	Coarse aggregate 20-10 mm	cum	28.13	1182.00	33243.75
5	Coarse aggregate 10 mm down	cum	8.93	860.00	7675.50
Total cost of Materials					Rs: 67808.92

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	38.00	400.00	15200.00
Total cost of Labour					Rs: 15700.00
labour component/unit qty			157.00		
Add contractor's profit and overhead charges			13.615%	21.40	
labour component/unit qty (including contractor's profit)			178.40		

ABSTRACT:

A. Cost of Materials		Rs: 67808.92
B. Hire charges of Machinery		Rs: 0.00
C. Cost of Labour		Rs: 15700.00
	Total	Rs: 83508.92
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 11369.74
Total cost for	100.00 cum	Rs: 94878.66
Rate per cum	(A+B+C+D)/100	Rs: 948.80

IRR-DAW-6-4

Providing and constructing graded filter media below and behind rock-toe consisting of 20 cm thick sand, 25 cm thick 20 - 4.75 mm and 40 cm thick 80 - 20 mm size graded coarse aggregates satisfying filter criteria as per specifications including cost of all materials, labour, machinery, laying to required slope, compaction etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS
A. MATERIALS:

UNIT

100 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Fine aggregate (Un-Screened)	cum	23.55	100.00	2355.00
2	Coarse aggregate 80-40 mm	cum	42.39	622.00	26366.58
3	Coarse aggregate 40-20 mm	cum	4.71	1133.00	5336.43
4	Coarse aggregate 20-10 mm	cum	22.05	1182.00	26063.10
5	Coarse aggregate 10 mm down	cum	7.35	860.00	6321.00
Total cost of Materials					Rs: 66442.11

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	34.00	400.00	13600.00
Total cost of Labour					Rs: 14100.00
labour component/unit qty			141.00		
Add contractor's profit and overhead charges			13.615%	19.20	
labour component/unit qty (including contractor's profit)			160.20		

ABSTRACT:

A. Cost of Materials		Rs: 66442.11
B. Hire charges of Machinery		Rs: 0.00
C. Cost of Labour		Rs: 14100.00
	Total	Rs: 80542.11
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 10965.81
Total cost for	100.00 cum	Rs: 91507.92
Rate per cum	(A+B+C+D)/100	Rs: 915.10

IRR-DAW-6-4-A
(New Item2- 2011-12)

Providing and constructing graded filter media below and behind rock-toe consisting of 30 cm thick 80 - 20 mm size graded coarse aggregates satisfying filter criteria as per specifications including cost of all materials, labour, machinery, laying to required slope, compaction etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS
A. MATERIALS:

UNIT

100 cum

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Coarse aggregate 80-40 mm	cum	35.00	622.00	21770.00
2	Coarse aggregate 40-20 mm	cum	55.00	1133.00	62315.00
3	Coarse aggregate 20-10 mm	cum	5.00	1182.00	5910.00
4	Coarse aggregate 10 mm down	cum	5.00	860.00	4300.00
Total cost of Materials					Rs: 94295.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	12.00	400.00	4800.00
Total cost of Labour				Rs:	5300.00

labour component/unit qty 53.00

Add contractor's profit and overhead charges 13.615% 7.20

labour component/unit qty (including contractor's profit) **60.20****ABSTRACT:**

A. Cost of Materials

Rs: 94295.00

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 5300.00

Total

Rs: 99595.00

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

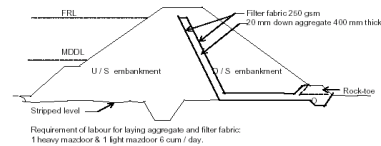
Rs: 13559.86

Total cost for 100.00 cum

Rs: **113154.86****Rate per cum (A+B+C+D)/100**Rs: **1131.50**

IRR-DAW-6-5

Providing and **laying filter media consisting of 2 layers of 250 gsm poly-propylene** non-woven filter fabric and 400 mm thick 20 mm down graded coarse aggregate for vertical / inclined and horizontal filter blanket for embankment including cost of all materials, machinery, labour etc., complete **with lead upto 50 m for aggregate and all leads for fabric and all lifts.**



DATA:

RATE ANALYSIS**A. MATERIALS:**

UNIT :

100 sqm

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	PP filter fabric 250 gsm	sqm	220.00	116.00	25520.00
2	20 - 10 mm CA @ 75 %	cum	30.00	1182.00	35460.00
	10 mm down CA @ 25 %	cum	10.00	860.00	8600.00
Total cost of Materials				Rs:	69580.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	14.00	400.00	5600.00
Total cost of Labour				Rs:	6100.00

labour component/unit qty 61.00

Add contractor's profit and overhead charges 13.615% 8.30

labour component/unit qty (including contractor's profit) **69.30****ABSTRACT:**

A. Cost of Materials

Rs: 69580.00

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 6100.00

Total

Rs: 75680.00

D. Add for contractor's profit and overheads on (A+B+C)

13.615%

Rs: 10303.83

Total cost for 100.00 sqm

Rs: **85983.83****Rate per sqm (A+B+C+D)/100**Rs: **859.80**

IRR-DAW-6-6

Providing and **constructing 45 cm thick chimney filter** using clean approved sand satisfying filter criteria including cost of all materials, machinery, labour, compacting etc., complete with **initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS**A. MATERIALS:**

UNIT :

100 cum

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	105.00	100.00	10500.00
			0.00	0.00	
Total cost of Materials				Rs:	10500.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	30.00	400.00	12000.00
Total cost of Labour				Rs:	12500.00

labour component/unit qty 125.00
 Add contractor's profit and overhead charges 13.615% 17.00
 labour component/unit qty (including contractor's profit) **142.00**

ABSTRACT:

A. Cost of Materials	Rs:	10500.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	12500.00
	Rs:	23000.00
	Total	Rs: 3131.45
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 3131.45
Total cost for	100.00 cum	Rs: 26131.45
Rate per cum	(A+B+C+D)/100	Rs: 261.30

IRR-DAW-6-7

Providing and **constructing 90 cm thick transition cum filter media behind rockfill** using approved sand and 80-20 mm and 20 mm down graded aggregates satisfying the filter criteria in layers of 30 cm thickness each as per specifications including cost of all materials, machinery, labour, laying each layer to required slope, compaction etc., complete with initial **lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS**A. MATERIALS:**

UNIT :

100 cum.

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	34.00	100.00	3400.00
2	Coarse aggregate 80-40 mm	cum	30.60	622.00	19033.20
3	Coarse aggregate 40-20 mm	cum	3.40	1133.00	3852.20
4	Coarse aggregate 20-10 mm	cum	25.50	1182.00	30141.00
5	Coarse aggregate 10 mm down	cum	8.50	860.00	7310.00
Total cost of Materials				Rs:	63736.40

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	40.00	400.00	16000.00
Total cost of Labour				Rs:	16500.00

labour component/unit qty 165.00
 Add contractor's profit and overhead charges 13.615% 22.50
 labour component/unit qty (including contractor's profit) **187.50**

ABSTRACT:

A. Cost of Materials	Rs:	63736.40
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	16500.00
	Rs:	80236.40
	Total	Rs: 10924.19
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 91160.59
Total cost for	100.00 cum.	Rs: 91160.59
Rate per cum.	(A+B+C+D)/100	Rs: 911.60

IRR-DAW-6-8

Providing and **constructing 60 cm thick hand packed rough stone revetment** with 65 to 75 cm long through stones at 1.50 m c / c over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size approved graded aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with chips, finishing etc. complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 sqm	
Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	15.30	100.00	1530.00
2	Coarse aggregate 10 mm down	cum	15.30	860.00	13158.00
3	Coarse aggregate 40-20 mm	cum	15.30	1133.00	17334.90
4	Stone chips	cum	9.00	333.00	2997.00
5	Rough stones (rubble) 30 to 45 cm long	cum	57.60	303.00	17452.80
6	Through stones 65 to 75 cm long	Nos	44.00	56.00	2464.00
Total cost of Materials				Rs:	54936.70

B. MACHINERY:		UNIT :		100 sqm	
Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:		UNIT :		100 sqm	
Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class-II	Day	10.00	440.00	4400.00
3	mazdoor	Day	33.00	400.00	13200.00
Total cost of Labour				Rs:	18100.00

labour component/unit qty	181.00
Add contractor's profit and overhead charges	13.615% 24.60
labour component/unit qty (including contractor's profit)	205.60

ABSTRACT:

A. Cost of Materials	Rs:	54936.70
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	18100.00
	Total	Rs: 73036.70
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs. 9943.95
Total cost for	100.00 sqm	Rs: 82980.65
Rate per sqm	(A+B+C+D)/100	Rs: 829.80

IRR-DAW-6-9

Providing and **constructing 60 cm thick hand packed rough stone revetment** with 65 to 75 cm long through stones at 1.50 m c / c over a backing of 60 cm thick graded filter media consisting of sand, 10 mm and 40 mm size approved graded aggregates laid in layers of 20 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with chips, finishing etc. complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 sqm	
Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	20.40	100.00	2040.00
2	Coarse aggregate 10 mm down	cum	20.40	860.00	17544.00
3	Coarse aggregate 40-20 mm	cum	20.40	1133.00	23113.20
4	Stone chips	cum	9.00	333.00	2997.00
5	Rough stones (rubble) 30 to 45 cm long	cum	57.60	303.00	17452.80
6	Through stones 65 to 75 cm long	Nos	44.00	56.00	2464.00
Total cost of Materials				Rs:	65611.00

B. MACHINERY:		UNIT :		100 sqm	
Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:		UNIT :		100 sqm	
Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class-II	Day	10.00	440.00	4400.00
3	mazdoor	Day	39.00	400.00	15600.00
Total cost of Labour				Rs:	20500.00

labour component/unit qty	205.00
Add contractor's profit and overhead charges	13.615% 27.90
labour component/unit qty (including contractor's profit)	232.90

ABSTRACT:

A. Cost of Materials	Rs:	65611.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	20500.00
	Total	Rs: 86111.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs. 11724.01
Total cost for	100.00 sqm	Rs: 97835.01
Rate per sqm	(A+B+C+D)/100	Rs: 978.40

IRR-DAW-6-10

Providing and **constructing 60 cm thick hand packed rough stone riprap over a backing of 45 cm thick graded filter media** consisting of sand, 10 mm and 40 mm size graded approved aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with stone chips etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 sqm.	
Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	15.30	100.00	1530.00
2	Coarse aggregate 10 mm down	cum	15.30	860.00	13158.00
3	Coarse aggregate 40-20 mm	cum	15.30	1133.00	17334.90
4	Stone chips	cum	9.00	333.00	2997.00
5	Rough stones (rubble)	cum	60.00	303.00	18180.00
Total cost of Materials					Rs: 53199.90

B. MACHINERY:		Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:		Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class-II	Day	5.00	440.00	2200.00
3	mazdoor	Day	28.00	400.00	11200.00
Total cost of Labour					Rs: 13900.00

labour component/unit qty 139.00

Add contractor's profit and overhead charges 13.615% 18.90

labour component/unit qty (including contractor's profit) **157.90****ABSTRACT:**

A. Cost of Materials	Rs: 53199.90
B. Hire charges of Machinery	Rs: 0.00
C. Cost of Labour	Rs: 13900.00
Total	Rs: 67099.90
D. Add for contractor's profit and overheads on (A+B+C)	Rs: 9135.65
Total cost for	Rs: 76235.55
Rate per sqm.	Rs: 762.40

IRR-DAW-6-11

Providing and **constructing 75 cm thick hand packed rough stone riprap over a backing of 45 cm thick graded filter media** consisting of sand, 10 mm and 40 mm size graded approved aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with stone chips, etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 sqm	
Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	15.30	100.00	1530.00
2	Coarse aggregate 10 mm down	cum	15.30	860.00	13158.00
3	Coarse aggregate 40-20 mm	cum	15.30	1133.00	17334.90
4	Stone chips	cum	11.00	333.00	3663.00
5	Rough stones (rubble)	cum	75.00	303.00	22725.00
Total cost of Materials					Rs: 58410.90

B. MACHINERY:		Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:		Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class-II	Day	6.00	440.00	2640.00
3	mazdoor	Day	30.00	400.00	12000.00
Total cost of Labour					Rs: 15140.00

labour component/unit qty 151.40

Add contractor's profit and overhead charges 13.615% 20.60

labour component/unit qty (including contractor's profit) **172.00****ABSTRACT:**

A. Cost of Materials	Rs: 58410.90
B. Hire charges of Machinery	Rs: 0.00
C. Cost of Labour	Rs: 15140.00
Total	Rs: 73550.90

D.Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs. 10013.96
Total cost for	100.00 sqm	Rs: 83564.86
Rate per sqm	(A+B+C+D)/100	Rs: 835.60

IRR-DAW-6-12

Providing and **constructing 90 cm thick hand packed rough stone riprap over a backing of 45 cm thick graded filter media** consisting of sand, 10 mm and 40 mm size graded approved aggregates laid in layers of 15 cm thick each including cost of all materials, machinery, labour, laying to required slopes, wedging with stone chips etc., **complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 sqm	
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand (Un-Screened)	cum	15.30	100.00	1530.00
2	Coarse aggregate 10 mm down	cum	15.30	860.00	13158.00
3	Coarse aggregate 40-20 mm	cum	15.30	1133.00	17334.90
4	Stone chips	cum	13.50	333.00	4495.50
5	Rough stones (rubble)	cum	90.00	303.00	27270.00
Total cost of Materials					Rs: 63788.40

B. MACHINERY:		UNIT :		100 sqm	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:		UNIT :		100 sqm	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class-II	Day	8.00	440.00	3520.00
3	mazdoor	Day	34.00	400.00	13600.00
Total cost of Labour					Rs: 17620.00

labour component/unit qty	176.20
Add contractor's profit and overhead charges	13.615% 24.00
labour component/unit qty (including contractor's profit)	200.20

ABSTRACT:

A. Cost of Materials	Rs: 63788.40
B. Hire charges of Machinery	Rs: 0.00
C. Cost of Labour	Rs: 17620.00
	Rs: 81408.40
	Total
D.Add for contractor's profit and overheads on (A+B+C)	13.615%
Total cost for	100.00 sqm
Rate per sqm	(A+B+C+D)/100
	Rs: 11083.75
	Rs: 92492.15
	Rs: 924.90

IRR-DAW-6-13

Providing and **laying Hariyala or other approved quality turfing sods** for the slopes of earthen embankments over 20 mm thick sand backing including cost of all materials, machinery, labour including preparing surface, spreading sand, watering for 15 days etc., **complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

A. MATERIALS:		UNIT :		100 sqm.	
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Sand for filling	cum	2.00	100.00	200.00
2	Hariyala turfing sods	sqm	100.00	24.00	2400.00
Total cost of Materials					Rs: 2600.00

B. MACHINERY:		UNIT :		100 sqm	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:		UNIT :		100 sqm	
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Cartman with double bullock cart	Day	2.00	500.00	1000.00
2	mazdoor	Day	15.00	400.00	6000.00
Total cost of Labour					Rs: 7000.00

labour component/unit qty	70.00
Add contractor's profit and overhead charges	13.615% 9.50
labour component/unit qty (including contractor's profit)	79.50

ABSTRACT:

A. Cost of Materials	Rs: 2600.00
B. Hire charges of Machinery	Rs: 0.00
C. Cost of Labour	Rs: 7000.00
	Rs: 9600.00
	Total
D.Add for contractor's profit and overheads on (A+B+C)	13.615%
Lead Charges for 1 Km for FA	2.00 cum @ 32.4 Rs./Cum
Total cost for	100.00 sqm.
Rate per sqm.	(A+B+C+D)/100
	Rs: 1307.04
	Rs: 10971.84
	Rs: 109.70

Chapter - II

TUNNEL AND ALLIED WORKS - Standard Data

(WLL BE WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)
FOR THE YEAR :2018-19

Index- code

TUNNEL AND ALLIED WORKS - DATA RATES

IRR-TAW

Directions to add Seigniorage Charges and Additional Lead Charges**Seigniorage Charges:**

1. The unit rate for work item in the Standard Data is **exclusive of Seigniorage Charges** wherever applicable.
2. The appropriate Seigniorage Charges for relevant materials are to be added to the Unit rate of work item while preparing the estimate. (i.e., to the data itself)
3. The Provision towards Contractor's Profit and Overhead charges **should not be operated on** the Seigniorage Charges while adding Seigniorage Charges to the data in the estimate

Additional Lead and Lift Charges:

1. Unless otherwise specified the basic rates are inclusive of all lifts.
2. For concrete, masonry and reinforcement items **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:

Additional lead charges for Steel, sand, coarse aggregate, stones and stone chips shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.

In case of Cement and Steel, Loading and unloading charges are already added in the work item while arriving the unit rate and hence should not be added again

Example:

Total lead for sand from approved sand quarry :		15 Km
Initial lead included in the basic rate in the SR :		1 Km
Additional lead charges : Lead charges for 5 km	Rs.	86.40
Lead charges for next 10 km	Rs.	130
Total lead charges for 15 km /cum	Rs.	216.40
Less 1 km initial lead charges /cum	Rs.	32.40 (-)
Net additional lead charges / cum	Rs.	184.00

3. The Leads for Steel shall be from the nearest market place to the Project area

4. For earth/rockfill embankments **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:

Additional lead charges for Earth, Murrum etc., shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item. (same as above)

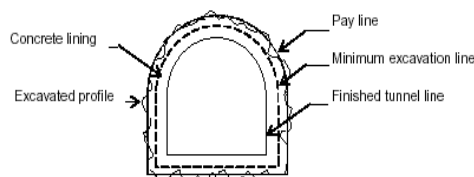
Example:

Total lead for earth from approved borrow area :		15 Km
Initial lead included in the basic rate in the SR :		1 Km
Additional lead charges : Lead charges for 5 km	Rs.	86.40
Lead charges for next 10 km	Rs.	130
Total lead charges for 15 km /cum	Rs.	216.40
Less 1 km initial lead charges /cum	Rs.	32.40 (-)
Net additional lead charges / cum	Rs.	184.00

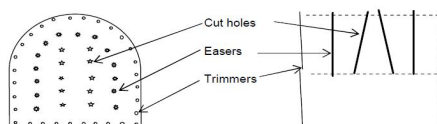
5. The initial lead up to 50 m as mentioned in some standard data items is meant for manual lead within the working area. For conveyance of materials, the lead required from quarry/Borrow area/ Dump Area to worksite shall be added to the data without deducting the 50 m initial lead charges

TAW -Work ItemsIRR-TAW-1 **EXCAVATION :**

- IRR-TAW-1-1 **Excavation for adit by tunnelling methods in all types of rock** including cost of all materials, machinery, labour, scaling excavated surface, ventilation, lighting, drainage, removing and hauling the excavated muck outside adit upto specified dump area and all other ancillary operations etc., complete **with initial lead upto 1km and all lifts.**



TYPICAL CROSS SECTION OF TUNNEL 4.50 m dia.



TYPICAL DRILLING PATTERN FOR ADIT / TUNNEL

DATA:

RATE ANALYSISUNIT : **38.50 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Small dia explosive	kg	40.00	56.48	2259.36
2	Delay detonators	Nos	54.00	16.74	903.74
3	Electric detonators	Nos	5.00	9.41	47.07
4	Detonating fuse coil	Rm	50.00	7.32	366.10
5	Use rate of drill rod 2.5 m long	Rm	119.00	37.00	4403.00
	Reconditioning charges @ 10%				440.30
6	Use rate of air hose	Hour	20.00	5.13	102.50
7	Use rate of water hose	Hour	20.00	5.16	103.13
8	Sundries(paint / template etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	8687.20

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling jumbo	Hour	8.00	299.70	2397.60
	Fuel / Energy charges	Hour	8.00	56.20	449.60
2	Air compressor 15 cmm (ele)	Hour	5.00	112.90	564.50
	Fuel / Energy charges	Hour	5.00	1063.10	5315.50
3	Jack hammer (4 x 5 hrs)	Hour	20.00	16.10	322.00
	Fuel / Energy charges	Hour	20.00	0.00	0.00
4	Pusher leg	Hour	20.00	11.30	226.00
	Fuel / Energy charges	Hour	20.00	0.00	0.00
5	Convey mucker	Hour	6.50	669.50	4351.75
	Fuel / Energy charges	Hour	6.50	296.00	1924.00
6	Dumper (1 x 6.5 hrs)	Hour	6.50	472.50	3071.25
	Fuel / Energy charges	Hour	6.50	524.90	3411.85
7	Pump 10 hp (ele)	Hour	5.00	5.50	27.50
	Fuel / Energy charges	Hour	5.00	85.00	425.00
8	Ventilation fans 20 hp	Hour	1.00	10.20	10.20
	Fuel / Energy charges	Hour	1.00	170.10	170.10
9	Sundries(explosive van / magazine)	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	22728.85

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling jumbo	Hour	8.00	193.40	1547.20
2	Crew for Air compressor	Hour	5.00	193.40	967.00
3	Crew for Jack hammer	Hour	20.00	362.70	7254.00
4	Crew for Convey mucker	Hour	6.50	193.40	1257.10
5	Crew for Dumper	Hour	6.50	247.10	1606.15
6	Crew for Pump	Hour	5.00	91.70	458.50
7	Crew for ventilation fans	Hour	1.00	31.60	31.60
8	Surveyor	Day	0.50	700.00	350.00
9	Foreman	Day	1.00	550.00	550.00
10	Fitter / Mechanic	Day	2.00	510.00	1020.00
11	Blaster (Licensed)	Day	1.00	550.00	550.00
12	Helper blasting	Day	2.00	440.00	880.00
13	Hammerman	Day	2.00	440.00	880.00
14	work inspector 1 in each shift	Day	3.00	500.00	1500.00
15	Khalasi for mucking shift 4 Nos	Day	4.00	490.00	1960.00
16	mazdoor				
	for mucking shift 4 Nos	Day	4.00	400.00	1600.00
	for other 2 shifts 1 No each shift	Day	2.00	400.00	800.00
	for cleaning & miscellaneous	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	24011.55

labour component/unit qty 623.70

Add contractor's profit and overhead charges

13.615% 84.90

labour component/unit qty (including contractor's profit)

708.60

ABSTRACT:

A. Cost of Materials		Rs:	8687.20
B. Hire charges of Machinery		Rs:	22728.85
C. Cost of Labour		Rs:	24011.55
	Total	Rs:	55427.60
Add for Air and Water line @	1.00%	Rs:	554.28
Add for Ventilation @	4.50%	Rs:	2494.24
Add for Lighting @	1.60%	Rs:	886.84
Add for Ele sub-station / Demand charges @	2.50%	Rs:	1385.69
	Total	Rs:	60748.65
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	8270.93
Total cost for	38.50 cum	Rs:	69019.58
Rate per cum	(A+B+C+D)/38.50	Rs:	1792.70

IRR-TAW-1-2 **Excavation for vertical / inclined shaft in all types of soft / hard rock** including cost of all materials, machinery, labour, shoring, strutting, scaling excavated surface, ventilation, lighting, drainage, removing and hauling excavated muck outside shaft upto specified dump area and all other ancillary operations etc., complete **with initial lead upto 1 km and all lifts.**

DATA

RATE ANALYSISUNIT : **30.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Small dia explosive	kg	32.00	56.48	1807.49
2	Electric detonator	Nos	65.00	9.41	611.91
3	Detonating fuse coil	Rm	50.00	7.32	366.10
4	Use rate of drill rod 1.6 m long	Rm	95.00	23.80	2261.00
5	Reconditioning charges @	10%			226.10
6	Use rate of air hose	Hour	18.00	20.50	369.00
7	Use rate of water hose	Hour	16.00	20.63	330.00
8	Use rate of rail track	Shift	3.00	127.22	381.65
9	Use rate of mucking bucket	Hour	24.00	24.01	576.17
10	Sundries(paint / template etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	6991.42

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 15 cmm (ele)	Hour	4.50	112.90	508.05
	Fuel / Energy charges	Hour	4.50	1063.10	4783.95
2	Jack hammer (4 x 4 hrs)	Hour	16.00	16.10	257.60
	Fuel / Energy charges	Hour	16.00	0.00	0.00
3	Pump 10 hp (ele)	Hour	4.00	5.50	22.00
	Fuel / Energy charges	Hour	4.00	85.00	340.00
4	Pump 20 hp electric	Hour	2.00	10.00	20.00
	Fuel / Energy charges	Hour	2.00	170.10	340.20
5	Winch 35 hp electric	Hour	28.00	105.30	2948.40
	Fuel / Energy charges	Hour	28.00	208.40	5835.20
6	Tipping tub 1.5 cum	Hour	24.00	52.20	1252.80
	Fuel / Energy charges	Hour	24.00	0.00	0.00
7	Sundries(explosive van / magazine)	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	16370.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	4.50	193.40	870.30
2	Crew for Jack hammer	Hour	16.00	362.70	5803.20
3	Crew for Pump 10 hp	Hour	4.00	91.70	366.80
4	Crew for Pump 20 hp	Hour	2.00	91.70	183.40
5	Crew for Winch	Hour	28.00	290.20	8125.60
6	Surveyor	Day	0.50	700.00	350.00
7	Foreman	Day	4.00	550.00	2200.00
8	Fitter / Mechanic	Day	2.00	510.00	1020.00
9	Blaster (Licensed)	Day	1.00	550.00	550.00
10	Helper blasting	Day	2.00	440.00	880.00
11	Hammerman 1 No. in each shift	Day	3.00	440.00	1320.00
12	work inspector 1 in each shift	Day	4.00	500.00	2000.00
13	Khalasi for mucking 2 Nos in each shift	Day	6.00	490.00	2940.00
14	mazdoor				
	for mucking 8 Nos in each shift	Day	24.00	400.00	9600.00
	for other 2 shifts 1 No / shift	Day	2.00	400.00	800.00
	for cleaning & miscellaneous	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	37809.30

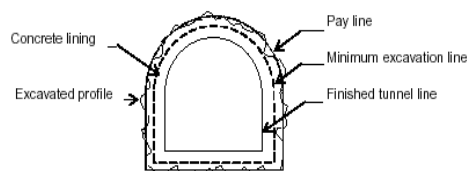
labour component/unit qty	1260.30
Add contractor's profit and overhead charges	13.615% 171.60
labour component/unit qty (including contractor's profit)	1431.90

ABSTRACT:

A. Cost of Materials		Rs:	6991.42
B. Hire charges of Machinery		Rs:	16370.20
C. Cost of Labour		Rs:	37809.30
	Total	Rs:	61170.92
Add for Air and Water line @	1.00%	Rs:	611.71
Add for Ventilation @	4.50%	Rs:	2752.69
Add for Lighting @	1.60%	Rs:	978.73
Add for Ele sub-station / Demand charges @	2.50%	Rs:	1529.27
	Total	Rs:	67043.32
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	9127.95
Total cost for	30.00 cum	Rs:	76171.27
Rate per cum	(A+B+C+D)/30.0	Rs:	2539.00

IRR-TAW-1-3 **Excavation for tunnel by tunnelling methods in rock not requiring supports** including cost of all materials, machinery, labour, scaling excavated surface, removing under-cuts, ventilation, lighting, drainage, removing and hauling the excavated muck outside tunnel upto specified dump area and all other ancillary operations etc., complete **with initial lead upto 1 km and all lifts.**

DATA:	Size of tunnel assumed (finished section)	:	4.50 m dia
	Shape of tunnel assumed for excavation	:	D - shape
	Height of tunnel assumed (finished section)	:	4.50 m
	Length of tunnel assumed	:	1000 m
	Thickness of CC lining	:	0.30 m
	Pay-line margin assumed	:	0.20 m
	Diameter of tunnel upto pay line for excavation	:	5.50 m
	Distance of dump yard from face	:within	500 m
	Haulage of excavated muck	:	By dumpers



TYPICAL CROSS SECTION OF TUNNEL 4.50 m dia.

DATA: **RATE ANALYSIS** UNIT : **48.60 cum**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Small dia explosive	kg	54.00	56.48	3050.14
2	Delay detonators	Nos	68.00	16.74	1138.05
3	Electric detonators	Nos	10.00	9.41	94.14
4	Detonating fuse coil	Rm	50.00	7.32	366.10
5	Use rate of drill rod 2.5 m long	Rm	150.00	37.00	5550.00
	Reconditioning charges @	10%			555.00
6	Use rate of air hose	Hour	24.00	5.13	123.00
7	Use rate of water hose	Hour	24.00	5.16	123.75
8	Sundries(paint / template etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	11062.17

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling jumbo	Hour	10.00	299.70	2997.00
	Fuel / Energy charges	Hour	10.00	56.20	562.00
2	Air compressor 15 cmm (ele)	Hour	6.50	112.90	733.85
	Fuel / Energy charges	Hour	6.50	1063.10	6910.15
3	Jack hammer (4 x 6.5 hrs)	Hour	26.00	16.10	418.60
	Fuel / Energy charges	Hour	26.00	0.00	0.00
4	Pusher leg	Hour	26.00	11.30	293.80
	Fuel / Energy charges	Hour	26.00	0.00	0.00
5	Convey mucker	Hour	6.00	669.50	4017.00
	Fuel / Energy charges	Hour	6.00	296.00	1776.00
6	Dumper (2 x 6 hrs)	Hour	12.00	472.50	5670.00
	Fuel / Energy charges	Hour	12.00	524.90	6298.80
7	Pump 10 hp (ele)	Hour	6.50	5.50	35.75
	Fuel / Energy charges	Hour	6.50	85.00	552.50
8	Ventilation fans 20 hp	Hour	2.00	10.20	20.40
	Fuel / Energy charges	Hour	2.00	170.10	340.20
9	Sundries(explosive van / magazine)	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	30688.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling jumbo	Hour	10.00	193.40	1934.00
2	Crew for Air compressor	Hour	6.50	193.40	1257.10
3	Crew for Jack hammer	Hour	26.00	362.70	9430.20
4	Crew for Convey mucker	Hour	6.00	193.40	1160.40
5	Crew for Dumper	Hour	12.00	247.10	2965.20
6	Crew for Pump	Hour	6.50	91.70	596.05
7	Crew for ventilation fans	Hour	2.00	31.60	63.20
8	Surveyor	Day	0.50	700.00	350.00
9	Foreman	Day	1.00	550.00	550.00
10	Fitter / Mechanic	Day	2.00	510.00	1020.00
11	Blaster (Licensed)	Day	1.00	550.00	550.00
12	Helper blasting	Day	2.00	440.00	880.00
13	Hammerman	Day	2.00	440.00	880.00
14	work inspector 1 in each shift	Day	3.00	500.00	1500.00
15	Khalasi for mucking shift 4 Nos	Day	4.00	490.00	1960.00
16	mazdoor				
	for mucking shift 8 Nos	Day	8.00	400.00	3200.00
	for other 2 shifts 1 No each shift	Day	2.00	400.00	800.00
	for cleaning & miscellaneous	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	29896.15

labour component/unit qty 615.10
 Add contractor's profit and overhead charges 13.615% 83.70
 labour component/unit qty (including contractor's profit) **698.80**

ABSTRACT:

A. Cost of Materials		Rs:	11062.17
B. Hire charges of Machinery		Rs:	30688.05
C. Cost of Labour		Rs:	29896.15
	Total	Rs:	71646.37
Add for Air and Water line @ 1.00%		Rs:	716.46
Add for Ventilation @ 4.50%		Rs:	3224.09
Add for Lighting @ 1.60%		Rs:	1146.34
Add for Ele sub-station / Demand charges @ 2.50%		Rs:	1791.16
	Total	Rs:	78524.43
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	10691.10
Total cost for	48.60 cum	Rs:	89215.53
Rate per cum	(A+B+C+D)/48.60	Rs:	1835.70

IRR-TAW-1-4 **Excavation for tunnel by tunnelling methods including excavation for supports in all types of soil / rock strata requiring supports (excluding cost of providing supports)** including cost of all other materials, machinery, labour, scaling excavated surface, ventilation, lighting, drainage, removing and hauling the excavated muck outside tunnel upto specified dump area and all other ancillary operations etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSISUNIT : **46.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Small dia explosive	kg	41.00	56.48	2315.84
2	Delay detonators	Nos	77.00	16.74	1288.67
3	Electric detonators	Nos	10.00	9.41	94.14
4	Detonating fuse coil	Rm	50.00	7.32	366.10
5	Use rate of drill rod 2.5 m long	Rm	144.00	37.00	5328.00
	Reconditioning charges @ 10%				532.80
6	Use rate of air hose	Hour	24.00	5.13	123.00
7	Use rate of water hose	Hour	24.00	5.16	123.75
8	Sundries(paint / template etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	10234.31

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling jumbo	Hour	11.00	299.70	3296.70
	Fuel / Energy charges	Hour	11.00	56.20	618.20
2	Air compressor 15 cmm (ele)	Hour	6.00	112.90	677.40
	Fuel / Energy charges	Hour	6.00	1063.10	6378.60
3	Jack hammer (4 x 6 hrs)	Hour	24.00	16.10	386.40
	Fuel / Energy charges	Hour	24.00	0.00	0.00
4	Pusher leg	Hour	24.00	11.30	271.20
	Fuel / Energy charges	Hour	24.00	0.00	0.00
5	Convey mucker	Hour	6.00	669.50	4017.00
	Fuel / Energy charges	Hour	6.00	296.00	1776.00
6	Dumper (2 x 6 hrs)	Hour	12.00	472.50	5670.00
	Fuel / Energy charges	Hour	12.00	524.90	6298.80
7	Pump 10 hp (ele)	Hour	6.00	5.50	33.00
	Fuel / Energy charges	Hour	6.00	85.00	510.00
8	Ventilation fans 20 hp	Hour	2.00	10.20	20.40
	Fuel / Energy charges	Hour	2.00	170.10	340.20
9	Sundries(explosive van / magazine)	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	30355.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling jumbo	Hour	11.00	193.40	2127.40
2	Crew for Air compressor	Hour	6.00	193.40	1160.40
3	Crew for Jack hammer	Hour	24.00	362.70	8704.80
4	Crew for Convey mucker	Hour	6.00	193.40	1160.40
5	Crew for Dumper	Hour	12.00	247.10	2965.20
6	Crew for Pump	Hour	6.00	91.70	550.20
7	Crew for ventilation fans	Hour	2.00	31.60	63.20
8	Surveyor	Day	0.50	700.00	350.00
9	Foreman	Day	1.00	550.00	550.00
10	Fitter / Mechanic	Day	2.00	510.00	1020.00
11	Blaster (Licensed)	Day	1.00	550.00	550.00
12	Helper blasting	Day	2.00	440.00	880.00
13	Hammerman 2 Nos	Day	2.00	440.00	880.00
14	work inspector 1 in each shift	Day	3.00	500.00	1500.00
15	Khalasi for mucking shift 4 Nos	Day	4.00	490.00	1960.00
16	mazdoor for mucking shift 8 Nos	Day	8.00	400.00	3200.00
	for other 2 shifts 1 No each shift	Day	2.00	400.00	800.00
	for cleaning & miscellaneous	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	29221.60

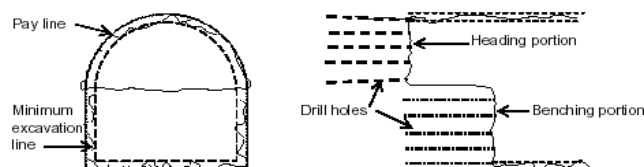
labour component/unit qty 635.30
 Add contractor's profit and overhead charges 13.615% 86.50
 labour component/unit qty (including contractor's profit) **721.80**

ABSTRACT:

A. Cost of Materials	Rs:	10234.31
B. Hire charges of Machinery	Rs:	30355.90
C. Cost of Labour	Rs:	29221.60
Total	Rs:	69811.81

Add for Air and Water line @	1.00%	Rs:	698.12
Add for Ventilation @	4.50%	Rs:	3141.53
Add for Lighting @	1.60%	Rs:	1116.99
Add for Ele sub-station / Demand charges @	2.50%	Rs:	1745.30
		Total	Rs: 76513.74
D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	10417.35
Total cost for	46.00 cum	Rs:	86931.08
Rate per cum	(A+B+C+D)/46.0	Rs:	1889.80

IRR-TAW-1-5 **Excavation for tunnel by heading and benching tunnelling methods including excavation for supports in all types of soil / rock strata requiring supports (excluding cost of providing supports) for roof before benching including cost of all other materials, machinery, labour, scaling excavated surface, ventilation, lighting, drainage removing and hauling excavated muck outside tunnel upto specified dump area and all other ancillary operations etc., complete with initial lead upto 1 km and all lifts.**



TYPICAL CROSS SECTION OF TUNNEL FOR HEADING & BENCHING

50.00 cum

DATA:

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Small dia explosive	kg	44.00	56.48	2485.30
2	Delay detonators	Nos	84.00	16.74	1405.82
3	Electric detonator	Nos	10.00	9.41	94.14
4	Detonating fuse coil	Rm	50.00	7.32	366.10
5	Use rate of drill rod 2.5 m long	Rm	157.00	37.00	5809.00
	Reconditioning charges @	10%			580.90
6	Use rate of air hose	Hour	26.00	5.13	133.25
7	Use rate of water hose	Hour	26.00	5.16	134.06
8	Sundries(paint / template etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	11070.57

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling jumbo	Hour	12.00	299.70	3596.40
	Fuel / Energy charges	Hour	12.00	56.20	674.40
2	Air compressor 15 cmm (ele)	Hour	6.50	112.90	733.85
	Fuel / Energy charges	Hour	6.50	1063.10	6910.15
3	Jack hammer (4 x 6.5 hrs)	Hour	26.00	16.10	418.60
	Fuel / Energy charges	Hour	26.00	0.00	0.00
4	Pusher leg	Hour	26.00	11.30	293.80
	Fuel / Energy charges	Hour	26.00	0.00	0.00
5	Convey mucker	Hour	6.50	669.50	4351.75
	Fuel / Energy charges	Hour	6.50	296.00	1924.00
6	Dumper (2 x 6.5 hrs)	Hour	13.00	472.50	6142.50
	Fuel / Energy charges	Hour	13.00	524.90	6823.70
7	Pump 10 hp (ele)	Hour	6.50	5.50	35.75
	Fuel / Energy charges	Hour	6.50	85.00	552.50
8	Ventilation fans 20 hp	Hour	3.00	10.20	30.60
	Fuel / Energy charges	Hour	3.00	170.10	510.30
9	Sundries(explosive van / magazine)	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	33060.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling jumbo	Hour	12.00	193.40	2320.80
2	Crew for Air compressor	Hour	6.50	193.40	1257.10
3	Crew for Jack hammer	Hour	26.00	362.70	9430.20
4	Crew for Convey mucker	Hour	6.50	193.40	1257.10
5	Crew for Dumper	Hour	13.00	247.10	3212.30
6	Crew for Pump	Hour	6.50	91.70	596.05
7	Crew for Ventilation fan	Hour	3.00	31.60	94.80
8	Surveyor	Day	0.50	700.00	350.00
9	Foreman	Day	1.00	550.00	550.00
10	Fitter / Mechanic	Day	2.00	510.00	1020.00
11	Blaster (Licensed)	Day	2.00	550.00	1100.00
12	Helper blasting	Day	4.00	440.00	1760.00
13	Hammerman 2 Nos	Day	2.00	440.00	880.00
14	work inspector 1 in each shift	Day	3.00	500.00	1500.00
15	Khalasi				
	for pushing muck in heading portion	Day	4.00	490.00	1960.00
	for mucking shift 4 Nos	Day	4.00	490.00	1960.00
16	mazdoor				
	for mucking shift 8 Nos	Day	8.00	400.00	3200.00
	for other 2 shifts 1 No each shift	Day	2.00	400.00	800.00
	for cleaning & miscellaneous	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	34048.35

labour component/unit qty 681.00

Add contractor's profit and overhead charges 13.615% 92.70

labour component/unit qty (including contractor's profit) **773.70****ABSTRACT:**

A. Cost of Materials		Rs:	11070.57
B. Hire charges of Machinery		Rs:	33060.30
C. Cost of Labour		Rs:	34048.35
	Total	Rs:	78179.22
Add for Air and Water line @	1.00%	Rs:	781.79
Add for Ventilation @	4.50%	Rs:	3518.07
Add for Lighting @	1.60%	Rs:	1250.87
Add for Ele sub-station / Demand charges @	2.50%	Rs:	1954.48
	Total	Rs:	85684.43
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	11665.93
Total cost for	50.00 cum	Rs:	97350.36
Rate per cum	(A+B+C+D)/50.0	Rs:	1947.00

NOTE: Where mucking is to be carried out through shaft using winch and mucking tub system increase the basic rates for items IRR-TAW-1-3, IRR-TAW-1-4 & IRR-TAW-1-5 by 8 percent.

IRR-TAW-1-6 **Removing and hauling muck** overfallen due to natural causes such as geological faults etc., out of tunnel including breaking large fragments by blasting if necessary and disposing off the same in specified dump area or as directed including cost of all materials, machinery, labour, ventilation, drainage, lighting and all other ancillary operations etc., complete **with initial lead upto 1 km and all lifts.**

DATA

RATE ANALYSISUNIT : **100.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod	Rm	15.00	23.80	357.00
	Reconditioning charges @	10%			35.70
2	Explosive small dia.	kg	8.00	56.48	451.87
3	Detonator (ele)	Nos.	30.00	9.41	282.42
4	Detonating fuse coil	Rm	20.00	7.32	146.44
5	Use rate of air hose	Hour	4.00	5.13	20.50
6	Use rate of water hose	Hour	4.00	5.16	20.63
7	Sundries	LS	1.00	31.00	31.00
Total cost of Materials				Rs:	1345.56

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 15 cmm (ele)	Hour	1.00	112.90	112.90
	Fuel / Energy charges	Hour	1.00	1063.10	1063.10
2	Jack hammer	Hour	4.00	16.10	64.40
	Fuel / Energy charges	Hour	4.00	0.00	0.00
3	Pump 10 hp (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
4	Convey mucker	Hour	6.00	669.50	4017.00
	Fuel / Energy charges	Hour	6.00	296.00	1776.00
5	Dumper 4.5 cum	Hour	12.00	472.50	5670.00
	Fuel / Energy charges	Hour	12.00	524.90	6298.80
6	Sundries	LS	1.00	31.00	31.00
Total hire charges of Machinery				Rs:	19123.70

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	1.00	193.40	193.40
2	Crew for Jack hammer	Hour	4.00	362.70	1450.80
3	Crew for Pump	Hour	1.00	91.70	91.70
4	Crew for Convey mucker	Hour	6.00	193.40	1160.40
5	Crew for Dumper	Hour	12.00	247.10	2965.20
6	Blaster (Licensed)	Day	0.50	550.00	275.00
7	Helper blasting	Day	0.50	440.00	220.00
8	mazdoor	Day	8.00	400.00	3200.00
Total cost of Labour				Rs:	9556.50

labour component/unit qty 95.60

Add contractor's profit and overhead charges 13.615% 13.00

labour component/unit qty (including contractor's profit) **108.60****ABSTRACT:**

A. Cost of Materials	Rs:	1345.56
B. Hire charges of Machinery	Rs:	19123.70
C. Cost of Labour	Rs:	9556.50
Total	Rs:	30025.76
Add for Air and Water line @	1.00%	Rs: 300.26
Add for Ventilation @	4.50%	Rs: 1351.16
Add for Lighting @	1.60%	Rs: 480.41
Add for Ele sub-station / Demand charges @	2.50%	Rs: 750.64
Total	Rs:	32908.23
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs: 4480.46
Total cost for	100.00 cum	Rs: 37388.69
Rate per cum	(A+B+C+D)/100.0	Rs: 373.90

IRR_TAW-2 DEWATERING & GUNTING WORKS :

IRR-TAW-2-1 **Dewatering tunnel by pumping out water collected by natural drainage inside tunnel** including providing sump wherever necessary, cost of all materials, machinery, labour, drainage, lighting, ventilation and all other ancillary operations etc., complete.

DATA

RATE ANALYSISUNIT : **15.00 Kwhr****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of G.I. pipe 100 mm dia	Hour	1.00	7.35	7.35
2	Sundries	LS	0.10	31.00	3.10
Total cost of Materials				Rs:	10.45

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Electric pump 20 hp	Hour	1.00	10.00	10.00
2	Fuel / Energy charges	Hour	1.00	170.10	170.10
3	Sundries (Starter/Switches etc)	LS	0.10	31.00	3.10
Total hire charges of Machinery				Rs:	183.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew charges for Pump	Hour	1.00	91.70	91.70
2	Laying & dismantling pipe	LS	0.05	31.00	1.55
3	mazdoor	Day	0.10	400.00	40.00
Total cost of Labour				Rs:	133.25

labour component/unit qty	8.90
Add contractor's profit and overhead charges	13.615% 1.20
labour component/unit qty (including contractor's profit)	<u>10.10</u>

ABSTRACT:

A. Cost of Materials		Rs:	10.45
B. Hire charges of Machinery		Rs:	183.20
C. Cost of Labour		Rs:	133.25
	Total	Rs:	<u>326.90</u>
Add for Air and Water line @	1.00%	Rs:	3.27
Add for Ventilation @	4.50%	Rs:	14.71
Add for Lighting @	1.60%	Rs:	5.23
Add for Ele sub-station / Demand charges @	2.50%	Rs:	8.17
	Total	Rs:	<u>358.28</u>
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	48.78
Total cost for	15.00 Kwhr	Rs:	407.06
Rate per Kwhr	(A+B+C+D)/15.0	Rs:	27.10

IRR-TAW-2-2 **Providing 25 mm thick guniting to sides and arch of tunnel in cement mortar 1 : 3 proportion**
by weight including cost of all materials, machinery, labour, ventilation, lighting, drainage
and all other ancillary operations etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSISUNIT : **36.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	600.00	3.88	2329.20
2	Sand (Screened)	cum	1.10	182.00	200.20
3	Use rate of grout hose 20 m	Hour	8.00	5.13	41.00
4	Use rate of water hose 20 m	Hour	8.00	5.16	41.25
5	Use rate of guniting nozzle	Hour	8.00	3.10	24.80
6	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	2698.45

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Guniting equipment	Hour	8.00	97.70	781.60
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	Air compressor 8.5 cmm (ele)	Hour	8.00	139.00	1112.00
	Fuel / Energy charges	Hour	8.00	478.40	3827.20
3	Pump 10 hp (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
4	Drilling jumbo	Hour	4.00	299.70	1198.80
	Fuel / Energy charges	Hour	4.00	56.20	224.80
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	7296.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Guniting equipment	Hour	8.00	241.80	1934.40
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for pump	Hour	1.00	91.70	91.70
4	Crew for Drilling jumbo	Hour	4.00	193.40	773.60
5	Mason Cl I	Day	1.00	475.00	475.00
6	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	7125.90

labour component/unit qty	197.90
Add contractor's profit and overhead charges	13.615% 26.90
labour component/unit qty (including contractor's profit)	<u>224.80</u>

ABSTRACT:

A. Cost of Materials		Rs:	2698.45
B. Hire charges of Machinery		Rs:	7296.90
C. Cost of Labour		Rs:	7125.90
	Total	Rs:	<u>17121.25</u>
Add for Air and Water line @	1.00%	Rs:	171.21
Add for Ventilation @	4.50%	Rs:	770.46
Add for Lighting @	1.60%	Rs:	273.94
Add for Ele sub-station / Demand charges @	2.50%	Rs:	428.03
	Total	Rs:	<u>18764.89</u>

D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	2554.84
Lead Charges for 1 Km for FA	1.10 cum @ 32.4 Rs./Cum		35.64
Total cost for	36.00 sqm	Rs:	21355.37
Rate per sqm	(A+B+C+D)/36.0	Rs:	593.20

IRR-TAW-2-3 **Shortcreting in two layers (each layer+38 mm thickness) for slabs** duly fixing chain weld wire mesh

(new4 - 2011-12)

100 x 100x5 mm in between the two layers including cost and conveyance of all materials, labour charges, all heads, lifts, centering, scaffolding, machine mixing, laying concrete with shortcrete machine etc. complete **as per specification and as directed by Engineer-in-Charge**

Data

RATE ANALYSIS

UNIT : **36.00 sqm**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	1548.00	3.88	6009.34
2	Sand (Screened)	cum	2.41	182.00	438.62
3	Coarse aggregate 10-4.75 mm size	cum	1.03	860.00	885.80
4	Use rate of grout hose 20 m	Hour	8.00	5.13	41.00
5	Use rate of water hose 20 m	Hour	8.00	5.16	41.25
6	Use rate of guniting nozzle	Hour	8.00	3.10	24.80
7	Welded steel wire fabric 100 x 100 x 5 m	kg	108.00	168.00	18144.00
8	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	25646.81

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Guniting equipment	Hour	8.00	97.70	781.60
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	Air compressor 8.5 cmm (ele)	Hour	8.00	139.00	1112.00
	Fuel / Energy charges	Hour	8.00	478.40	3827.20
3	Pump 10 hp (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
4	Drilling jumbo	Hour	4.00	299.70	1198.80
	Fuel / Energy charges	Hour	4.00	56.20	224.80
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	7296.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Guniting equipment	Hour	8.00	241.80	1934.40
2	Crew for Air compressor	Hour	8.00	181.40	1451.20
3	Crew for pump	Hour	1.00	91.70	91.70
4	Crew for Drilling jumbo	Hour	4.00	193.40	773.60
5	Mason CI I	Day	1.00	475.00	475.00
6	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	7125.90

labour component/unit qty	197.90
Add contractor's profit and overhead charges	13.615% 26.90
labour component/unit qty (including contractor's profit)	224.80

ABSTRACT:

A. Cost of Materials	Rs:	25646.81
B. Hire charges of Machinery	Rs:	7296.90
C. Cost of Labour	Rs:	7125.90
	Total	Rs: 40069.61
Add for Air and Water line @	1.00%	Rs: 400.70
Add for Ventilation @	4.50%	Rs: 1803.13
Add for Lighting @	1.60%	Rs: 641.11
Add for Ele sub-station / Demand charges @	2.50%	Rs: 1001.74
	Total	Rs: 43916.29

D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	5979.20
Lead Charges for 1 Km for FA	2.41 cum @ 32.4 Rs./Cum		78.084
Lead Charges for 1 Km for CA	1.03 cum @ 31.5 Rs./Cum		32.445
Total cost for	36.00 sqm	Rs:	50006.02
Rate per sqm	(A+B+C+D)/36.0	Rs:	1389.10

IRR_TAW-3 **TEMPORARY & PERMANENT SUPPORTS :**

IRR-TAW-3-1 Providing and **fixing 25 mm diameter steel rock bolts with mechanical / wedge type anchorage** including drilling 35 mm dia holes, providing 15 cm long 20 mm thick steel tapered wedge, 10 mm thick plate washers and nuts, tightening bolt by torque wrench, cost of all materials, machinery, labour, ventilation, lighting, drainage and all other ancillary operations etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSISUNIT : **20.00 Rm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rein.Steel with 5 % wastage	kg	86.91	42.00	3650.38
2	Steel plate for washers	kg	65.94	41.20	2716.73
	Steel plate for wedges	kg	6.18	41.20	254.69
3	M S Nuts for bolts	kg	4.00	68.00	272.00
4	Use rate of drill rod	Rm	20.00	37.00	740.00
	Reconditioning charges @	10%			74.00
5	Use rate of air hose 4 Nos	Hour	6.00	5.13	30.75
6	Use rate of water hose 4 Nos	Hour	6.00	5.16	30.94
7	Sundries (gas for cutting / heating etc)	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	7924.49

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 15 cmm (ele)	Hour	1.50	112.90	169.35
	Fuel / Energy charges	Hour	1.50	1063.10	1594.65
2	Pump 10 hp (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
3	Jack hammer	Hour	6.00	16.10	96.60
	Fuel / Energy charges	Hour	6.00	0.00	0.00
4	Pusher leg	Hour	6.00	11.30	67.80
	Fuel / Energy charges	Hour	6.00	0.00	0.00
5	Drilling jumbo	Hour	4.00	299.70	1198.80
	Fuel / Energy charges	Hour	4.00	56.20	224.80
6	Sundries (lathe, blower etc)	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	3597.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	1.50	193.40	290.10
2	Crew for pump	Hour	1.00	91.70	91.70
3	Crew for Jack hammer	Hour	6.00	362.70	2176.20
4	Crew for Drilling jumbo	Hour	4.00	193.40	773.60
5	Fitter	Day	0.50	510.00	255.00
6	Gas cutter	Day	1.00	490.00	490.00
7	Turner	Day	1.00	550.00	550.00
8	Blacksmith	Day	1.00	475.00	475.00
9	Khalasi (2 x 0.5)	Day	1.00	490.00	490.00
10	Hammerman	Day	0.50	440.00	220.00
11	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	6611.60

labour component/unit qty 330.60

Add contractor's profit and overhead charges 13.615% 45.00

labour component/unit qty (including contractor's profit) **375.60****ABSTRACT:**

A. Cost of Materials		Rs:	7924.49
B. Hire charges of Machinery		Rs:	3597.50
C. Cost of Labour		Rs:	6611.60
	Total	Rs:	18133.59
Add for Air and Water line @	1.00%	Rs:	181.34
Add for Ventilation @	4.50%	Rs:	816.01
Add for Lighting @	1.60%	Rs:	290.14
Add for Ele sub-station / Demand charges @	2.50%	Rs:	453.34
	Total	Rs:	19874.41
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	2705.90
Lead Charges for 1Km for Steel (including Loading and Unloading Charges)	0.16 tonne @	190.3 Rs./Tonne	30.26447944
Total cost for	20.00 Rm	Rs:	22610.58
Rate per Rm	(A+B+C+D)/20.0	Rs:	1130.50

IRR-TAW-3-2 Providing and **fixing 25 mm diameter steel rock bolts with resin bond cement capsule**

anchorage including drilling 35 mm dia holes, inserting grout capsule, driving bolt, fixing 10 mm thick plate washers and nuts and tightening the same by torque wrench after hardening of cement grout, cost of all materials, machinery, labour, ventilation, lighting, drainage and other ancillary operations etc., **complete with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

20.00 Rm**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rein.Steel with 5 % wastage	kg	86.91	42.00	3650.38
2	Steel plate for washers	kg	65.94	41.20	2716.73
3	Resin bond cement grout capsule	Nos.	2.00	41.20	82.40
4	M S Nuts for bolts	kg	4.00	68.00	272.00
5	Use rate of drill rod	Rm	20.00	37.00	740.00
	Reconditioning charges @	10%			74.00
6	Use rate of air hose 4 Nos	Hour	6.00	5.13	30.75
7	Use rate of water hose 4 Nos	Hour	6.00	5.16	30.94
8	Sundries(gas for cutting etc)	LS	3.00	31.00	93.00
Total cost of Materials				Rs:	7690.19

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 15 cmm (ele)	Hour	1.50	112.90	169.35
	Fuel / Energy charges	Hour	1.50	1063.10	1594.65
2	Pump 10 hp (ele)	Hour	1.00	5.50	5.50
	Fuel / Energy charges	Hour	1.00	85.00	85.00
3	Jack hammer	Hour	6.00	16.10	96.60
	Fuel / Energy charges	Hour	6.00	0.00	0.00
4	Pusher leg	Hour	6.00	11.30	67.80
	Fuel / Energy charges	Hour	6.00	0.00	0.00
5	Drilling jumbo	Hour	4.00	299.70	1198.80
	Fuel / Energy charges	Hour	4.00	56.20	224.80
6	Sundries (lathe, etc)	LS	3.00	31.00	93.00
Total hire charges of Machinery				Rs:	3535.50

C. LABOUR:

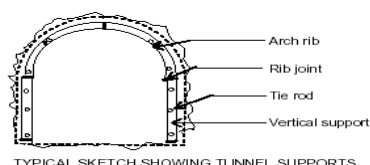
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	1.50	193.40	290.10
2	Crew for pump	Hour	1.00	91.70	91.70
3	Crew for Jack hammer	Hour	6.00	362.70	2176.20
4	Crew for Drilling jumbo	Hour	4.00	193.40	773.60
5	Fitter	Day	0.50	440.00	220.00
6	Gas cutter	Day	1.00	490.00	490.00
7	Turner	Day	1.00	550.00	550.00
8	Khalasi (2 x 0.5)	Day	1.00	490.00	490.00
9	Hammerman	Day	0.50	440.00	220.00
10	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	6101.60

labour component/unit qty	305.10
Add contractor's profit and overhead charges	13.615% 41.50
labour component/unit qty (including contractor's profit)	346.60

ABSTRACT:

A. Cost of Materials		Rs:	7690.19
B. Hire charges of Machinery		Rs:	3535.50
C. Cost of Labour		Rs:	6101.60
		Total	Rs: 17327.29
Add for Air and Water line @	1.00%	Rs:	173.27
Add for Ventilation @	4.50%	Rs:	779.73
Add for Lighting @	1.60%	Rs:	277.24
Add for Ele sub-station / Demand charges @	2.50%	Rs:	433.18
		Total	Rs: 18990.71
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	2585.59
Lead Charges for 1Km for Steel (including Loading and Unloading Charges)	0.15 tonne @ 190.3 Rs./Tonne		29.08806863
Total cost for	20.00 Rm	Rs:	21605.39
Rate per Rm	(A+B+C+D)/20.0	Rs:	1080.30

IRR-TAW-3-3 Providing, fabricating and **fixing in position permanent structural steel supports as per details** including cost of all materials, machinery, labour, cutting, bending, welding, grinding, lighting, ventilation, drainage and all other ancillary operations etc., complete **with initial lead upto 1 km and all lifts.**



Data

RATE ANALYSIS

UNIT :

1.00 tonne**A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel beams	kg	760.00	41.30	31388.00
2	Structural steel plates	kg	115.00	41.20	4738.00
3	Steel bars for tie rods & anchors	kg	150.00	42.00	6300.00
4	For cutting sections:				
	Oxygen gas @ 2.4 cum / t	cum	2.40	36.00	86.40
	Acetylene gas @ 0.8 cum / t	cum	0.80	293.00	234.40
5	For welding sections:				
	Electrodes 4 x 300 mm @ 125 Nos / t	Nos.	125.00	11.00	1375.00
6	For field connections:				
	M.S.Bolts / Nuts & Washers	kg	50.00	68.00	3400.00
7	Sundries	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	47676.80

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Bending machine	Hour	8.00	37.80	302.40
	Fuel / Energy charges	Hour	8.00	127.60	1020.80
2	Welding set	Hour	16.00	14.10	225.60
	Fuel / Energy charges	Hour	16.00	102.10	1633.60
3	Drilling Jumbo	Hour	12.00	299.70	3596.40
	Fuel / Energy charges	Hour	12.00	56.20	674.40
4	Sundries (lathe / drilling / grinder)	LS	30.00	31.00	930.00
Total hire charges of Machinery				Rs:	8383.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling Jumbo	Hour	12.00	193.40	2320.80
2	Crew fir Bending machine	Hour	8.00	145.10	1160.80
3	For cutting & preparing sections:				
	Structural steel Marker	Day	1.00	595.00	595.00
	Gas cutter	Day	2.00	490.00	980.00
	Fitter	Day	2.00	510.00	1020.00
	Turner / Driller	Day	3.00	550.00	1650.00
	Khalasi	Day	2.00	490.00	980.00
	Helper fabrication	Day	4.00	440.00	1760.00
4	For welding sections:				
	Welder	Day	2.00	490.00	980.00
	Helper fabrication	Day	2.00	440.00	880.00
	Khalasi	Day	2.00	490.00	980.00
5	For erection of supports:				
	Foreman	Day	1.00	550.00	550.00
	Structural steel Erector	Day	2.00	595.00	1190.00
	Helper erector	Day	2.00	440.00	880.00
	Khalasi	Day	4.00	490.00	1960.00
Total cost of Labour				Rs:	17886.60

labour component/unit qty 17886.60

Add contractor's profit and overhead charges 13.615% 2435.30

labour component/unit qty (including contractor's profit) **20321.90****ABSTRACT:**

A. Cost of Materials	Rs:	47676.80
B. Hire charges of Machinery	Rs:	8383.20
C. Cost of Labour	Rs:	17886.60
	Total	Rs: 73946.60
Add for Air and Water line @	1.00%	Rs: 739.47
Add for Ventilation @	4.50%	Rs: 3327.60
Add for Lighting @	1.60%	Rs: 1183.15

Add for Ele sub-station / Demand charges @	2.50%	Rs:	1848.67
		Total Rs:	81045.47
D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	11034.34
Lead Charges for 1Km for Steel (including Loading and Unloading Charges)	1.03 tonne @ 190.3 Rs./Tonne		195.0575
Total cost for	1.00 tonne	Rs:	92274.87
Rate per tonne	(A+B+C+D)/1.0	Rs:	92274.90

IRR-TAW-3-4 Providing, fabricating and **fixing in position temporary structural steel supports as per details** and dismantling the same before concreting including cost of all materials, machinery, labour, cutting, bending, welding, grinding, ventilation, lighting, drainage and all other ancillary operations etc., complete **with initial lead upto 1 km and all lifts.**

DATA

RATE ANALYSISUNIT : **1.00 tonne****A. MATERIALS (for 20 uses):**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel beams	kg	760.00	41.30	31388.00
2	Structural steel plates	kg	115.00	41.20	4738.00
3	Tie rods & anchors	kg	150.00	42.00	6300.00
4	For cutting sections:				
	Oxygen gas @ 2.40 cum / t	cum	2.40	36.00	86.40
	Acetylene @ 0.8 cum / t	cum	0.80	293.00	234.40
5	For welding sections:				
	Electrodes @ 125 Nos / t	Nos.	125.00	11.00	1375.00
6	For field connections:				
	M.S.Bolts / Nuts / Washers	kg	50.00	68.00	3400.00
7	Sundries	LS	20.00	31.00	620.00
Total cost of Materials for 20 uses of supports				Rs:	48141.80
Cost per use considering 20 uses				Rs:	2407.09

B. MACHINERY (for fabrication):

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Bending machine	Hour	8.00	37.80	302.40
	Fuel / Energy charges	Hour	8.00	127.60	1020.80
2	Welding set	Hour	16.00	14.10	225.60
	Fuel / Energy charges	Hour	16.00	102.10	1633.60
3	Sundries	LS	30.00	31.00	930.00
Total hire charges of Machinery				Rs:	4112.40
Cost per use considering 20 uses				Rs:	205.62

B. MACHINERY (for erection and dismantling):

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling Jumbo	Hour	18.00	299.70	5394.60
	Fuel / Energy charges	Hour	18.00	56.20	1011.60
2	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs:	6716.20

C. LABOUR (for fabrication):

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Bending machine	Hour	8.00	145.10	1160.80
2	For cutting & preparing sections:				
	Structural steel Marker	Day	1.00	595.00	595.00
	Gas cutter	Day	2.00	490.00	980.00
	Fitter	Day	2.00	510.00	1020.00
	Turner / Driller	Day	3.00	550.00	1650.00
	Khalasi	Day	2.00	490.00	980.00
	Helper fabrication	Day	4.00	440.00	1760.00
3	For welding sections:				
	Welder	Day	2.00	490.00	980.00
	Helper fabrication	Day	2.00	440.00	880.00
	Khalasi	Day	2.00	490.00	980.00
Total cost of Labour				Rs:	10985.80
Cost per use considering 20 uses				Rs:	549.29

C. LABOUR (for erection):

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling jumbo	Hour	8.00	193.40	1547.20
2	For erection of supports:				
	Foreman	Day	1.00	550.00	550.00
	Structural steel Erector	Day	2.00	595.00	1190.00
	Helper erector	Day	2.00	440.00	880.00
	Khalasi	Day	4.00	490.00	1960.00
3	For dismantling of supports:				
	Foreman	Day	0.50	550.00	275.00
	Structural steel Erector	Day	1.00	595.00	595.00
	Helper erector	Day	1.00	440.00	440.00
	Khalasi	Day	2.00	490.00	980.00
Total cost of Labour				Rs:	8417.20

labour component/unit qty 8966.50
 Add contractor's profit and overhead charges 13.615% 1220.80
 labour component/unit qty (including contractor's profit) **10187.30**

ABSTRACT:

A. Cost of Materials		Rs:	2407.09
B. Hire charges of Machinery for fabrication		Rs:	205.62
C. Hire charges of Machinery for erection and dismantling		Rs:	6716.20
D. Cost of Labour for fabrication		Rs:	549.29
E. Cost of Labour for erection and dismantling		Rs:	8417.20
	Total	Rs:	18295.40
Add for Air and Water line @	1.00%	Rs:	182.95
Add for Ventilation @	4.50%	Rs:	823.29
Add for Lighting @	1.60%	Rs:	292.73
Add for Ele sub-station / Demand charges @	2.50%	Rs:	457.39
	Total	Rs:	20051.76
D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	2730.05
Lead Charges for 1Km for Steel (including Loading and Unloading Charges)	1.03 tonne @ 190.3 Rs./Tonne		195.0575
Total cost for	1.00 tonne	Rs:	22976.86
Rate per tonne	(A+B+C+D)/1.0	Rs:	22976.90

IRR-TAW-3-5 Providing and fixing hard variety cut jungle wood for lagging / blocking locations in tunnel wherever required including cost of all materials, machinery, labour, fixing in position, lighting, ventilation, drainage etc complete with all leads and lifts.

DATA:

RATE ANALYSISUNIT : **1.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cut jungle wood	cum	1.05	17855.00	18747.75
2	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	18809.75

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling jumbo	Hour	2.00	299.70	599.40
	Fuel / Energy charges	Hour	2.00	56.20	112.40
Total hire charges of Machinery				Rs:	711.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling jumbo	Hour	2.00	193.40	386.80
2	Carpenter CI II	Day	1.00	440.00	440.00
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	1626.80

labour component/unit qty 1626.80
 Add contractor's profit and overhead charges 13.615% 221.50
 labour component/unit qty (including contractor's profit) **1848.30**

ABSTRACT:

A. Cost of Materials		Rs:	18809.75
B. Hire charges of Machinery		Rs:	711.80
C. Cost of Labour		Rs:	1626.80
	Total	Rs:	21148.35
Add for Air and Water line @	1.00%	Rs:	211.48
Add for Ventilation @	4.50%	Rs:	951.68

Add for Lighting @	1.60%	Rs:	338.37
Add for Ele sub-station / Demand charges @	2.50%	Rs:	528.71
		Total	Rs: 23178.59
D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	3155.77
Total cost for	1.00 cum	Rs:	26334.36
Rate per cum	(A+B+C+D)/1.0	Rs:	26334.40

IRR_TAW-4 **MASONRY WORKS :**

IRR-TAW-4-1 Providing and **constructing un-coursed rubble stone masonry with approved stones** from **tunnel excavated muck** in **cement mortar 1 : 6** proportion for backfilling over cuts / slips on tunnel sides due to geological faults etc., including cost of all materials, machinery, labour, cleaning, scaffolding, packing mortar, wedging stone chips, curing, ventilation, lighting, drainage complete **with lead upto 1 km and all lifts.**
(cement content : 95 kg/cum of masonry, Rubble stones : 0.83 cum, Stone chips : 0.13 cum, FA : 0.40 cum)

DATA

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	950.00	3.88	3687.90
2	Rubble stones	cum	8.30	303.00	2514.90
3	Stone chips	cum	1.25	333.00	416.25
4	Sand (Screened)	cum	4.00	182.00	728.00
TOTAL				Rs:	7347.05
Add for scaffolding @				2.5%	Rs: 183.68
Total cost of Materials				Rs:	7530.73

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	10 hp pump (ele)	Hour	1.00	5.50	5.50
	Fuel / energy charges	Hour	1.00	85.00	85.00
Total hire charges of Machinery				Rs:	90.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	1.00	91.70	91.70
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class-I	Day	1.00	475.00	475.00
4	Mason Class-II	Day	2.00	440.00	880.00
5	mazdoor				
	for sorting out rubble in dump yard	Day	1.00	400.00	400.00
	for conveying rubble	Day	2.00	400.00	800.00
	for preparing mortar	Day	2.00	400.00	800.00
	for loading mortar pans	Day	1.00	400.00	400.00
	for laying & packing mortar	Day	4.00	400.00	1600.00
	for washing rubble / finishing / curing	Day	1.00	400.00	400.00
	for conveying mortar / chips	Day	3.00	400.00	1200.00
TOTAL				Rs:	7546.70
Add for labour for scaffolding @				15.0%	Rs: 1132.01
Total cost of Labour				Rs:	8678.71

labour component/unit qty

867.87

Add contractor's profit and overhead charges

13.615% 118.20

labour component/unit qty (including contractor's profit)

986.10**ABSTRACT:**

A. Cost of Materials		Rs:	7530.73
B. Hire charges of Machinery		Rs:	90.50
C. Cost of Labour		Rs:	8678.71
	Total	Rs:	16299.93
Add for Air and Water line @	1.00%	Rs:	163.00
Add for Ventilation @	4.50%	Rs:	733.50
Add for Lighting @	1.60%	Rs:	260.80
Add for Ele sub-station / Demand charges @	2.50%	Rs:	407.50
	Total	Rs:	17864.72
D.Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	2432.28
Lead Charges for 1 Km for FA	4.00 cum @	32.4 Rs./Cum	129.6
Lead Charges for 1 Km for Stones and Stone Chips	9.55 cum @	31.5 Rs./Cum	300.83
Total cost for	10.00 cum	Rs:	20727.43
Rate per cum	(A+B+C+D)/10.0	Rs:	2072.70

IRR_TAW-5 **REINFORCEMENT & CONCRETE WORKS :**

IRR-TAW-5-1 Providing, fabricating and **placing in position reinforcement steel for tunnel RCC works** including cleaning, straightening, cutting, bending, hooking, lapping / welding joints wherever required, tying with 1.25 mm dia. soft annealed steel wire, including cost of all materials, labour, machinery, ventilation, lighting, drainage etc., complete **with initial lead upto 1 km and all lifts.**

DATA

RATE ANALYSISUNIT : **1.00 tonne****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rein.Steel with 5 % wastage	tonne	1.05	42000.00	44100.00
2	Binding wire 1.25 mm dia	kg	13.50	53.00	715.50
3	Sundries (chairs / spacers etc)	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	44970.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Bar bender	Day	9.00	600.00	5400.00
2	mazdoor	Day	15.00	400.00	6000.00
Total cost of Labour				Rs:	11400.00

labour component/unit qty 11400.00
 Add contractor's profit and overhead charges 13.615% 1552.10
 labour component/unit qty (including contractor's profit) **12952.10**

ABSTRACT:

A. Cost of Materials		Rs:	44970.50
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	11400.00
	Total	Rs:	56370.50
Add for Air and Water line @	1.00%	Rs:	563.71
Add for Ventilation @	4.50%	Rs:	2536.67
Add for Lighting @	1.60%	Rs:	901.93
Add for Ele sub-station / Demand charges @	2.50%	Rs:	1409.26
	Total	Rs:	61782.07
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	8411.63
Lead Charges for 1Km for Steel (including Loading and Unloading Charges)	1.05 tonne @ 190.3 Rs./Tonne		199.815
Total cost for	1.00 tonne	Rs:	70393.51
Rate per tonne	(A+B+C+D)/1.0	Rs:	70393.50

IRR-TAW-5-2 Providing and laying **insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates crushed from tunnel excavated muck **for filling and levelling over-cuts in bed due to geological faults etc.**, including cost of all materials, machinery, labour, cleaning bed, batching, mixing, conveying and laying, levelling, compacting, finishing, curing, lighting, ventilation, drainage etc., complete **with initial lead upto 1 km and all lifts. (Cement content : 220 kg / cum, CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum, Superplasticizer 0.4% by wt. of cement)**

DATA

RATE ANALYSISUNIT : **28.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	6160.00	3.88	23913.12
2	Coarse aggregate 40-20 mm	cum	12.60	1133.00	14275.80
	Coarse aggregate 20-10 mm	cum	7.56	1182.00	8935.92
	Coarse aggregate 10 mm below	cum	5.04	860.00	4334.40
3	Fine aggregate (Un-Screened)	cum	11.20	100.00	1120.00
4	Super Plasticizer	kg	24.64	43.00	1059.52
5	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	53700.76

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Batching plant 2 x 1 cum	Hour	8.00	329.80	2638.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
2	Agitator car 2 cum	Hour	16.00	617.10	9873.60
	Fuel / Energy charges	Hour	16.00	1145.70	18331.20
3	10 hp pump (ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
4	Needle vibrator 40 mm dia	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	34810.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Agitator car	Hour	16.00	308.90	4942.40
3	Crew for Pump	Hour	8.00	91.70	733.60
4	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for cleaning bed	Day	2.00	400.00	800.00
	for loading material bin (Cement)	Day	3.00	400.00	1200.00
	for miscellaneous works at BP	Day	2.00	400.00	800.00
	for laying concrete	Day	7.00	400.00	2800.00
	for conveying laying concrete	Day	14.00	400.00	5600.00
	for cleaning bed	Day	2.00	400.00	800.00
	for washing CA / curing	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	23808.60

labour component/unit qty	850.30
Add contractor's profit and overhead charges	13.615% 115.80
labour component/unit qty (including contractor's profit)	966.10

ABSTRACT:

A. Cost of Materials	Rs:	53700.76
B. Hire charges of Machinery	Rs:	34810.80
C. Cost of Labour	Rs:	23808.60
	Total	Rs: 112320.16
Add for Air and Water line @	1.00%	Rs: 1123.20
Add for Ventilation @	4.50%	Rs: 5054.41
Add for Lighting @	1.60%	Rs: 1797.12
Add for Ele sub-station / Demand charges @	2.50%	Rs: 2808.00
	Total	Rs: 123102.90
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs: 16760.46
Lead Charges for 1 Km for FA	11.20 cum @ 32.4 Rs./Cum	362.88
Lead Charges for 1 Km for CA	25.20 cum @ 31.5 Rs./Cum	793.80
Total cost for	28.00 cum	Rs: 141020.03
Rate per cum	(A+B+C+D)/28.0	Rs: 5036.40

IRR-TAW-5-3 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sqmm) grade **cement concrete using 40 mm and down size** approved clean, hard, graded aggregates crushed from tunnel muck **for kerb and bed lining** including cost of all materials, machinery, labour, formwork, batching, mixing, conveying upto placing point in agitator cars, placing in position, levelling, vibrating, finishing, curing, ventilation, lighting, drainage and all other ancillary operations etc., complete **with lead upto 1 km and all lifts.**
(Cement content 330 kg / cum for use of super plasticiser(0.4% by wt. of cement), CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA

RATE ANALYSISUNIT : **28.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	9240.00	3.88	35869.68
	Cement for incidentals @ 1 kg / cum	kg	28.00	3.88	108.70
2	Fine aggregate (Un-Screened)	cum	11.20	100.00	1120.00
3	Coarse aggregate 40-20 mm	cum	12.60	1133.00	14275.80
	Coarse aggregate 20-10 mm	cum	7.56	1182.00	8935.92
	Coarse aggregate 10-4.75 mm	cum	5.04	860.00	4334.40
4	Super plasticiser	kg	36.96	43.00	1589.28
5	Use rate of shuttering for kerb / bed	sqm	28.00	166.86	4671.96
6	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	70967.73

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Batching plant 2 x 1.00 cum	Hour	8.00	329.80	2638.40
	Fuel / Energy charges	Hour	8.00	382.70	3061.60
2	Agitator car 2 cum (2 Nos)	Hour	16.00	617.10	9873.60
	Fuel / Energy charges	Hour	16.00	1145.70	18331.20
3	Needle Vibrator	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
4	Pump 10 hp (Ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
5	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	34903.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Agitator car	Hour	16.00	308.90	4942.40
3	Crew for vibrator	Hour	8.00	174.10	1392.80
4	Crew for pump	Hour	8.00	91.70	733.60
5	For scaling & cleaning bed				
	Hammerman	Day	2.00	440.00	880.00
	mazdoor	Day	6.00	400.00	2400.00
6	For loading cement to BP bin				
	mazdoor	Day	3.00	400.00	1200.00
7	For miscellaneous work at BP				
	mazdoor	Day	2.00	400.00	800.00
8	For wetting C.A & curing				
	mazdoor	Day	2.00	400.00	800.00
9	Laying concrete for kerb/ invert				
	Mason CI I	Day	2.00	475.00	950.00
	Mason CI II	Day	2.00	440.00	880.00
	mazdoor	Day	21.00	400.00	8400.00
	work inspector	Day	1.00	500.00	500.00
10	Labour charges for shuttering	sqm	28.00	99.60	2788.80
Total cost of Labour				Rs:	29632.40

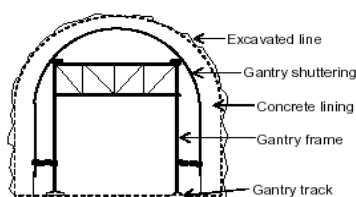
labour component/unit qty 1058.30

Add contractor's profit and overhead charges 13.615% 144.10

labour component/unit qty (including contractor's profit) **1202.40****ABSTRACT:**

A. Cost of Materials		Rs:	70967.73
B. Hire charges of Machinery		Rs:	34903.80
C. Cost of Labour		Rs:	29632.40
	Total	Rs:	135503.93
Add for Air and Water line @	1.00%	Rs:	1355.04
Add for Ventilation @	4.50%	Rs:	6097.68
Add for Lighting @	1.60%	Rs:	2168.06
Add for Ele sub-station / Demand charges @	2.50%	Rs:	3387.60
	Total	Rs:	148512.31
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	20219.95
Lead Charges for 1 Km for FA	11.20 cum @	32.4 Rs./Cum	362.88
Lead Charges for 1 Km for CA	25.20 cum @	31.5 Rs./Cum	793.80
Total cost for	28.00 cum	Rs:	169888.94
Rate per cum	(A+B+C+D)/28.0	Rs:	6067.50

IRR-TAW-5-4 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sqmm) grade cement concrete using **40 mm and down size** approved clean, hard, graded aggregates crushed from tunnel muck **for sides and arch lining** including cost of all materials, machinery, labour, formwork, batching, mixing, conveying upto placing point in agitator cars, placing in position, levelling, vibrating, finishing, curing, ventilation, lighting, drainage and all other ancillary operations etc., complete **with lead upto 1 km and all lifts.**
(Cement content 330 kg / cum for use of super plasticiser(0.4% by wt. of cement), CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)



DATA:

RATE ANALYSISUNIT : **48.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	15840.00	3.88	61490.88
	Cement for incidentals @ 1 kg / cum	kg	48.00	3.88	186.34
2	Fine aggregate (Un-Screened)	cum	19.20	100.00	1920.00
3	Coarse aggregate 40-20 mm	cum	21.60	1133.00	24472.80
	Coarse aggregate 20-10 mm	cum	12.96	1182.00	15318.72
	Coarse aggregate 10-4.75 mm	cum	8.64	860.00	7430.40
4	Super plasticiser	kg	63.36	43.00	2724.48
5	Use rate of end shuttering	sqm	6.00	166.86	1001.13
6	Use rate of steel gantry	sqm	100.00	99.60	9960.00
7	Sundries (placer pipe etc)	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	124659.75

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor (Ele) 8.5 cmm	Hour	16.00	139.00	2224.00
	Fuel / Energy charges @ 75 % load	Hour	12.00	478.40	5740.80
2	Batching plant 2 x 1.00 cum	Hour	12.00	329.80	3957.60
	Fuel / Energy charges	Hour	12.00	382.70	4592.40
3	Agitator car 2 cum (2 Nos)	Hour	32.00	617.10	19747.20
	Fuel / Energy charges	Hour	32.00	1145.70	36662.40
4	Concrete placer pump	Hour	16.00	817.10	13073.60
	Fuel / Energy charges	Hour	16.00	510.30	8164.80
5	Needle Vibrator / Shutter vibrator	Hour	8.00	6.50	52.00
	Fuel / Energy charges	Hour	8.00	8.50	68.00
6	Pump 10 hp (Ele)	Hour	8.00	5.50	44.00
	Fuel / Energy charges	Hour	8.00	85.00	680.00
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	95161.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew charges for Air compressor	Hour	16.00	181.40	2902.40
2	Crew charges for Batching plant	Hour	16.00	370.60	5929.60
3	Crew charges for Agitator car	Hour	32.00	308.90	9884.80
4	Crew charges for placer pump	Hour	16.00	181.40	2902.40
5	Crew charges for vibrator	Hour	8.00	174.10	1392.80
6	Crew charges for Pump	Hour	8.00	91.70	733.60
7	For scaling & cleaning				
	Stone chiseller CI II	Day	0.50	440.00	220.00
	mazdoor	Day	1.00	400.00	400.00
8	For dismantling / Laying track				
	Surveyer	Day	0.50	700.00	350.00
	Fitter shuttering	Day	0.50	440.00	220.00
	Helper shuttering 2 x 0.5	Day	1.00	440.00	440.00
	Khalasi 6 x 0.5	Day	3.00	490.00	1470.00
	mazdoor 2 x 0.5	Day	1.00	400.00	400.00
9	For Moving / Positioning gantry				
	Surveyer	Day	0.50	700.00	350.00
	Foreman	Day	0.50	550.00	275.00
	Fitter shuttering	Day	0.50	440.00	220.00
	Helper shuttering 2 x 0.5	Day	1.00	440.00	440.00
	Khalasi 6 x 0.5	Day	3.00	490.00	1470.00
	mazdoor 2 x 0.5	Day	1.00	400.00	400.00
10	For loading cement to BP bin				
	mazdoor	Day	5.00	400.00	2000.00
11	For miscellaneous works of BP				
	mazdoor	Day	2.00	400.00	800.00
12	For Erection/Dismantling bulk head	sqm	6.00	99.60	597.60
13	For Laying concrete by placer				
	Masom CI I	Day	3.00	475.00	1425.00
	mazdoor	Day	9.00	400.00	3600.00
	work inspector	Day	3.00	500.00	1500.00
14	For wetting C.A / Curing etc				
	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	41523.20

labour component/unit qty 865.10
 Add contractor's profit and overhead charges 13.615% 117.80
 labour component/unit qty (including contractor's profit) **982.90**

ABSTRACT:

A. Cost of Materials Rs: 124659.75
 B. Hire charges of Machinery Rs: 95161.80

IRR-TAW-6-2 **Grouting cement slurry in grout holes** under specified pressure for consolidation / contact grouting including cost of all materials, machinery, labour, redrilling wherever necessary, ventilation, lighting, drainage and other ancillary operations etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT : **1.50 tonne**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	tonne	1.50	3882.00	5823.00
2	Use rate of grouting hose 50 m	Hour	8.00	10.25	82.00
3	Use rate of water hose 50 m	Hour	8.00	10.31	82.50
4	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	6049.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Grouting machine	Hour	8.00	20.30	162.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
2	Pump 10 hp (ele)	Hour	2.00	5.50	11.00
	Fuel / Energy charges	Hour	2.00	85.00	170.00
3	Drilling jumbo	Hour	2.00	299.70	599.40
	Fuel / Energy charges	Hour	2.00	56.20	112.40
4	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	1457.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Grout pump	Hour	8.00	290.20	2321.60
2	Crew for pump	Hour	2.00	91.70	183.40
3	Crew for Drilling jumbo	Hour	2.00	193.40	386.80
4	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	3691.80

labour component/unit qty 2461.20
 Add contractor's profit and overhead charges 13.615% 335.10
 labour component/unit qty (including contractor's profit) **2796.30**

ABSTRACT:

A. Cost of Materials		Rs:	6049.50
B. Hire charges of Machinery		Rs:	1457.20
C. Cost of Labour		Rs:	3691.80
	Total	Rs:	11198.50
Add for Air and Water line @	1.00%	Rs:	111.99
Add for Ventilation @	4.50%	Rs:	503.93
Add for Lighting @	1.60%	Rs:	179.18
Add for Ele sub-station / Demand charges @	2.50%	Rs:	279.96
	Total	Rs:	12273.56
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	1671.04
Total cost for	1.50 tonne	Rs:	13944.60
Rate per tonne	(A+B+C+D)/1.50	Rs:	9296.40

IRR-TAW-6-3 **Drilling 75 mm diameter drainage holes** vertical or inclined in **rock / concrete** in tunnel by percussion drilling using waggon drill or other suitable drilling equipment including cost of all materials, machinery, labour, ventilation, lighting, drainage etc., complete.

DATA

RATE ANALYSIS

UNIT : **120.00 Rm**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of cross bit 75 mm dia	Rm	120.00	124.75	14970.00
2	Use rate of air hose 20 m	Hour	16.00	4.10	65.60
3	Use rate of water hose 20 m	Hour	16.00	4.13	66.00
4	Use rate of extension rods	Rm	120.00	7.52	902.40
Total cost of Materials				Rs:	16004.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Waggon drill	Hour	16.00	153.40	2454.40
	Fuel / Energy charges	Hour	16.00	0.00	0.00
2	Air compressor 15 cmm (ele)	Hour	8.00	112.90	903.20
	Fuel / Energy charges	Hour	8.00	1063.10	8504.80
3	Pump 10 hp (ele)	Hour	6.00	5.50	33.00
	Fuel / Energy charges	Hour	6.00	85.00	510.00
4	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	12467.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Waggon drill	Hour	16.00	308.90	4942.40
2	Crew for Air compressor	Hour	8.00	193.40	1547.20
3	Crew for Pump	Hour	6.00	91.70	550.20
4	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	7839.80

labour component/unit qty 65.30
 Add contractor's profit and overhead charges 13.615% 8.90
 labour component/unit qty (including contractor's profit) **74.20**

ABSTRACT:

A. Cost of Materials		Rs:	16004.00
B. Hire charges of Machinery		Rs:	12467.40
C. Cost of Labour		Rs:	7839.80
	Total	Rs:	36311.20
Add for Air and Water line @	1.00%	Rs:	363.11
Add for Ventilation @	4.50%	Rs:	1634.00
Add for Lighting @	1.60%	Rs:	580.98
Add for Ele sub-station / Demand charges @	2.50%	Rs:	907.78
	Total	Rs:	39797.08
D. Add for contractor's profit and overheads on (A+B+C+other percentages)	13.615%	Rs:	5418.37
Total cost for	120.00 Rm	Rs:	45215.45
Rate per Rm	(A+B+C+D)/120.0	Rs:	376.80

Chapter III

CANAL AND ALLIED WORKS - Standard Data

(WLL BE WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)
FOR THE YEAR : 2018-19

Index- code

IRR-CAW

CANAL AND ALLIED WORKS - DATA RATES**Directions to add Seigniorage Charges and Additional Lead Charges****Seigniorage Charges:**

1. The unit rate for work item in the Standard Data is **exclusive of Seigniorage Charges** wherever applicable.
2. The appropriate Seigniorage Charges for relevant materials are to be added to the Unit rate of work item while preparing the estimate. (i.e., to the data itself)
3. The Provision towards Contractor's Profit and Overhead charges **should not be operated on** the Seigniorage Charges while adding Seigniorage Charges to the data in the estimate

Additional Lead and Lift Charges:

1. Unless otherwise specified the basic rates are inclusive of all lifts.
2. For concrete, masonry and reinforcement items **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:
Additional lead charges for Steel, sand, coarse aggregate, stones and stone chips shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.

In case of Cement and Steel, Loading and unloading charges are already added in the work item while arriving the unit rate and hence should not be added again

Example:

Total lead for sand from approved sand quarry :			15 Km
Initial lead included in the basic rate in the SR :			1 Km
Additional lead charges :	Lead charges for 5 km	Rs.	86.40
	Lead charges for next 10 km	Rs.	130
	Total lead charges for 15 km /cum	Rs.	216.40
	Less 1 km initial lead charges /cum	Rs.	32.40 (-)
	Net additional lead charges / cum	Rs.	184.00

3. The Leads for Steel shall be from the nearest market place to the Project area

4. For earth/rockfill embankments **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:
Additional lead charges for Earth, Murrum etc., shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.
(same as above)

Example:

Total lead for earth from approved borrow area :			15 Km
Initial lead included in the basic rate in the SR :			1 Km
Additional lead charges :	Lead charges for 5 km	Rs.	86.40
	Lead charges for next 10 km	Rs.	130
	Total lead charges for 15 km /cum	Rs.	216.40
	Less 1 km initial lead charges /cum	Rs.	32.40 (-)
	Net additional lead charges / cum	Rs.	184.00

5. The initial lead up to 50 m as mentioned in some standard data items is meant for manual lead within the working area. For conveyance of materials, the lead required from quarry/Borrow area/ Dump Area to worksite shall be added to the data without deducting the 50 m initial lead charges

CAW-Work Items**IRR-CAW-1 EXCAVATION WORKS :**

- IRR-CAW-1-1 Excavation in **all kinds of soil** including boulders **upto 0.3 m** diameter **for canal**, seating of embankment, filter drains / catch water drains etc., including dressing bed and sides to required level and profile, cost of all materials, machinery, labour, placing the excavated soil neatly in dump area or for the formation of service road / embankment as directed etc., complete **with initial lead upto 1 km and all lifts**.

DATA:

RATE ANALYSIS

UNIT :

925.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Tippers 5 cum capacity 6 Nos	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
Total hire charges of Machinery				Rs:	56619.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Tipper	Hour	48.00	193.10	9268.80
3	work inspector	Day	1.00	500.00	500.00
4	mazdoor	Day	30.00	400.00	12000.00
Total cost of Labour				Rs:	23828.00

labour component/unit qty 25.80

Add contractor's profit and overhead charges 13.615% 3.50

labour component/unit qty (including contractor's profit) **29.30****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	56619.20
C. Cost of Labour	Rs:	23828.00
Total	Rs:	80447.20

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 10952.89

Total cost for 925.00 cum Rs: **91400.09****Rate per cum** (A+B+C+D)/925 Rs. **98.80**

IRR-CAW-1-2 Excavation in **all kinds of soil** including boulders **upto 0.30 m dia for field channels**, seating of embankment for field channels etc., including dressing of bed and sides to required profile, cost of all materials, machinery, labour, placing the excavated stuff for formation of service road / embankment as directed etc., complete **with lead upto 10 m and lift upto 3 m.**

DATA: **RATE ANALYSIS** UNIT : **440.00 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
Total hire charges of Machinery				Rs:	11528.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	17.00	400.00	6800.00
Total cost of Labour				Rs:	9359.20

labour component/unit qty 21.30

Add contractor's profit and overhead charges 13.615% 2.90

labour component/unit qty (including contractor's profit) **24.20****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	11528.00
C. Cost of Labour	Rs:	9359.20
Total	Rs:	20887.20

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2843.79

Total cost for 440.00 cum Rs: **23730.99****Rate per cum** (A+B+C+D)/440 Rs. **53.90**

IRR-CAW-1-3 Excavation in **ordinary rock (including HDR) without blasting** including boulders **above 0.30 m upto 0.6 m dia.** for canals, seating of embankment, filter drain / catch water drains etc., including dressing of bed and sides to required level and profile, cost of all materials, machinery, labour, placing the excavated soft rock neatly in dump area or for formation of service road as directed etc., complete **with lead upto 1 km and all lifts.**

DATA: **RATE ANALYSIS** UNIT : **630.00 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Tippers 5 cum capacity 5 Nos	Hour	40.00	363.50	14540.00
	Fuel / Energy charges	Hour	40.00	393.70	15748.00
Total hire charges of Machinery				Rs:	50561.60

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Tipper	Hour	40.00	193.10	7724.00
3	work inspector	Day	1.00	500.00	500.00
4	Crowbarman	Day	11.00	440.00	4840.00
5	mazdoor	Day	22.00	400.00	8800.00
Total cost of Labour				Rs:	23923.20

labour component/unit qty 38.00

Add contractor's profit and overhead charges 13.615% 5.20

labour component/unit qty (including contractor's profit) **43.20****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 50561.60

C. Cost of Labour Rs: 23923.20

Total Rs: **74484.80**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 10141.11

Total cost for 630.00 cum Rs: **84625.91****Rate per cum** (A+B+C+D)/630 Rs: **134.30**

IRR-CAW-1-4 Excavation in **ordinary rock (including HDR) without blasting** including boulders **above 0.3 m upto 0.60 m dia.** for field channels, seating of embankment **for field channels** etc., including dressing of bed and sides to required profile, cost of all materials, machinery, labour, placing the excavated stuff for formation of service road as directed etc., complete **with lead upto 10 m and lift upto 3 m.**

DATA:

RATE ANALYSISUNIT : **265.00 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
Total hire charges of Machinery				Rs:	11528.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	work inspector	Day	1.00	500.00	500.00
3	Crowbarman	Day	5.00	440.00	2200.00
4	mazdoor	Day	11.00	400.00	4400.00
Total cost of Labour				Rs:	9159.20

labour component/unit qty 34.60

Add contractor's profit and overhead charges 13.615% 4.70

labour component/unit qty (including contractor's profit) **39.30****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 11528.00

C. Cost of Labour Rs: 9159.20

Total Rs: **20687.20**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2816.56

Total cost for 265.00 cum Rs: **23503.76****Rate per cum** (A+B+C+D)/265 Rs: **88.70**

IRR-CAW-1-5 Excavation in **hard rock (including F&F rock) requiring blasting** including boulders **above 0.6 m upto 1.2 m dia. for canals**, seating of embankment, filter drain / catch water drains etc., including dressing bed and sides to required level and profile, cost of all materials, machinery, labour, placing the excavated rock in dump area or for formation of service road as directed etc., complete **with lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

805.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod 1.5 m length	Rm	316.00	17.85	5640.60
	Reconditioning charges @ 10%				564.06
2	Use rate of 50 m air hose 2 Nos	Hour	24.00	10.25	246.00
3	Explosive small dia (Kelvex-220)	kg	161.00	56.48	9093.92
4	Ordinary detonators	Nos	12.00	5.23	62.76
5	Electric detonators	Nos	215.00	9.41	2024.01
6	Fuse coil	Rm	520.00	7.32	3807.44
7	Sundries	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	21593.79

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
2	Tippers 5 cum capacity 5 Nos.	Hour	40.00	363.50	14540.00
	Fuel / Energy charges	Hour	40.00	393.70	15748.00
3	Air compressor 8.5 cmm (diesel)	Hour	12.00	224.20	2690.40
	Fuel / Energy charges	Hour	12.00	1171.80	14061.60
4	Jack hammers 3 Nos.	Hour	39.00	16.10	627.90
	Fuel / Energy charges	Hour	39.00	0.00	0.00
Total hire charges of Machinery				Rs:	67941.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Tipper	Hour	40.00	193.10	7724.00
3	Crew for Air compressor	Hour	12.00	232.10	2785.20
4	Crew for Jack hammer	Hour	39.00	362.70	14145.30
5	work inspector	Day	1.00	500.00	500.00
6	Blaster	Day	1.00	550.00	550.00
7	Helper blaster	Day	1.00	440.00	440.00
8	Crowbarman	Day	16.00	440.00	7040.00
9	Stone breaker	Day	16.00	440.00	7040.00
10	mazdoor	Day	32.00	400.00	12800.00
Total cost of Labour				Rs:	55083.70

labour component/unit qty 68.40

Add contractor's profit and overhead charges 13.615% 9.30

labour component/unit qty (including contractor's profit) 77.70**ABSTRACT:**

A. Cost of Materials Rs: 21593.79

B. Hire charges of Machinery Rs: 67941.50

C. Cost of Labour Rs: 55083.70

Total Rs: 144618.99

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 19689.88

Total cost for 805.00 cum Rs: **164308.87****Rate per cum (A+B+C+D)/805 Rs. 204.10**

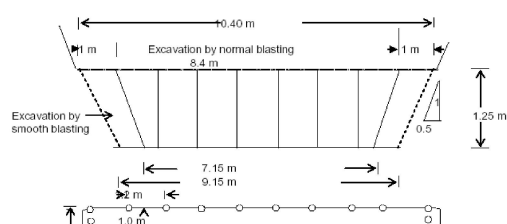
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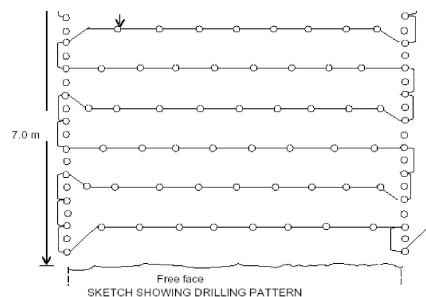
(a)

Excavation in **hard rock of all toughness by blasting** including boulders **above 1.2 m dia. for canals**, seating of embankment, filter drain / catch water drains etc., including levelling the bed by removing all projections by hammering / chiselling, cost of all materials, machinery, labour, placing the excavated rock neatly in approved dump area and levelling the same as directed etc., complete **with initial lead upto 1 km and all lifts**.

Note:

- i) The rate under this item shall be adopted for canals designed for carrying capacity of less than 15 cumecs or where the average depth of excavation in hard rock is less than 3 m.
 ii) The rate includes levelling canal bed by hammering / chiselling all rock projections wherever required.





DATA:

RATE ANALYSIS

UNIT :

68.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod 1.5 m length	Rm	85.00	23.80	2023.00
	Reconditioning charges @ 10%				202.30
2	Use rate of 50 m air hose 2 Nos.	Hour	13.00	10.25	133.25
3	Explosive small dia. (Kelvex-220)	kg	21.20	56.48	1197.46
4	Ordinary detonators	Nos	4.00	5.23	20.92
5	Electric detonators	Nos	59.00	9.41	555.43
6	Fuse coil	Rm	90.00	7.32	658.98
7	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	4853.34

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.85 cum capacity	Hour	1.10	1388.50	1527.35
	Fuel / energy charges	Hour	1.10	1145.70	1260.27
2	Angle dozer 90 hp	Hour	0.25	1395.70	348.93
	Fuel / Energy charges	Hour	0.25	801.50	200.38
3	Tipplers 5 cum capacity 4 Nos.	Hour	4.40	363.50	1599.40
	Fuel / Energy charges	Hour	4.40	393.70	1732.28
4	Air compressor 8.5 cmm (diesel) 1 Nos	Hour	6.50	224.20	1457.30
	Fuel / Energy charges	Hour	6.50	1171.80	7616.70
5	Jack hammers 2 Nos.	Hour	13.00	16.10	209.30
	Fuel / Energy charges	Hour	13.00	0.00	0.00
Total hire charges of Machinery				Rs:	15951.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	1.10	257.40	283.14
2	Crew for Dozer	Hour	0.25	257.40	64.35
3	Crew for Tipper	Hour	4.40	193.10	849.64
4	Crew for Air compressor	Hour	6.50	232.10	1508.65
5	Crew for Jack hammer	Hour	13.00	362.70	4715.10
6	work inspector	Day	0.50	500.00	250.00
7	Blaster	Day	1.00	550.00	550.00
8	Helper blaster	Day	1.00	440.00	440.00
9	Crowbarman	Day	0.50	440.00	220.00
10	Stone breaker	Day	0.50	440.00	220.00
11	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	9900.88

labour component/unit qty 145.60

Add contractor's profit and overhead charges 13.615% 19.80

labour component/unit qty (including contractor's profit) **165.40****ABSTRACT:**

A. Cost of Materials

Rs: 4853.34

B. Hire charges of Machinery

Rs: 15951.90

C. Cost of Labour

Rs: 9900.88

Total Rs: **30706.12**

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Rs: 4180.64

Total cost for 68.00 cum

Rs: **34886.76****Rate per cum (A+B+C+D)/68**Rs. **513.00**

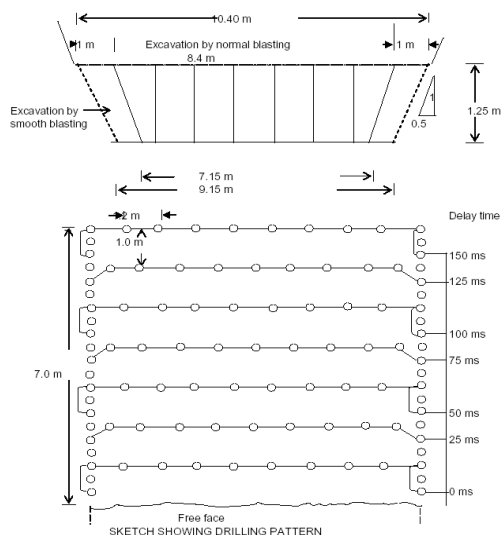
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(b)

Excavation in hard rock of all toughness including boulders above 1.2 m dia. by approved controlled blasting methods for canals, cut-off trench of embankment, filter / catch-water drains etc., including controlling fly-rock by muffling arrangements such as placing 50 x 50 mm opening chain link mesh or waste tyres and sand bags, monitoring ground vibrations at specified locations, costof all materials, machinery, labour, placing excavated rock

neatly in approved dump area or other place as directed etc., complete **with lead upto 1 km and all lifts.**

- Note:
- The rate under this item shall be adopted for canals designed for carrying capacity of less than 15 cumecs or where the average depth of excavation in hard rock is less than 3 m.
 - The rate under this item shall be adopted where the control of fly-rock and ground vibrations is required.



DATA

RATE ANALYSIS

UNIT :

68.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod 1.5 m length	Rm	85.00	23.80	2023.00
	Reconditioning charges @ 10%				202.30
2	Use rate of 50 m air hose 2 Nos.	Hour	13.00	10.25	133.25
3	Use rate of wire mesh	sqm	94.00	51.76	4864.97
4	Use rate of sand bag	Nos	98.00	9.35	916.30
5	Explosive small dia. (Kelvex-220)	kg	21.20	56.48	1197.46
6	Ordinary detonators	Nos	4.00	5.23	20.92
7	Electric delay detonators	Nos	59.00	16.74	987.42
8	Fuse coil	Rm	90.00	7.32	658.98
9	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	11066.60

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.85 cum capacity	Hour	1.10	1388.50	1527.35
	Fuel / Energy charges	Hour	1.10	1145.70	1260.27
2	Angle dozer 90 hp	Hour	0.25	1395.70	348.93
	Fuel / Energy charges	Hour	0.25	801.50	200.38
3	Tipppers 5 cum capacity 3 Nos.	Hour	4.40	363.50	1599.40
	Fuel / Energy charges	Hour	4.40	393.70	1732.28
	Air compressor 8.5 cmm (diesel) 1				
4	No	Hour	6.50	224.20	1457.30
	Fuel / Energy charges	Hour	6.50	1171.80	7616.70
5	Jack hammers 2 Nos.	Hour	13.00	16.10	209.30
	Fuel / Energy charges	Hour	13.00	0.00	0.00
Total hire charges of Machinery				Rs:	15951.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	1.10	257.40	283.14
2	Crew for Angle dozer	Hour	0.25	257.40	64.35
3	Crew for Tipper	Hour	4.40	193.10	849.64
4	Crew for Air compressor	Hour	6.50	232.10	1508.65
5	Crew for Jack hammer	Hour	13.00	362.70	4715.10
6	work inspector	Day	0.50	500.00	250.00

7	Blaster	Day	0.50	550.00	275.00
8	Helper blaster	Day	0.50	440.00	220.00
9	Stone chiseller CI - II	Day	0.50	440.00	220.00
10	Stone breaker	Day	0.50	440.00	220.00
11	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	9805.88

labour component/unit qty	144.20
Add contractor's profit and overhead charges	13.615% 19.60
labour component/unit qty (including contractor's profit)	163.80

ABSTRACT:

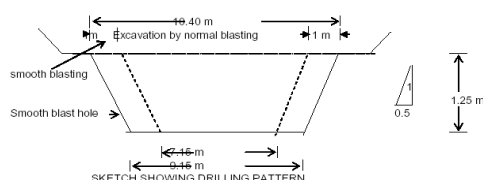
A. Cost of Materials	Rs:	11066.60
B. Hire charges of Machinery	Rs:	15951.90
C. Cost of Labour	Rs:	9805.88
	Total	Rs: 36824.38
Add for blasting studies & monitoring vibrations etc	0.50%	Rs: 184.12
	Total	Rs: 37008.51
D. Add for contractor's profit and overheads on	13.615%	Rs: 5038.71
Total cost for	68.00 cum	Rs: 42047.22
Rate per cum	(A+B+C+D)/68	Rs. 618.30

IRR-CAW-1-8
(c)

Excavation in hard rock of all toughness including boulders above 1.2 m dia. for dressing canal sides neatly on either side to required profile by line drilling and smooth blasting including removing under-cuts by chiselling / hammering, placing the excavated rock neatly in dump area or other place as directed, cost of all materials, machinery, labour etc., complete with lead upto 1 km and all lifts.

Note:

- For excavation of canal below free board level combination of normal / controlled blasting and line drilling and smooth blasting shall be adopted to obtain neat side slopes. For the purpose of payment 1 m width of excavation on either side shall be treated as excavation by line drilling and smooth blasting and remaining portion shall be treated as excavation by normal / controlled blasting as the case may be.
- The rate under this item shall be adopted for canals designed for carrying capacity of less than 15 cumecs or where the average depth of excavation in hard rock is less than 3 m.
- The rate includes controlling fly-rock wherever required.
- The rate under this item shall be paid only on ascertaining that the excavated face has come off neatly as per specifications or atleast 50 percent of smooth blast holes are visible for inspection and are spaced at specified interval.
- In case, where the above criteria is not fulfilled payment shall be restricted to rate provided for excavation by normal blasting or controlled blasting as the case may be.



DATA

RATE ANALYSIS

A. MATERIALS:			UNIT : 17.50 cum		
SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod 1.5 m length	Rm	63.00	23.80	1499.40
	Reconditioning charges @ 10%				149.94
2	Use rate of 50 m air hose 2 Nos.	Hour	10.00	10.25	102.50
3	Explosive small dia. (Kelvex-220)	kg	3.50	56.48	197.69
4	Electric delay detonators	Nos	22.00	16.74	368.19
5	Fuse coil	Rm	20.00	7.32	146.44
6	Sundries	LS	1.00	31.00	31.00
Total cost of Materials				Rs:	2495.17

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.85 cum capacity	Hour	0.28	1388.50	388.78
	Fuel / Energy charges	Hour	0.28	1145.70	320.80
2	Tippers 5 cum capacity 4 Nos.	Hour	1.12	363.50	407.12

3	Fuel / Energy charges	Hour	1.12	393.70	440.94
	Air compressor 8.5 cmm (diesel) 1 Nos	Hour	5.00	224.20	1121.00
4	Fuel / Energy charges	Hour	5.00	1171.80	5859.00
	Jack hammers 2 Nos.	Hour	10.00	16.10	161.00
	Fuel / Energy charges	Hour	10.00	0.00	0.00
Total hire charges of Machinery				Rs:	8698.64

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	0.50	257.40	128.70
2	Crew for Tipper	Hour	1.12	193.10	216.27
3	Crew for Air compressor	Hour	5.00	232.10	1160.50
4	Crew for Jack hammer	Hour	10.00	362.70	3627.00
5	work inspector	Day	0.50	500.00	250.00
6	Blaster	Day	0.50	550.00	275.00
7	Helper blaster	Day	0.50	440.00	220.00
8	Stone breaker	Day	0.50	440.00	220.00
9	Stone chiseller CI - II	Day	0.50	440.00	220.00
10	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	6717.47

labour component/unit qty	383.90
Add contractor's profit and overhead charges	13.615% 52.30
labour component/unit qty (including contractor's profit)	436.20

ABSTRACT:

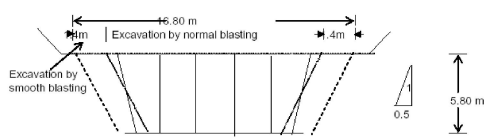
A. Cost of Materials	Rs:	2495.17
B. Hire charges of Machinery	Rs:	8698.64
C. Cost of Labour	Rs:	6717.47
	Total	Rs: 17911.28
Add for blasting studies & monitoring vibrations etc	0.50%	Rs: 89.56
	Total	Rs: 18000.83
D. Add for contractor's profit and overheads on	13.615%	Rs: 2450.81
Total cost for	17.50 cum	Rs: 20451.64
Rate per cum	(A+B+C+D)/17.50	Rs. 1168.70

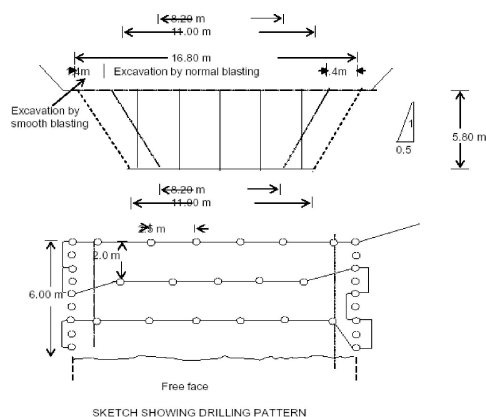
IRR-CAW-1-9 Excavation in hard rock by blasting including boulders above 1.2 m dia. for canals, seating embankment etc., including levelling bed by removing all projections by hammering / chiselling, cost of all materials, machinery, labour, placing the excavated rock neatly in approved dump area and levelling the same as directed etc., complete with initial lead upto 1 km and all lifts.

Note: i) The rate under this item shall be adopted for canals designed for carrying capacity of more than 15 cumecs or where the average depth of excavation in hard rock is more than 3 m.
ii) The rate includes levelling canal bed by hammering / chiselling all rock projections wherever required.

DATA Assume 16.80 m width of excavation for canal and 5.80 m depth of cutting in hard rock. Assume side slopes of 0.5 horizontal to 1 vertical. Consider average 1.4 m wide excavation on either side under line drilling and smooth blasting to obtain neat excavated slopes. Drilling and Blasting: Consider drilling by Waggon drill and mucking by combination of Shovel and Tipplers. For good fragmentation to facilitate easy loading by 0.85 cum capacity shovel the bench height to burden ratio shall be more than 3. The burden (distance of hole from free face of excavation) is considered at 20 times diameter of hole and spacing of holes is considered at 1.25 times burden.

Burden distance for 100 mm dia holes	:	2.00 m
Spacing of holes at 1.25 times burden	:	2.50 m
Grid spacing of holes for 100 mm dia Waggon drill holes	:	2.00 x 2.50 m
Consider 3 burden distance for excavation.		
Depth of drilling per hole	:	6.00 m
Effective depth of pull	:	5.80 m
Rate of drilling in hard rock per hour by Waggon drill	:	12.00 m





DATA:

RATE ANALYSIS

Unit:

386.00 Cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of T.C bit 100 mm dia	Rm	104.00	149.75	15574.00
2	Use rate of Extension rod with coupling sleeve	Rm	104.00	5.64	586.56
3	Use rate of Jack hammer drill rod 1.5 m	Rm	12.00	23.80	285.60
	reconditioning charges @ 10%				28.56
4	Use rate of 50 m air hose for waggon drill	Hour	10.50	15.88	166.69
	Use rate of 25 m air hose for JH 2 Nos	Hour	1.00	10.25	10.25
5	High strength ANFO booster	kg	38.00	59.62	2265.64
6	ANFO	kg	155.00	38.70	5998.81
7	Diesel oil	ltr	35.00	75.75	2651.25
8	Explosive small dia (Kelvex-220)	kg	4.00	56.48	225.94
9	Ordinary detonators	Nos	20.00	5.23	104.60
10	D-cord	Rm	145.00	6.28	910.02
11	Detonating fuse coil	Rm	20.00	7.32	146.44
12	Sundries	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	29109.35

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tippers 5 cum capacity	Hour	24.84	363.50	9029.34
	Fuel / Energy charges	Hour	24.84	393.70	9779.51
2	Shovel 0.85 cum capacity	Hour	6.21	1388.50	8622.59
	Fuel / Energy charges	Hour	6.21	1145.70	7114.80
3	Angle dozer	Hour	2.00	1395.70	2791.40
	Fuel / Energy charges	Hour	2.00	801.50	1603.00
4	Air compressor 8.5 cmm (diesel)	Hour	11.50	224.20	2578.30
	Fuel / Energy charges	Hour	11.50	1171.80	13475.70
5	Waggon drill	Hour	10.50	153.40	1610.70
	Fuel / Energy charges	Hour	10.50	0.00	0.00
6	Jack hammer	Hour	2.00	16.10	32.20
	Fuel / Energy charges	Hour	2.00	0.00	0.00
Total hire charges of Machinery				Rs:	56637.53

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Tipper	Hour	24.84	193.10	4796.60
2	Crew for Shovel	Hour	6.21	257.40	1598.45
3	Crew for Dozer	Hour	2.00	257.40	514.80
4	Crew for Air compressor	Hour	11.50	232.10	2669.15
5	Crew for Waggon drill	Hour	10.50	308.90	3243.45
6	Crew for Jack hammer	Hour	2.00	362.70	725.40
7	work inspector	Day	2.00	500.00	1000.00
8	Blaster	Day	1.00	550.00	550.00
9	Helper blaster	Day	1.00	440.00	440.00
10	Stone chiseller CI - II	Day	1.00	440.00	440.00

11	Stone breaker	Day	1.00	440.00	440.00
12	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	17617.86
labour component/unit qty			45.60		
Add contractor's profit and overhead charges			13.615%	6.20	
labour component/unit qty (including contractor's profit)				51.80	

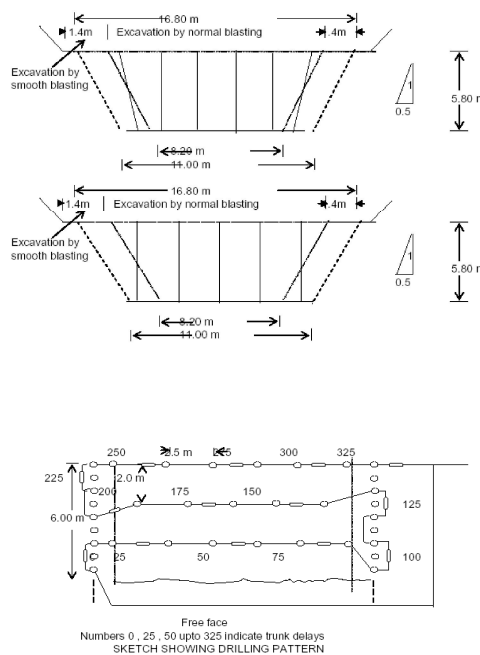
ABSTRACT:

A. Cost of Materials	Rs:	29109.35
B. Hire charges of Machinery	Rs:	56637.53
C. Cost of Labour	Rs:	17617.86
Total	Rs:	103364.74

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	14073.11
Total cost for	386.00 Cum	Rs:	117437.85
Rate per Cum	(A+B+C+D)/386	Rs.	304.20

IRR-CAW-1-10 Excavation in hard rock of all toughness including boulders above 1.2 m dia. by approved controlled blasting methods for canals, cut-off trench of embankment etc., including controlling fly-rock by muffling arrangements such as placing 50 x 50 mm opening chain link mesh or waste tyres and sand bags, monitoring ground vibrations at specified locations, cost of all materials, machinery, labour, placing excavated rock neatly in approved dump area or other place as directed etc., complete with lead upto 1 km and all lifts.

Note: i) The rate under this item shall be adopted for canals designed for carrying capacity of more than 15 cumecs or where the average depth of excavation in hard rock is more than 3 m.
ii) The rate under this item shall be adopted where the control of fly-rock and ground vibrations is required.



DATA

RATE ANALYSISUNIT : **386.00 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of T.C bit 100 mm dia	Rm	104.00	149.75	15574.00
2	Use rate of Extension rod with coupling sleeve	Rm	104.00	5.64	586.56
3	Use rate of Jack hammer drill rod 1.6 m	Rm	12.00	23.80	285.60
	reconditioning charges @ 10%				28.56
4	Use rate of 50 m air hose 50 mm 1 No.	Hour	10.50	15.88	166.69
	Use rate of 25 mm air hose 2 Nos	Hour	2.00	10.25	20.50
5	High strength ANFO booster	kg	38.00	59.62	2265.64
6	ANFO	kg	155.00	38.70	5998.81
7	Diesel oil	ltr	35.00	75.75	2651.25

8	Explosive small dia (Kelvex-220)	kg	4.00	56.48	225.94
9	Ordinary detonators	Nos	20.00	5.23	104.60
10	Shock tube detonators	Rm	120.00	32.43	3891.12
11	Noiseless trunk line delays	Nos	12.00	15.69	188.28
12	Detonating fuse coil	Rm	20.00	7.32	146.44
13	Use rate of chain link wire mesh	sqm	132.00	184.50	24354.00
14	Use rate of sand bag	Nos	110.00	5.12	563.20
15	Sundries	LS	20.00	31.00	620.00
Total cost of Materials				Rs:	57671.18

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipplers 5 cum capacity	Hour	30.00	363.50	10905.00
	Fuel / Energy charges	Hour	30.00	393.70	11811.00
2	Shovel 0.85 cum capacity	Hour	10.00	1388.50	13885.00
	Fuel / Energy charges	Hour	10.00	1145.70	11457.00
3	Angle dozer	Hour	2.00	1395.70	2791.40
	Fuel / Energy charges	Hour	2.00	801.50	1603.00
4	Air compressor 8.5 cmm (diesel)	Hour	12.50	224.20	2802.50
	Fuel / Energy charges	Hour	12.50	1171.80	14647.50
5	Waggon drill	Hour	11.50	153.40	1764.10
	Fuel / Energy charges	Hour	11.50	0.00	0.00
6	Jack hammer	Hour	2.00	16.10	32.20
	Fuel / Energy charges	Hour	2.00	0.00	0.00
Total hire charges of Machinery				Rs:	71698.70

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Tipper	Hour	30.00	193.10	5793.00
2	Crew for Shovel	Hour	10.00	257.40	2574.00
3	Crew for Dozer	Hour	2.00	257.40	514.80
4	Crew for Air compressor	Hour	12.50	232.10	2901.25
5	Crew for Waggon drill	Hour	11.50	308.90	3552.35
6	Crew for Jack hammer	Hour	2.00	362.70	725.40
7	work inspector	Day	1.50	500.00	750.00
8	Blaster	Day	0.50	550.00	275.00
9	Helper blaster	Day	0.50	440.00	220.00
10	Stone chiseller CI - II	Day	1.00	440.00	440.00
11	Stone breaker	Day	1.00	440.00	440.00
12	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	20185.80

labour component/unit qty 52.30

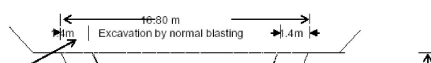
Add contractor's profit and overhead charges 13.615% 7.10

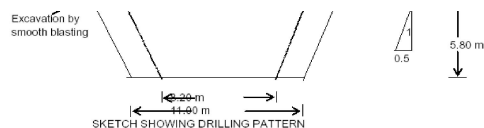
labour component/unit qty (including contractor's profit) **59.40****ABSTRACT:**

A. Cost of Materials	Rs:	57671.18
B. Hire charges of Machinery	Rs:	71698.70
C. Cost of Labour	Rs:	20185.80
	Total	Rs: 149555.68
Add for blasting studies & monitoring vibrations etc 0.50%	Rs:	747.78
	Total	Rs: 150303.46
D. Add for contractor's profit and overheads on 13.615%	Rs:	20463.82
Total cost for 386.00 cum	Rs:	170767.28
Rate per cum (A+B+C+D)/386	Rs.	442.40

IRR-CAW-1-11 Excavation in hard rock of all toughness including boulders above 1.2 m dia. for dressing canal sides neatly on either side to required profile by line drilling and smooth blasting including removing under-cuts by chiselling / hammering, placing the excavated rock neatly in dump area or other place as directed, cost of all materials, machinery, labour etc., complete with lead upto 1 km and all lifts.

- Note:**
- For excavation of canal below free board level combination of normal / controlled blasting and line drilling and smooth blasting shall be adopted to obtain neat side slopes. For the purpose of payment 1 m width of excavation on either side shall be treated as excavation by line drilling and smooth blasting and remaining portion shall be treated as excavation by normal / controlled blasting as the case may be.
 - The rate under this item shall be adopted for canals designed for carrying capacity of more than 15 cumecs or where the average depth of excavation in hard rock is more than 3 m.
 - The rate includes controlling fly-rock wherever required.
 - The rate under this item shall be paid only on ascertaining that the excavated face has come off neatly as per specifications or atleast 50 percent of smooth blast holes are visible for inspection and are spaced at specified interval.
 - In case, where the above criteria is not fulfilled payment shall be restricted to rate provided for excavation by normal blasting or controlled blasting as the case may be.





DATA

RATE ANALYSIS

UNIT :

97.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of T.C bit 100 mm dia	Rm	121.00	149.75	18119.75
2	Use rate of Extension rod with coupling sleeve	Rm	121.00	5.64	682.44
3	Use rate of Jack hammer drill rod 1.6 m	Rm	3.00	23.80	71.40
	reconditioning charges @ 10%				7.14
4	Use rate of 50 m air hose 50 mm 1 No.	Hour	12.00	15.88	190.50
	Use rate of 25 mm air hose 2 Nos	Hour	0.50	10.25	5.13
5	High strength ANFO booster	kg	5.00	59.62	298.11
6	ANFO	kg	19.00	38.70	735.34
7	Diesel oil	ltr	4.50	75.75	340.88
8	Explosive small dia (Kelvex-220)	kg	1.00	56.48	56.48
9	Ordinary detonators	Nos	5.00	5.23	26.15
10	Detonating shock tube	Rm	70.00	32.43	2269.82
11	Noiseless trunk line delays	Nos	4.00	15.69	62.76
12	Fuse coil	Rm	10.00	7.32	73.22
13	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	23001.11

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipplers 5 cum capacity	Hour	6.24	363.50	2268.24
	Fuel / Energy charges	Hour	6.24	393.70	2456.69
2	Shovel 0.85 cum capacity	Hour	1.56	1388.50	2166.06
	Fuel / Energy charges	Hour	1.56	1145.70	1787.29
3	Angle dozer	Hour	0.50	1395.70	697.85
	Fuel / Energy charges	Hour	0.50	801.50	400.75
4	Air compressor 8.5 cmm (diesel)	Hour	13.45	224.20	3015.49
	Fuel / Energy charges	Hour	13.45	1171.80	15760.71
5	Waggon drill	Hour	13.20	153.40	2024.88
	Fuel / Energy charges	Hour	13.20	0.00	0.00
6	Jack hammer	Hour	0.50	16.10	8.05
	Fuel / Energy charges	Hour	0.50	0.00	0.00
Total hire charges of Machinery				Rs:	30586.01

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Tipper	Hour	5.24	193.10	1011.84
2	Crew for Shovel	Hour	1.56	257.40	401.54
3	Crew for Dozer	Hour	0.50	257.40	128.70
4	Crew for Air compressor	Hour	13.45	232.10	3121.75
5	Crew for Waggon drill	Hour	13.45	308.90	4154.71
6	Crew for Jack hammer	Hour	0.50	362.70	181.35
7	work inspector	Day	0.50	500.00	250.00
8	Blaster	Day	0.50	550.00	275.00
9	Helper blaster	Day	0.50	440.00	220.00
10	Stone breaker	Day	1.00	440.00	440.00
11	Stone chiseller CI- II	Day	1.00	440.00	440.00
12	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	11424.89

labour component/unit qty 117.80

Add contractor's profit and overhead charges 13.615% 16.00

labour component/unit qty (including contractor's profit) **133.80****ABSTRACT:**

A. Cost of Materials

Rs: 23001.11

B. Hire charges of Machinery

Rs: 30586.01

C. Cost of Labour

Rs: 11424.89

Total Rs: 65012.01

Add for blasting studies & monitoring vibrations etc 0.50%

Rs: 325.06

Total Rs: 65337.07

D. Add for contractor's profit and overheads on 13.615%

Rs: 8895.64

Total cost for 97.00 cum

Rs: 74232.71

Rate per cum (A+B+C+D)/97

Rs. **765.30**

IRR-CAW-2 **EMBANKMENT WORKS USING BORROW AREA SOIL :**

IRR-CAW-2-1 **Providing impervious hearting embankment** with selected soil from **approved borrow areas** in **layers of 25 cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to density control of **not less than 98 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA: **RATE ANALYSIS** UNIT : **412.80 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer	Hour	3.40	1395.70	4745.38
	Fuel / Energy charges	Hour	3.40	801.50	2725.10
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 4 Nos.	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Vibratory Roller 8 tonne	Hour	5.10	1092.00	5569.20
	Fuel / Energy charges	Hour	5.10	1354.00	6905.40
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	59094.28

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.40	257.40	875.16
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	2.00	122.30	244.60
5	Crew for Water tanker	Hour	4.00	193.10	772.40
6	Crew for Roller	Hour	5.10	290.20	1480.02
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	14210.58

labour component/unit qty 34.40

Add contractor's profit and overhead charges 13.615% 4.70

labour component/unit qty (including contractor's profit) **39.10**

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	59094.28
C. Cost of Labour	Rs:	14210.58
Total	Rs:	73304.86

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 412.80 cum Rs: **83285.32**

Rate per cum (A+B+C+D)/412.80 Rs. **201.80**

IRR-CAW-2-2 **Providing impervious hearting embankment** with selected soil from **approved borrow areas** in **layers of 25 cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA: **RATE ANALYSIS** UNIT : **412.80 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
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1	Angle dozer 90 hp	Hour	3.40	1395.70	4745.38
	Fuel / Energy charges	Hour	3.40	801.50	2725.10
2	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5 cum	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Vibratory Roller 8 tonne	Hour	4.18	1092.00	4564.56
	Fuel / Energy charges	Hour	4.18	1354.00	5659.72
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	56843.96

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.40	257.40	875.16
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	2.00	122.30	244.60
5	Crew for Water tanker	Hour	4.00	193.10	772.40
6	Crew for Roller	Hour	4.18	290.20	1213.04
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	13943.60

labour component/unit qty

33.80

Add contractor's profit and overhead charges

13.615% 4.60

labour component/unit qty (including contractor's profit)

38.40**ABSTRACT:**

A. Cost of Materials

Rs: 0.00

B. Hire charges of Machinery

Rs: 56843.96

C. Cost of Labour

Rs: 13943.60

Total Rs: **70787.56**

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Rs: 9637.73

Total cost for

412.80 cum

Rs: **80425.29****Rate per cum**

(A+B+C+D)/412.80

Rs: **194.80**

IRR-CAW-2-3

Providing semi-pervious / pervious casing embankment using soil from **approved borrow area**in **layers of 25 cm** before compaction including cost of all materials, machinery, labour,

all operations such as excavation, sortingout, transporting, spreading in layer of specified

thickness, breaking clods, sectioning, **watering**, compacting to density control of **not less****than 98 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller****etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

412.80 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.40	1395.70	4745.38
	Fuel / Energy charges	Hour	3.40	801.50	2725.10
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 3 Nos.	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Vibratory Roller 8 tonne	Hour	5.10	1092.00	5569.20
	Fuel / Energy charges	Hour	5.10	1354.00	6905.40
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	59001.28

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.40	257.40	875.16
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	2.00	122.30	244.60

5	Crew for Water tanker	Hour	4.00	193.10	772.40
6	Crew for Roller	Hour	5.10	290.20	1480.02
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	14210.58

labour component/unit qty 34.40

Add contractor's profit and overhead charges 13.615% 4.70

labour component/unit qty (including contractor's profit) **39.10****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 59001.28

C. Cost of Labour Rs: 14210.58

Total Rs: **73211.86**

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Rs: 9967.79

Total cost for 412.80 cum Rs: **83179.65****Rate per cum** (A+B+C+D)/412.80 Rs: **201.50**

IRR-CAW-2-4

Providing semi-pervious / pervious casing embankment using soil from **approved borrow area**

in **layers of 25cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSISUNIT : **412.80 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.40	1395.70	4745.38
	Fuel / Energy charges	Hour	3.40	801.50	2725.10
2	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5 cum	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Vibratory Roller 8 tonne	Hour	4.17	1092.00	4553.64
	Fuel / Energy charges	Hour	4.17	1354.00	5646.18
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	56819.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.40	257.40	875.16
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	2.00	122.30	244.60
5	Crew for Water tanker	Hour	4.00	193.10	772.40
6	Crew for Roller	Hour	4.00	290.20	1160.80
7	work inspector	Day	4.17	500.00	2085.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	14976.36

labour component/unit qty 36.30

Add contractor's profit and overhead charges 13.615% 4.90

labour component/unit qty (including contractor's profit) **41.20****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 56819.50

C. Cost of Labour Rs: 14976.36

Total Rs: **71795.86**

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Rs: 9775.01

Total cost for 412.80 cum Rs: **81570.87****Rate per cum** (A+B+C+D)/412.80 Rs: **197.60**

IRR-CAW-2-5

Providing semi-pervious / pervious casing embankment using soil from **approved borrow area**in **layers of 25cm** before compaction including cost of all materials, machinery, labour,

all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, compacting each layer **without watering** to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

412.80 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.40	1395.70	4745.38
	Fuel / Energy charges	Hour	3.40	801.50	2725.10
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 3 Nos.	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Vibratory Roller 8 tonne	Hour	4.17	1092.00	4553.64
	Fuel / Energy charges	Hour	4.17	1354.00	5646.18
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	53490.70

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.40	257.40	875.16
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Roller	Hour	4.17	290.20	1210.13
5	work inspector	Day	2.00	500.00	1000.00
6	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	12923.69

labour component/unit qty 31.30
 Add contractor's profit and overhead charges 13.615% 4.30
 labour component/unit qty (including contractor's profit) **35.60**

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 53490.70
 C. Cost of Labour Rs: 12923.69
 Total Rs: **66414.39**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 9042.32
 Total cost for 412.80 cum Rs: **75456.71**
Rate per cum (A+B+C+D)/412.80 Rs. 182.80

IRR-CAW-2-6

Providing hearding / casing embankment with homogeneous soil from approved borrow areas in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to density control of **not less than 98 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

677.28 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer	Hour	6.06	1395.70	8457.94
	Fuel / Energy charges	Hour	6.06	801.50	4857.09
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 6 Nos.	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60

5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
6	Vibratory Roller 8 tonne	Hour	7.53	1092.00	8222.76
	Fuel / Energy charges	Hour	7.53	1354.00	10195.62
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	84522.71

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	6.06	257.40	1559.84
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	7.53	290.20	2185.21
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	19198.55

labour component/unit qty 28.30

Add contractor's profit and overhead charges 13.615% 3.90

labour component/unit qty (including contractor's profit) **32.20****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	84522.71
C. Cost of Labour	Rs:	19198.55
Total	Rs:	103721.26

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 677.28 cum Rs: **117842.91****Rate per cum** (A+B+C+D)/677.28 Rs: **174.00**

IRR-CAW-2-7

Providing hearning / casing embankment with homogeneous soil from approved borrow

areas in **layers of 25 cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

677.28 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	6.06	1395.70	8457.94
	Fuel / Energy charges	Hour	6.06	801.50	4857.09
2	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5 cum 3 Nos	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
6	Vibratory Roller 8 tonne	Hour	6.16	1092.00	6726.72
	Fuel / Energy charges	Hour	6.16	1354.00	8340.64
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	81264.69

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	6.06	257.40	1559.84
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	6.16	290.20	1787.63
7	work inspector	Day	2.00	500.00	1000.00

8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	18800.98
labour component/unit qty			27.80		
Add contractor's profit and overhead charges			13.615%	3.80	
labour component/unit qty (including contractor's profit)				31.60	

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	81264.69
C. Cost of Labour	Rs:	18800.98
Total	Rs:	100065.67

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	13623.94
Total cost for	677.28 cum	Rs:	113689.61
Rate per cum	(A+B+C+D)/677.28	Rs:	167.90

IRR-CAW-2-8

Providing casing embankment using homogeneous soil from approved borrow area

in layers of **25 cm** before compaction including cost of all materials, machinery, labour, all operations such as excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, compacting each layer **without watering** to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller** etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

677.28 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	6.06	1395.70	8457.94
	Fuel / Energy charges	Hour	6.06	801.50	4857.09
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 4 Nos.	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Vibratory Roller 8 tonne	Hour	6.16	1092.00	6726.72
	Fuel / Energy charges	Hour	6.16	1354.00	8340.64
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	76317.99

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	6.06	257.40	1559.84
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Roller	Hour	6.16	290.20	1787.63
5	work inspector	Day	2.00	500.00	1000.00
6	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	17275.48

labour component/unit qty	25.50
Add contractor's profit and overhead charges	13.615% 3.50
labour component/unit qty (including contractor's profit)	29.00

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	76317.99
C. Cost of Labour	Rs:	17275.48
Total	Rs:	93593.47

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	12742.75
Total cost for	677.28 cum	Rs:	106336.22
Rate per cum	(A+B+C+D)/677.28	Rs:	157.00

IRR-CAW-3

EMBANKMENT WORKS USING DUMP AREA SOIL :

IRR-CAW-3-1

Providing impervious hearting embankment with soil from approved dump areas in layers of **25 cm** before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to achieve density control of **not less than 98 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller** etc., complete **with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

735.36 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer	Hour	4.04	1395.70	5638.63
	Fuel / Energy charges	Hour	4.04	801.50	3238.06
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tippers 5.00 cum capacity 6 Nos.	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
6	Vibratory Roller 8 tonne	Hour	7.50	1092.00	8190.00
	Fuel / Energy charges	Hour	7.50	1354.00	10155.00
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	80010.99

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.58	257.40	921.49
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	7.50	290.20	2176.50
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	19351.49

labour component/unit qty 26.30

Add contractor's profit and overhead charges 13.615% 3.60

labour component/unit qty (including contractor's profit) **29.90****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	80010.99
C. Cost of Labour	Rs:	19351.49
Total	Rs:	99362.48

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 735.36 cum Rs: **112890.68****Rate per cum** (A+B+C+D)/735.36 Rs. **153.50**

IRR-CAW-3-2

Providing impervious hearting embankment with soil from approved dump areas in layers

of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to achieve density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc.,complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

735.36 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	4.04	1395.70	5638.63
	Fuel / Energy charges	Hour	4.04	801.50	3238.06
2	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tippers 5 cum	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20

6	Vibratory Roller 8 tonne	Hour	6.13	1092.00	6693.96
	Fuel / Energy charges	Hour	6.13	1354.00	8300.02
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	76752.97

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	4.04	257.40	1039.90
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	6.13	290.20	1778.93
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	19072.32

labour component/unit qty 25.90

Add contractor's profit and overhead charges 13.615% 3.50

labour component/unit qty (including contractor's profit) **29.40****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	76752.97
C. Cost of Labour	Rs:	19072.32
Total	Rs:	95825.29

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	13046.61
Total cost for	735.36 cum	Rs:	108871.90
Rate per cum	(A+B+C+D)/735.36	Rs.	148.10

IRR-CAW-3-3 **Providing semi-pervious / pervious casing embankment using soil from approved dump area in layers of 25 cm before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

768.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	4.22	1395.70	5889.85
	Fuel / Energy charges	Hour	4.22	801.50	3382.33
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 6 Nos	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
6	Vibratory Roller 8 tonne	Hour	7.82	1092.00	8539.44
	Fuel / Energy charges	Hour	7.82	1354.00	10588.28
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	81189.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	4.22	257.40	1086.23
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	7.82	290.20	2269.36
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	6.00	400.00	2400.00

Total cost of Labour		Rs:	19609.09
labour component/unit qty	25.50		
Add contractor's profit and overhead charges	13.615%	3.50	
labour component/unit qty (including contractor's profit)	29.00		

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	81189.20
C. Cost of Labour	Rs:	19609.09
Total	Rs:	100798.30

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	13723.69
Total cost for	768.00 cum	Rs:	114521.99
Rate per cum	(A+B+C+D)/768	Rs:	149.10

IRR-CAW-3-4 **Providing semi-pervious / pervious casing embankment** using soil from **approved dump area** in **layers of 25 cm** before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified thickness, breaking clods, sectioning, **watering**, compacting each layer to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA:

RATE ANALYSISUNIT : **768.00 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	4.22	1395.70	5889.85
	Fuel / Energy charges	Hour	4.22	801.50	3382.33
2	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tippers 5 cum of 6 Nos	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
6	Vibratory Roller 8 tonne	Hour	6.40	1092.00	6988.80
	Fuel / Energy charges	Hour	6.40	1354.00	8665.60
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	77808.88

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	4.22	257.40	1086.23
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	6.40	290.20	1857.28
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	19197.01

labour component/unit qty	25.00
Add contractor's profit and overhead charges	13.615% 3.40
labour component/unit qty (including contractor's profit)	28.40

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	77808.88
C. Cost of Labour	Rs:	19197.01
Total	Rs:	97005.89

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	13207.35
Total cost for	768.00 cum	Rs:	110213.24
Rate per cum	(A+B+C+D)/768	Rs:	143.50

IRR-CAW-3-5 **Providing semi-pervious / pervious casing embankment** using soil from **approved dump area** in **layers of 25 cm** before compaction including cost of all materials, machinery, labour, all operations such as re-excavation, sorting out, transporting, spreading in layer of specified

thickness, breaking clods, sectioning, compacting each layer **without watering** to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with initial lead upto 1 km and all lifts.**

DATA: **RATE ANALYSIS** UNIT : **768.00 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	4.22	1395.70	5889.85
	Fuel / Energy charges	Hour	4.22	801.50	3382.33
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 6 Nos.	Hour	48.00	363.50	17448.00
	Fuel / Energy charges	Hour	48.00	393.70	18897.60
4	Vibratory Roller 8 tonne	Hour	6.40	1092.00	6988.80
	Fuel / Energy charges	Hour	6.40	1354.00	8665.60
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	72862.18

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	4.22	257.40	1086.23
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	48.00	193.10	9268.80
4	Crew for Roller	Hour	6.40	290.20	1857.28
5	work inspector	Day	2.00	500.00	1000.00
6	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	17671.51

labour component/unit qty 23.00
 Add contractor's profit and overhead charges 13.615% 3.10
 labour component/unit qty (including contractor's profit) **26.10**

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 72862.18
 C. Cost of Labour Rs: 17671.51
 Total Rs: **90533.69**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 12326.16
 Total cost for 768.00 cum Rs: **102859.85**
Rate per cum (A+B+C+D)/768 Rs: 133.90

IRR-CAW-4 **EMBANKMENT WORKS USING EXCAVATED SOIL :**

IRR-CAW-4-1 **Providing impervious hearting embankment with soil collected in embankment area in**
 heaps as part of disposal of excavated soil from canal including cost of all materials,machinery,
 labour, all operations such as sortingout, spreading in **layer of 25 cm** before compaction,
 breaking clods,sectioning, **watering** and compacting each layer to density control of **not less**
than 98 percent or as stipulated by **Sheep foot roller / Vibratory roller/**
8 to 10 tonne power roller etc., complete with lead upto 1 km for water.

DATA: **RATE ANALYSIS** UNIT : **600.00 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.60	1395.70	5024.52
	Fuel / Energy charges	Hour	3.60	801.50	2885.40
2	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
3	Water tanker 8000 ltr	Hour	5.00	359.00	1795.00
	Fuel / Energy charges	Hour	5.00	393.70	1968.50
4	Vibratory Roller 8 tonne	Hour	7.30	1092.00	7971.60
	Fuel / Energy charges	Hour	7.30	1354.00	9884.20

5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	29928.72

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.60	257.40	926.64
2	Crew for Pump	Hour	3.00	122.30	366.90
3	Crew for Water tanker	Hour	5.00	193.10	965.50
4	Crew for Roller	Hour	7.30	290.20	2118.46
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	6477.50

labour component/unit qty 10.80

Add contractor's profit and overhead charges 13.615% 1.50

labour component/unit qty (including contractor's profit) **12.30****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	29928.72
C. Cost of Labour	Rs:	6477.50
Total	Rs:	36406.22

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 600.00 cum Rs: **41362.93****Rate per cum (A+B+C+D)/600 Rs. 68.90**

IRR-CAW-4-2

Providing impervious hearting embankment with soil collected in embankment area in

heaps as part of disposal of excavated soil from canal including cost of all materials, machinery,

labour, all operations such as sorting out, spreading in **layer of 25 cm** before compaction,breaking clods, sectioning, **watering** and compacting each layer to density control of **not less****than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/****8 to 10 tonne power roller etc., complete with lead upto 1 km for water.**

DATA:

RATE ANALYSIS

UNIT :

600.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.60	1395.70	5024.52
	Fuel / Energy charges	Hour	3.60	801.50	2885.40
2	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
3	Water tanker 8000 ltr	Hour	5.00	359.00	1795.00
	Fuel / Energy charges	Hour	5.00	393.70	1968.50
4	Vibratory Roller 8 tonne	Hour	6.06	1092.00	6617.52
	Fuel / Energy charges	Hour	6.06	1354.00	8205.24
5	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	26988.68

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.60	257.40	926.64
2	Crew for Pump	Hour	3.00	122.30	366.90
3	Crew for Water tanker	Hour	5.00	193.10	965.50
4	Crew for Roller	Hour	6.06	290.20	1758.61
5	work inspector	Day	2.00	500.00	1000.00
6	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	6617.65

labour component/unit qty 11.00

Add contractor's profit and overhead charges 13.615% 1.50

labour component/unit qty (including contractor's profit) **12.50****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	26988.68
C. Cost of Labour	Rs:	6617.65
Total	Rs:	33606.33

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 600.00 cum Rs: **38181.83**

Rate per cum (A+B+C+D)/600 Rs. 63.60

IRR-CAW-4-3 **Providing semi-pervious / pervious casing hearting embankment using soil collected in heaps in embankment area** as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting-out, spreading in **layers of 25 cm** before compaction, breaking clods, sectioning, **watering** and compacting each layer to density control of **not less than 98 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with lead upto 1 km for water.**

DATA: RATE ANALYSIS UNIT : 600.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.60	1395.70	5024.52
	Fuel / Energy charges	Hour	3.60	801.50	2885.40
2	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
3	Water tanker 8000 ltr	Hour	5.00	359.00	1795.00
	Fuel / Energy charges	Hour	5.00	393.70	1968.50
4	Vibratory Roller 8 tonne	Hour	7.30	1092.00	7971.60
	Fuel / Energy charges	Hour	7.30	1354.00	9884.20
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	29928.72

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.60	257.40	926.64
2	Crew for Pump	Hour	3.00	122.30	366.90
3	Crew for Water tanker	Hour	5.00	193.10	965.50
4	Crew for Roller	Hour	7.30	290.20	2118.46
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	6477.50

labour component/unit qty 10.80

Add contractor's profit and overhead charges 13.615% 1.50

labour component/unit qty (including contractor's profit) 12.30

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 29928.72
 C. Cost of Labour Rs: 6477.50
 Total Rs: 36406.22

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 4956.71

Total cost for 600.00 cum Rs: 41362.93

Rate per cum (A+B+C+D)/600 Rs. 68.90

IRR-CAW-4-4 **Providing semi-pervious / pervious casing embankment using soil collected in heaps in embankment area** as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting-out, spreading in **layers of 25 cm** before compaction, breaking clods, sectioning, **watering** and compacting each layer to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete with lead upto 1 km for water.**

DATA: RATE ANALYSIS UNIT : 600.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.60	1395.70	5024.52
	Fuel / Energy charges	Hour	3.60	801.50	2885.40
2	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
3	Water tanker 8000 ltr	Hour	5.00	359.00	1795.00

4	Fuel / Energy charges	Hour	5.00	393.70	1968.50
	Vibratory Roller 8 tonne	Hour	6.1	1092.00	6617.52
	Fuel / Energy charges	Hour	6.1	1354.00	8205.24
5	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	26988.68

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.60	257.40	926.64
2	Crew for Pump	Hour	3.00	122.30	366.90
3	Crew for Water tanker	Hour	5.00	193.10	965.50
4	Crew for Roller	Hour	6.1	290.20	1758.61
5	work inspector	Day	2.00	500.00	1000.00
6	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	6617.65

labour component/unit qty 11.00

Add contractor's profit and overhead charges 13.615% 1.50

labour component/unit qty (including contractor's profit) **12.50****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	26988.68
C. Cost of Labour	Rs:	6617.65
Total	Rs:	33606.33

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 4575.5

Total cost for 600.00 cum Rs: **38181.83****Rate per cum** (A+B+C+D)/600 Rs. **63.60**

IRR-CAW-4-5

Providing semi-pervious / pervious casing embankment using soil collected in heaps in embankment area as part of disposal of excavated soil from canal including cost of all materials, machinery, labour, all operations such as sorting-out, spreading in **layers of 25 cm** before compaction, breaking clods, sectioning and compacting each layer **without** watering to density control of **not less than 95 percent** or as stipulated by **Sheep foot roller / Vibratory roller/ 8 to 10 tonne power roller etc., complete.**

DATA:

RATE ANALYSIS

UNIT :

600.00 cum**A. MATERIALS:**

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Null		0.00	0.00	
Total cost of Materials				Rs:	0.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.60	1395.70	5024.52
	Fuel / Energy charges	Hour	3.60	801.50	2885.40
2	Vibratory Roller 8 tonne	Hour	6.06	1092.00	6617.52
	Fuel / Energy charges	Hour	6.06	1354.00	8205.24
3	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	22794.68

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.60	257.40	926.64
2	Crew for Roller	Hour	6.06	290.20	1758.61
3	work inspector	Day	1.00	500.00	500.00
4	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	4785.25

labour component/unit qty 8.00

Add contractor's profit and overhead charges 13.615% 1.10

labour component/unit qty (including contractor's profit) **9.10****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	22794.68
C. Cost of Labour	Rs:	4785.25
Total	Rs:	27579.93

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 3755.01

Total cost for 600.00 cum Rs: **31334.94****Rate per cum** (A+B+C+D)/600 Rs. **52.20**

IRR-CAW-4-6

Providing compacted embankment for field irrigation channels with gravely soil from approved borrow area including sorting out, spreading in **layers of 15 cm** thickness, breaking clods, **watering**, compacting, dressing sides to required slopes etc., complete **with lead upto 50 m and all lifts.**

DATA

RATE ANALYSIS

UNIT :

25.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00		
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)	Hour	1.00	8.30	8.30
	Fuel / Energy charges	Hour	1.00	104.20	104.20
Total hire charges of Machinery				Rs:	112.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for pump	Hour	1.00	122.30	122.30
2	work inspector	Day	1.00	500.00	500.00
3	Crowbarman for loosening soil	Day	2.50	440.00	1100.00
4	mazdoor				
	For excavation at borrow area	Day	5.00	400.00	2000.00
	For spreading / levelling / sectioning	Day	2.50	400.00	1000.00
	for loading soil	Day	5.00	400.00	2000.00
5	Cartman with Bullock cart for water	Day	1.00	465.00	465.00
6	Bullock drawn roller for rolling	Day	1.00	465.00	465.00
Total cost of Labour				Rs:	7652.30

labour component/unit qty 306.10

Add contractor's profit and overhead charges 13.615% 41.70

labour component/unit qty (including contractor's profit) **347.80****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	112.50
C. Cost of Labour	Rs:	7652.30
Total	Rs:	7764.80

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	1057.18
Total cost for	25.00 cum	Rs:	8821.98
Rate per cum	(A+B+C+D)/25	Rs.	352.90

IRR-CAW-5

FOUNDATION FILLING WORKS :

IRR-CAW-5-1

Providing **rubble and sand filling in layers of 22.5 to 30 cm** including cost of all materials, machinery, labour, watering, ramming etc., complete **with initial lead upto 50 m and all lifts.**

DATA

RATE ANALYSIS

UNIT :

10.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble stones at quarry	cum	10.00	303.00	3030.00
2	Sand for filling	cum	4.00	100.00	400.00
Total cost of Materials				Rs:	3430.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	1600.00

labour component/unit qty 160.00

Add contractor's profit and overhead charges 13.615% 21.80

labour component/unit qty (including contractor's profit) **181.80****ABSTRACT:**

A. Cost of Materials	Rs:	3430.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1600.00
Total	Rs:	5030.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	684.83
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Total cost for	10.00 cum	Rs:	5714.83
Rate per cum	(A+B+C+D)/10	Rs.	571.50

IRR-CAW-5-2 **Providing rubble and Murum filling in layers of 22.5 to 30 cm** including cost of all materials, machinery, labour, watering, ramming etc., complete with **initial lead upto 50 m and all lifts.**

DATA **RATE ANALYSIS** UNIT : **10.00 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble stones at quarry	cum	10.00	303.00	3030.00
2	Murum	cum	4.00	185.00	740.00
Total cost of Materials				Rs:	3770.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	1600.00

labour component/unit qty 160.00
 Add contractor's profit and overhead charges 13.615% 21.80
 labour component/unit qty (including contractor's profit) **181.80**

ABSTRACT:

A. Cost of Materials	Rs:	3770.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1600.00
Total	Rs:	5370.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 731.13
 Total cost for 10.00 cum Rs: **6101.13**
Rate per cum **(A+B+C+D)/10** Rs. **610.10**

IRR-CAW-5-3 **Providing and laying 25 cm thick sand blanket below embankment** including cost of all materials, machinery, labour, spreading to specified thickness etc., complete with initial lead **upto 50 m and all lifts.**

DATA **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand for Filling	cum	25.00	100.00	2500.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	2500.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	2000.00

labour component/unit qty 20.00
 Add contractor's profit and overhead charges 13.615% 2.70
 labour component/unit qty (including contractor's profit) **22.70**

ABSTRACT:

A. Cost of Materials	Rs:	2500.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2000.00
Total	Rs:	4500.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 612.68
 Total cost for 100.00 sqm Rs: **5112.68**
Rate per sqm **(A+B+C+D)/100** Rs. **51.10**

IRR-CAW-5-3-A Providing and laying sand blanket below embankment including cost of all

(New Item3- 2011--

12) materials, machinery, labour, spreading to specified thickness etc., complete with initial lead upto 50 m and all lifts.

DATA

RATE ANALYSIS

UNIT :

100.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand for Filling	cum	100.00	100.00	10000.00
			0.00	0.00	
Total cost of Materials				Rs:	10000.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	8000.00

labour component/unit qty 80.00
 Add contractor's profit and overhead charges 13.615% 10.90
 labour component/unit qty (including contractor's profit) **90.90**

ABSTRACT:

A. Cost of Materials	Rs:	10000.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	8000.00
Total	Rs:	18000.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2450.7
 Total cost for 100.00 cum Rs: **20450.70**
Rate per cum (A+B+C+D)/100 Rs. **204.50**

IRR-CAW-5-4

Providing and constructing dry rubble rock-toe using rubble and stone chips from approved source including cost of all materials, machinery, labour, hand packing rubble and stone chips, finishing top and sides to required slopes etc., complete with initial lead upto 50 m and all lifts.

DATA

RATE ANALYSIS

UNIT :

100.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble	cum	100.00	303.00	30300.00
2	Stone chips	cum	15.00	333.00	4995.00
3	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	35357.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class-II	Day	7.00	440.00	3080.00
3	mazdoor	Day	19.00	400.00	7600.00
Total cost of Labour				Rs:	11180.00

labour component/unit qty 111.80
 Add contractor's profit and overhead charges 13.615% 15.20
 labour component/unit qty (including contractor's profit) **127.00**

ABSTRACT:

A. Cost of Materials	Rs:	35357.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	11180.00
Total	Rs:	46537.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 6336.01
 Total cost for 100.00 cum Rs: **52873.01**
Rate per cum (A+B+C+D)/100 Rs. **528.70**

IRR-CAW-5-5 **Providing and constructing longitudinal and cross graded filter drains using sand and 20 mm down graded aggregates satisfying specified filter criteria in layers as per specifications including cost of all materials, machinery, labour, laying to required slopes, compaction etc., complete with initial lead upto 50 m and all lifts.**

DATA

RATE ANALYSIS

UNIT :

100.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand (Un-Screened)	cum	76.80	100.00	7680.00
2	Coarse aggregate 20-10 mm 75 %	cum	17.40	1182.00	20566.80
3	Coarse aggregate 10 mm down 25 %	cum	5.80	860.00	4988.00
Total cost of Materials				Rs:	33234.80

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	36.00	400.00	14400.00
Total cost of Labour				Rs:	14900.00

labour component/unit qty 149.00

Add contractor's profit and overhead charges 13.615% 20.30

labour component/unit qty (including contractor's profit) **169.30****ABSTRACT:**

A. Cost of Materials Rs: 33234.80

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 14900.00

Total Rs: **48134.80**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 6553.55

Total cost for 100.00 cum Rs: **54688.35****Rate per cum (A+B+C+D)/100 Rs. 546.90**

IRR-CAW-5-6 **Laying Longitudinal Drains and Transverse drains of Size 600 x600 x750 mm in Bed and filling with 12 mm to 40 mm HG machine Crushed metal and sand in bed including Excavation of drains and Cost of procuring of all materials including 50 m lead and for all lifts.**

DATA:

RATE ANALYSIS

Unit:

100 mt**A. MATERIALS:**

SI.No	Particulars	Unit	Qty	Rate in Rs	Amount in Rs.
1	12 mm to 40 mm metal	Cum	13.5	1133.00	15295.50
2	Sand (Un-Screened)	cum	36	100.00	3600.00
Total cost of Materials				Rs.	18895.5

B. MACHINERY

SI.No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Excavation of drain with Excavator	Cum	45	37.00	1665.00
Total hire charges of Machinery				Total Rs.	1665

C. LABOUR

SI.No	Particulars	Unit	Qty	Rate in Rs	Amount in Rs.
1	Labour for Sand laying	Cum	5.14	400.00	2056.00
2	Labour for Metal laying	Cum	1.93	400.00	772.00
Total cost of Labour				Rs.	2828

labour component/unit qty 28.30

Add contractor's profit and overhead charges 13.615% 3.90

labour component/unit qty (including contractor's profit) **32.20****ABSTRACT**

A. Cost of Materials Rs. 18895.5

B. Hire charges of Machinery Rs. 1665

C. Cost of Labour Rs. 2828

Total Rs: **23388.50**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 3184.34

Total cost for 100.00 mt Rs: **26572.84****Rate per mt (A+B+C+D)/100 Rs. 265.70**

IRR-CAW-5-7 **Laying and fixing of 100 mm Dia 300 mm long precast porous CC plugs in bed and sides** using 0.787 Kgs of cement per each using 20 mm HG metal and placing in local filters of size 600x600x750 mm in size including Excavation of drains and Cost of procuring of all materials **including 50 m lead and for all lifts.** (Thickness of lining=100 mm)

DATA:

DATA

Rate Analysis

Unit

1 Plug

A. MATERIALS:

Sl.No	Particulars	Unit	Qty	Rate in Rs	Amount in Rs.
1	Coarse aggregate	Cum	0.122	1182.00	144.20
2	Sand (Un-Screened)	cum	0.188	100.00	18.78
3	Cement	Kg	0.787	3.88	3.06
Total cost of materials				Rs.	166.04

B. MACHINERY

Sl.No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Excavation of drain with Excavator	Cum	0.27	37.00	9.99
2	Machine mixing Charges	Cum	0.002	389.50	0.78
Total hire charges of Machinery				Total Rs.	10.77

C. LABOUR

Sl.No	Particulars	Unit	Qty	Rate in Rs	Amount in Rs.
1	Mazdoor	Day	0.30	400.00	120.00
Total cost of Labour				Rs.	111.00

labour component/unit qty 111.00

Add contractor's profit and overhead charges 13.615% 15.11

labour component/unit qty (including contractor's profit) **126.11****ABSTRACT**

A. Cost of Materials Rs. 166.04

B. Hire charges of Machinery Rs. 10.77

C. Cost of Labour Rs. 111.00

Total Rs: **287.81**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 39.19

Total cost for 1.00 Plug Rs: **327.00****Rate per each plug** (A+B+C+D)/1.0 Rs. **327.00**

IRR-CAW-5-8 **Providing and constructing 0.50 m thick vertical or inclined graded filter media** consisting of 15 cm thick sand layers and 20 cm thick 20 mm down coarse aggregate layer using approved materials satisfying specified filter criteria as per specifications including cost of all materials, machinery, labour, laying to required slope, compaction etc., complete with initial lead upto **50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

100.00 cum

A. MATERIALS:

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand (Un-Screened)	cum	60.00	100.00	6000.00
2	Coarse aggregate 20-10 mm 75 %	cum	30.00	1182.00	35460.00
3	Coarse aggregate 10 mm down 25 %	cum	10.00	860.00	8600.00
Total cost of Materials				Rs:	50060.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	36.00	400.00	14400.00
Total cost of Labour				Rs:	14900.00

labour component/unit qty 149.00

Add contractor's profit and overhead charges 13.615% 20.30

labour component/unit qty (including contractor's profit) **169.30****ABSTRACT:**

A. Cost of Materials Rs: 50060.00

B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	14900.00
	Total	Rs:	64960.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	8844.3
Total cost for	100.00 cum	Rs:	73804.30
Rate per cum	(A+B+C+D)/100.0	Rs.	738.00

IRR-CAW-5-9

Providing and constructing graded filter media below and behind rock-toe consisting of 20 cm thick sand, 15 cm thick 20 mm down and 15 cm thick 40 mm down size graded coarse aggregates satisfying filter criteria behind rock-toe and 15 cm thick sand, 20 cm thick 20 mm down coarse aggregate and 65 cm thick 40 mm down size coarse aggregate satisfying filter criteria below rock-toe as per specifications including cost of all materials, machinery, labour, laying to required slope, compaction etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

176.00 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand (Un-Screened)	cum	58.77	100.00	5877.00
2	Coarse aggregate 40-20 mm	cum	52.70	1133.00	59709.10
3	Coarse aggregate 20-10 mm	cum	50.70	1182.00	59927.40
4	Coarse aggregate 10 mm down	cum	13.80	860.00	11868.00
Total cost of Materials				Rs:	137381.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoors	Day	60.00	400.00	24000.00
Total cost of Labour				Rs:	24500.00

labour component/unit qty	139.20
Add contractor's profit and overhead charges	13.615% 19.00
labour component/unit qty (including contractor's profit)	158.20

ABSTRACT:

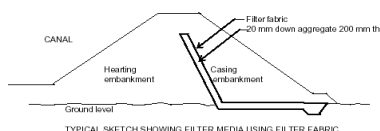
A. Cost of Materials	Rs:	137381.50
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	24500.00
Total	Rs:	161881.50

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	22040.17
Total cost for	176.00 cum	Rs:	183921.67
Rate per cum	(A+B+C+D)/176.0	Rs.	1045.00

IRR-CAW-5-10

(a)

Providing and laying filter media consisting of 2 layers of poly-propylene nonwoven filter fabric and 200 mm thick 20 mm down graded coarse aggregate for embankment including cost of all materials, machinery, labour, forming toe drain etc., **complete with lead upto 50 m**
a. for aggregate and all leads for fabric and all lifts.
Using 200 gsm filter fabric.



DATA:

RATE ANALYSIS

UNIT :

100.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	PP filter fabric 200 gsm	sqm	210.00	101.00	21210.00
2	20 - 10 mm CA @ 75 %	cum	15.00	1182.00	17730.00
	10 mm down CA @ 25 %	cum	5.00	860.00	4300.00

Total Cost of materials	Rs:	43240.00
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B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	7.00	400.00	2800.00
Total cost of Labour				Rs:	3300.00

labour component/unit qty	33.00
Add contractor's profit and overhead charges	13.615% 4.50
labour component/unit qty (including contractor's profit)	37.50

ABSTRACT:

A. Cost of Materials	Rs:	43240.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	3300.00
Total	Rs:	46540.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	6336.42
Total cost for	100.00 sqm	Rs:	52876.42
Rate per sqm	(A+B+C+D)/100.0	Rs:	528.80

- IRR-CAW-5-11 **Providing and laying filter media consisting of 2 layers of poly-propylene nonwoven filter fabric and 200 mm thick 20 mm down graded coarse aggregate for embankment including cost of all materials, machinery, labour, forming toe drain etc., complete with lead upto 50 m for aggregate and all leads for fabric and all lifts.**
- (b)
- b. Using 250 gsm filter fabric.

Data

RATE ANALYSIS

UNIT :

100.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	PP filter fabric 250 gsm	sqm	210.00	116.00	24360.00
2	20 - 10 mm CA @ 75 %	cum	15.00	1182.00	17730.00
	10 mm down CA @ 25 %	cum	5.00	860.00	4300.00
Total cost of Materials				Rs:	46390.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	7.00	400.00	2800.00
Total cost of Labour				Rs:	3300.00

labour component/unit qty	33.00
Add contractor's profit and overhead charges	13.615% 4.50
labour component/unit qty (including contractor's profit)	37.50

ABSTRACT:

A. Cost of Materials	Rs:	46390.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	3300.00
Total	Rs:	49690.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	6765.29
Total cost for	100.00 sqm	Rs:	56455.29
Rate per sqm	(A+B+C+D)/100.0	Rs:	564.60

IRR-CAW-6 **ROCK FILL WORKS :**

- IRR-CAW-6-1 Providing and **constructing rockfill casing to canal embankment** with graded stones and spalls from **approved quarry** including cost of all materials, machinery, labour, spreading stones and spalls in layers, hand packing, wedging, finishing surface to required slopes etc., **complete with initial lead upto 50 m and all lifts.**

DATA

RATE ANALYSIS

UNIT :

100.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble stones (at quarry)	cum	100.00	303.00	30300.00
2	Stone chips / spalls (at quarry)		15.00	333.00	4995.00
Total cost of Materials				Rs:	35295.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Cl- II	Day	6.00	440.00	2640.00
2	mazdoor	Day	8.00	400.00	3200.00
Total cost of Labour				Rs:	5840.00

labour component/unit qty 58.40

Add contractor's profit and overhead charges 13.615% 8.00

labour component/unit qty (including contractor's profit) 66.40

ABSTRACT:

A. Cost of Materials Rs: 35295.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 5840.00

Total Rs: 41135.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 5600.53

Total cost for 100.00 cum Rs: 46735.53

Rate per cum (A+B+C+D)/100.0 Rs: 467.40

IRR-CAW-6-2

Providing and **constructing rockfill casing to canal embankment** with graded stones and spalls **available in dump yard (spoil bank)** including cost of all materials, machinery, labour, spreading stones and spalls in layers, hand packing, wedging, finishing surface to required slopes etc., **complete with initial lead upto 50 m and all lifts.**

Note: Stones and spalls available in dump yard shall be issued at specified issue rate.

DATA

RATE ANALYSIS

UNIT :

100.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble stones at dump yard	cum	100.00	148.00	14800.00
2	Stone chips (spalls) at dump yard		15.00	176.00	2640.00
Total cost of Materials				Rs:	17440.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Cl- II	Day	6.00	440.00	2640.00
2	Crowbarman	Day	2.00	440.00	880.00
3	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour				Rs:	7520.00

labour component/unit qty 75.20

Add contractor's profit and overhead charges 13.615% 10.20

labour component/unit qty (including contractor's profit) 85.40

ABSTRACT:

A. Cost of Materials Rs: 17440.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 7520.00

Total Rs: 24960.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 3398.3

Total cost for 100.00 cum Rs: 28358.30

Rate per cum (A+B+C+D)/100.0 Rs: 283.60

IRR-CAW-7 **CANAL LINING WORKS :**

IRR-CAW-7-1 **Providing cohesive non-swelling (CNS) soil lining to canals** using soil from **approved borrow area** including spreading soil in **layers of thickness not more than 15 cm**, breaking clods, watering, compacting to density control of **not less than 98 percent** or as stipulated, dressing to required profile etc., complete **with initial lead upto 1 km and all lifts**.

DATA: **RATE ANALYSIS** UNIT : **394.00 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
2	Angle dozer 90 hp	Hour	3.00	1395.70	4187.10
	Fuel / Energy charges	Hour	3.00	801.50	2404.50
3	Tipper 5 cum	Hour	24.00	363.50	8724.00
	Fuel / Energy charges	Hour	24.00	393.70	9448.80
4	Pump 5 hp (diesel)	Hour	4.00	8.30	33.20
	Fuel / Energy charges	Hour	4.00	104.20	416.80
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Diesel road roller 8-10 tonne	Hour	11.50	160.40	1844.60
	Fuel / Energy charges	Hour	11.50	937.40	10780.10
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	52532.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Dozer	Hour	3.00	257.40	772.20
3	Crew for Tipper	Hour	24.00	193.10	4634.40
4	Crew for Pump	Hour	4.00	122.30	489.20
5	Crew for Water tanker	Hour	4.00	193.10	772.40
6	Crew for Road roller	Hour	11.50	232.10	2669.15
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	38.00	400.00	15200.00
Total cost of Labour				Rs:	27596.55

labour component/unit qty 70.00
 Add contractor's profit and overhead charges 13.615% 9.50
 labour component/unit qty (including contractor's profit) **79.50**

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 52532.90
 C. Cost of Labour Rs: 27596.55
Total Rs: 80129.45

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 10909.62
 Total cost for 394.00 cum Rs: **91039.07**
Rate per cum (A+B+C+D)/394.0 Rs: 231.10

IRR-CAW-7-2 **Providing cohesive non-swelling (CNS) soil lining to canals** using soil from **approved borrow area** including spreading soil in layers of thickness **not more than 15 cm**, breaking clods, watering, compacting to density control of **not less than 95 percent** or as stipulated, dressing to required profile etc., complete **with initial lead upto 1 km and all lifts**.

DATA: **RATE ANALYSIS** UNIT : **394.00 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shovel 0.5 cum	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
2	Angle dozer 90 hp	Hour	3.00	1395.70	4187.10
	Fuel / Energy charges	Hour	3.00	801.50	2404.50

3	Tipplers 5 cum	Hour	24.00	363.50	8724.00
	Fuel / Energy charges	Hour	24.00	393.70	9448.80
4	Pump 5 hp (diesel)	Hour	4.00	8.30	33.20
	Fuel / Energy charges	Hour	4.00	104.20	416.80
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Diesel road roller 8-10 tonnes	Hour	10.00	160.40	1604.00
	Fuel / Energy charges	Hour	10.00	937.40	9374.00
7	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	50886.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Shovel	Hour	8.00	257.40	2059.20
2	Crew for Dozer	Hour	3.00	257.40	772.20
3	Crew for Tipper	Hour	24.00	193.10	4634.40
4	Crew for Pump	Hour	4.00	122.30	489.20
5	Crew for Water tanker	Hour	4.00	193.10	772.40
6	Crew for Road roller	Hour	10.00	232.10	2321.00
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	38.00	400.00	15200.00
Total cost of Labour				Rs:	27248.40

labour component/unit qty 69.20

Add contractor's profit and overhead charges 13.615% 9.40

labour component/unit qty (including contractor's profit) **78.60****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	50886.20
C. Cost of Labour	Rs:	27248.40
Total	Rs:	78134.60

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	10638.03
Total cost for	394.00 cum	Rs:	88772.63
Rate per cum	(A+B+C+D)/394.0	Rs:	225.30

IRR-CAW-7-3 **Providing cohesive non-swelling (CNS) soil lining to canal using soil collected in heaps**
 along the edge of canal requiring CNS soil lining as part of the disposal of excavated soil from
 canal excavation in CNS soil reach including spreading in **layers of thickness not more than**
15 cm, breaking clods, watering, compacting to density control of **not less than 95 percent**
 or as stipulated, dressing to required profile etc., complete with **lead upto upto 50 m and all**
lifts.

DATA: **RATE ANALYSIS** UNIT : **394.00 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle Dozer 90 hp	Hour	1.50	1395.70	2093.55
	Fuel / Energy charges	Hour	1.50	801.50	1202.25
2	Pump 5 hp (diesel)	Hour	5.00	8.30	41.50
	Fuel / Energy charges	Hour	5.00	104.20	521.00
3	Water tanker 8000 ltr	Hour	5.00	359.00	1795.00
	Fuel / Energy charges	Hour	5.00	393.70	1968.50
4	Diesel road roller 8-10 tonne	Hour	13.00	160.40	2085.20
	Fuel / Energy charges	Hour	13.00	937.40	12186.20
5	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	22048.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	1.50	257.40	386.10
2	Crew for Pump	Hour	5.00	122.30	611.50
3	Crew for Water tanker	Hour	5.00	193.10	965.50
4	Crew for Road roller	Hour	13.00	232.10	3017.30
5	work inspector	Day	2.00	500.00	1000.00
6	mazdoor	Day	38.00	400.00	15200.00
Total cost of Labour				Rs:	21180.40

labour component/unit qty	53.80
Add contractor's profit and overhead charges	13.615% 7.30
labour component/unit qty (including contractor's profit)	61.10

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	22048.20
C. Cost of Labour	Rs:	21180.40
Total	Rs:	43228.60

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	5885.57
Total cost for	394.00 cum	Rs:	49114.17
Rate per cum	(A+B+C+D)/394.0	Rs:	124.70

IRR-CAW-7-4 Providing and **fixing 20 x 20 x 75 cm size top surface neatly dressed canal bed level stones** including cost of all materials, labour, excavation, fixing in position to correct level etc., **complete with lead upto 50 m and all lifts.**

DATA

RATE ANALYSIS

UNIT :

32 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rough stone 20x20x75 cm	Each	32.00	22.00	704.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	704.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Stone chiseller CI- I	Day	2.00	490.00	980.00
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	2280.00

labour component/unit qty	71.30
Add contractor's profit and overhead charges	13.615% 9.70
labour component/unit qty (including contractor's profit)	81.00

ABSTRACT:

A. Cost of Materials	Rs:	704.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2280.00
Total	Rs:	2984.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	406.27
Total cost for	32.00 Nos.	Rs:	3390.27
Rate per each	(A+B+C+D)/32.0	Rs:	105.90

IRR-CAW-7-5 Providing, fabricating and **placing in position reinforcement steel bars for RCC works** including cleaning, straightening, cutting, bending, hooking, lapping, tying with 1.25 mm dia. soft annealed steel wire, welding wherever required including cost of all materials, machinery, labour etc., **complete with initial lead upto 50 and all lifts.**

DATA

RATE ANALYSIS

UNIT :

1000.00 kg**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rein.Steel with 5 % wastage	kg	1050.00	42.00	44100.00
2	Binding wire 1.25 mm dia	kg	8.00	53.00	424.00
3	Sundries (chairs / spacers etc)	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	44834.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Bar bender	Day	6.00	600.00	3600.00
2	mazdoor	Day	11.00	400.00	4400.00
Total cost of Labour				Rs:	8000.00

labour component/unit qty	8.00
Add contractor's profit and overhead charges	13.615% 1.10
labour component/unit qty (including contractor's profit)	<u>9.10</u>

ABSTRACT:

A. Cost of Materials	Rs:	44834.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	8000.00
Total	Rs:	52834.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	7193.35
Total cost for	1000.00 kg	Rs:	60027.35
Rate per kg	(A+B+C+D)/1000.0	Rs.	60.00

IRR-CAW-7-6 Providing and **laying 75 mm thick in-situ M-15** (28 days cube compressive strength not less than 15 N / sqmm) grade cement concrete with **20 mm down size** approved, clean, hard, graded aggregates **for canal lining using vibrating cylinder type mechanical paver** including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, finishing, forming contraction joints, fixing PVC joint sealing strips, curing, shifting of paver from one side to other side of canal etc., complete **with initial lead upto 1 km and all lifts.**
(43 Gr Cement content: 300 kg /cum (22.5 kg/ sqm) for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum equivalent concrete volume:79.2 cum including the extra quantity of concrete for curvatures and bends etc.,)

DATA:

RATE ANALYSIS			UNIT :		960 sqm	
A. MATERIALS:			Unit	Quantity	Rate	Amount
SI No	particulars				in Rs.	in Rs.
1	Cement 43 Gr	kg	23760.00		3.88	92236.32
2	Coarse aggregate 20-10 mm	cum	41.18		1182.00	48679.49
	Coarse aggregate 10-4.75 mm	cum	22.18		860.00	19071.36
3	Fine aggregate (Un-Screened)	cum	35.64		100.00	3564.00
4	Super plasticiser	kg	95.04		43.00	4086.72
5	PVC sealing strip	Rm	640.00		38.00	24320.00
6	Use rate of paving cylinder	sqm	960.00		0.88	840.90
7	Sundries	LS	5.00		31.00	155.00
	Total cost of Materials				Rs:	192953.79

B. MACHINERY:					
SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Batching plant	Hour	8.00	329.80	2638.40
	Lubricants etc @ 5 %	Hour	8.00	16.49	131.92
2	Transit mixer 3 Nos	Hour	24.00	617.10	14810.40
	Fuel / Energy charges	Hour	24.00	1145.70	27496.80
3	Mechanical paver	Hour	8.00	290.00	2320.00
	Lubricants etc @ 5 %	Hour	8.00	14.50	116.00
4	DG set for batching plant 50 KVA	Hour	8.00	69.20	553.60
	Fuel / Energy charges	Hour	8.00	1249.90	9999.20
5	DG set for paver 30 KVA	Hour	8.00	53.60	428.80
	Fuel / Energy charges	Hour	8.00	833.30	6666.40
6	Shovel 0.5 cum / Loader	Hour	2.00	816.10	1632.20
	Fuel / Energy charges	Hour	2.00	624.90	1249.80
7	Water tanker	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
8	Pump 5 hp(diesel) 2 Nos. 4 hrs each	Hour	8.00	8.30	66.40
	Fuel / Energy charges	Hour	8.00	104.20	833.60
9	Sundries (power line etc)	LS	5.00	31.00	155.00
	Total hire charges of Machinery			Rs:	75120.12

C. LABOUR:					
SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Transit mixer	Hour	24.00	308.90	7413.60
3	Crew for Concrete paver	Hour	8.00	464.30	3714.40
4	Crew for DG set	Hour	16.00	145.10	2321.60
5	Crew for Shovel	Hour	2.00	257.40	514.80
6	Crew for Water tanker	Hour	8.00	193.10	1544.80
7	Crew for Pump	Hour	16	122.30	1956.80
8	Mason Class I	Day	2	475.00	950.00
9	Mechanic	Day	1	510.00	510.00
10	Fitter	Day	1	510.00	510.00
11	Electrician	Day	1	555.00	555.00
12	work inspector	Day	2	500.00	1000.00
13	mazdoor (BP site)	Day	5	400.00	2000.00
14	mazdoor (Paver site)	Day	10	400.00	4000.00

Total cost of Labour		Rs:	29955.80
labour component/unit qty	31.20		
Add contractor's profit and overhead charges	13.615% 4.20		
labour component/unit qty (including contractor's profit)	35.40		
ABSTRACT:			
A. Cost of Materials		Rs:	192953.79
B. Hire charges of Machinery		Rs:	75120.12
C. Cost of Labour		Rs:	29955.8
		Total Rs:	298029.71
Add for shifting & re-erection of BP @	2%	Rs:	5960.5942
Add for LH / RH shifting & erection of Paver @	0.5%	Rs:	1490.1485
Add for ledge cutting / erection of tracks etc @	1%	Rs:	2980.2971
		Total Rs:	308460.75
D. Add for contractor's profit and overheads on (A+B+C+other	13.615%	Rs:	41996.93
Lead Charges for 1 Km for FA	35.64 cum @	32.4 Rs./Cum	1154.736
Lead Charges for 1 Km for CA	63.36 cum @	31.5 Rs./Cum	1995.84
Total cost for	960.00 sqm	Rs:	353608.25
Rate per sqm	(A+B+C+D)/960.0	Rs.	368.30

IRR-CAW-7-7 Providing and **laying 80 mm thick in-situ M-15** (28 days cube compressive strength not less than 15 N / sqmm) grade cement concrete with **20 mm down size** approved, clean, hard, graded aggregates **for canal lining using vibrating cylinder type mechanical paver** including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, finishing, forming contraction joints, fixing PVC joint sealing strips, curing, shifting of paver from one side to other side of canal etc., complete **with initial lead upto 1 km and all lifts.**
(43 Gr Cement content: 300 kg /cum (24 kg/ sqm) for
use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35,
FA : 0.45 cum equivalent concrete volume:84.48 cum including the extra quantity of
concrete for curvatures and bends etc.,)

DATA:

RATE ANALYSIS		UNIT :		960 sqm	
A. MATERIALS:					
SI No	particulars	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Cement 43 Gr	kg	25344.00	3.88	98385.41
2	Coarse aggregate 20-10 mm	cum	43.93	1182.00	51924.79
	Coarse aggregate 10-4.75 mm	cum	23.65	860.00	20342.78
3	Fine aggregate (Un-Screened)	cum	38.02	100.00	3801.60
4	Super plasticiser	kg	101.38	43.00	4359.17
5	PVC sealing strip	Rm	640.00	38.00	24320.00
6	Use rate of paving cylinder	sqm	960.00	0.88	840.90
7	Sundries	LS	5.00	31.00	155.00
	Total cost of Materials			Rs:	204129.65
B. MACHINERY:					
SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Batching plant	Hour	8.00	329.80	2638.40
	Lubricants etc @ 5 %	Hour	8.00	16.49	131.92
2	Transit mixer 3 Nos	Hour	24.00	617.10	14810.40
	Fuel / Energy charges	Hour	24.00	1145.70	27496.80
3	Mechanical paver	Hour	8.00	290.00	2320.00
	Lubricants etc @ 5 %	Hour	8.00	14.50	116.00
4	DG set for batching plant 50 KVA	Hour	8.00	69.20	553.60
	Fuel / Energy charges	Hour	8.00	1249.90	9999.20
5	DG set for paver 30 KVA	Hour	8.00	53.60	428.80
	Fuel / Energy charges	Hour	8.00	833.30	6666.40
6	Shovel 0.5 cum / Loader	Hour	2.00	816.10	1632.20
	Fuel / Energy charges	Hour	2.00	624.90	1249.80
7	Water tanker	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
8	Pump 5 hp(diesel) 2 Nos. 4 hrs each	Hour	8.00	8.30	66.40
	Fuel / Energy charges	Hour	8.00	104.20	833.60
9	Sundries (power line etc)	LS	5.00	31.00	155.00
	Total hire charges of Machinery			Rs:	75120.12
C. LABOUR:					
SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Transit mixer	Hour	24.00	308.90	7413.60
3	Crew for Concrete paver	Hour	8.00	464.30	3714.40
4	Crew for DG set	Hour	16.00	145.10	2321.60

5	Crew for Shovel	Hour	2.00	257.40	514.80
6	Crew for Water tanker	Hour	8.00	193.10	1544.80
7	Crew for Pump	Hour	16	122.30	1956.80
8	Mason Class I	Day	2	475.00	950.00
9	Mechanic	Day	1	510.00	510.00
10	Fitter	Day	1	510.00	510.00
11	Electrician	Day	1	555.00	555.00
12	work inspector	Day	2	500.00	1000.00
13	mazdoor (BP site)	Day	5	400.00	2000.00
14	mazdoor (Paver site)	Day	10	400.00	4000.00
Total cost of Labour				Rs:	29955.80

labour component/unit qty	31.20
Add contractor's profit and overhead charges	13.615% 4.20
labour component/unit qty (including contractor's profit)	35.40

ABSTRACT:

A. Cost of Materials	Rs:	204129.65
B. Hire charges of Machinery	Rs:	75120.12
C. Cost of Labour	Rs:	29955.8
	Total Rs:	309205.57
Add for shifting & re-erection of BP @	2%	Rs: 6184.1113
Add for LH / RH shifting & erection of Paver @	0.5%	Rs: 1546.0278
Add for ledge cutting / erection of tracks etc @	1%	Rs: 3092.0557
	Total Rs:	320027.76
D. Add for contractor's profit and overheads on (A+B+C+other	13.615%	Rs: 43571.78
Lead Charges for 1 Km for FA	38.02 cum @ 32.4 Rs./Cum	1231.7184
Lead Charges for 1 Km for CA	67.58 cum @ 31.5 Rs./Cum	2128.90
Total cost for	960.00 sqm	Rs: 366960.16
Rate per sqm	(A+B+C+D)/960.0	Rs. 382.30

IRR-CAW-7-8 Providing and **laying 100 mm thick in situ M-15** (28 days cube compressive strength not less than 15 N /Sqmm) grade cement concrete with **20 mm down size** approved, clean, hard, graded aggregates **for canal lining using, vibrating, cylinder type mechanical paver** including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, finishing, forming contraction joints, fixing PVC joint sealing strips, curing, shifting of paver from one side to other side of canal etc., complete **with initial lead upto 1 Km and all lifts.**
(43 Gr Cement content: 300 kg /cum (30 kg/ sqm) for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum equivalent concrete volume:88 cum including the extra quantity of concrete for curvatures and bends etc.,)

DATA:

RATE ANALYSIS		UNIT :		800 Sqm	
A. MATERIALS:					
Sl.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Cement 43 Gr	Kg	26400	3.88	102484.80
2	Coarse aggregate 20-10 mm	cum	45.76	1182.00	54088.32
	Coarse aggregate 10-4.75 mm	cum	24.64	860.00	21190.40
3	Fine aggregate (Un-Screened)	cum	39.6	100.00	3960.00
4	Super plasticiser	kg	105.6	43.00	4540.80
5	PVC sealing strip	Rm	533	38.00	20254.00
6	Use rate of paving cylinder	sqm	800	0.8759375	700.75
	Total cost of Materials			Rs.	207219.07

B. MACHINERY:

Sl.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Batching plant	Hour	8	329.80	2638.40
2	Transit mixer 3 Nos	Hour	24	617.10	14810.40
	Fuel / Energy charges	Hour	24	1145.70	27496.80
3	Mechanical paver	Hour	8	290.00	2320.00
	lubricants etc @ 5%	Hour	8	14.50	116.00
4	DG set for batching plant 50 KVA	Hour	8	69.20	553.60
	Fuel / Energy charges	Hour	8	1249.90	9999.20
5	DG set for paver 30 KVA	Hour	8	53.60	428.80
	Fuel / Energy charges	Hour	8	833.30	6666.40
6	Shovel 0.5 cum / Loader	Hour	2.00	816.10	1632.20
	Fuel / Energy charges	Hour	2.00	624.90	1249.80
7	Water tanker	Hour	8	359.00	2872.00
	Fuel / Energy charges	Hour	8	393.70	3149.60
8	Pump 5 hp (diesel) 2 Nos. 4 hrs each	Hour	8	8.30	66.40
	Fuel / Energy charges	Hour	8	104.20	833.60
Total hire charges of Machinery				Rs.	74833.2

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Transit mixer	Hour	24.00	308.90	7413.60
3	Crew for Concrete paver	Hour	8.00	464.30	3714.40
4	Crew for DG set	Hour	16.00	145.10	2321.60
5	Crew for Shovel	Hour	2.00	257.40	514.80
6	Crew for Water tanker	Hour	8	193.10	1544.80

7	Crew for Pump	Hour	8	122.30	978.40
8	Mason Class I	Day	2	475.00	950.00
9	Mechanic	Day	1	510.00	510.00
10	Fitter	Day	1	510.00	510.00
11	Electrician	Day	1	555.00	555.00
12	work inspector	Day	2	500.00	1000.00
13	mazdoor (BP site)	Day	5	400.00	2000.00
14	mazdoor (Paver site)	Day	10	400.00	4000.00

Total cost of Labour Rs: **28977.40**

labour component/unit qty 36.20
 Add contractor's profit and overhead charges 13.615% 4.90
 labour component/unit qty (including contractor's profit) **41.10**

ABSTRACT

A. Cost of Materials Rs. 207219.07
 B. Hire charges of Machinery Rs. 74833.2
 C. Cost of Labour Rs. 28977.40

TOTAL Rs. 311029.67

Add for shifting & re-erection of BP @ 2% Rs. 6220.5934

Add for LH / RH shifting & erection of Paver @ 0.5% Rs. 1555.1484

Add for ledge cutting / erection of tracks etc @ 1% Rs. 3110.2967

Total Rs: 321915.71

D. Add for contractor's profit and overheads on (A+B+C+other 13.615% Rs: 43828.82

Lead Charges for 1 Km for FA 39.60 cum @ 32.4 Rs./Cum 1283.04

Lead Charges for 1 Km for CA 70.40 cum @ 31.5 Rs./Cum 2217.60

Total cost for 800.00 Sqm Rs: **369245.17**

Rate per Sqm (A+B+C+D)/800.0 Rs. **461.60**

IRR-CAW-7-9

Dismantling, shifting and re-erecting mechanical concrete paver and DG set with all accessories across canal CD work or other locations wherever shifting and re-erecting is necessary including aligning paver correctly for continuing canal lining work, cost of all materials, machinery, labour etc., complete with all leads and lifts.

Note: Local shifting and re-erection of paver for LH and RH side lining included in concrete lining rates under items IRR-CAW-7-7 and IRR-CAW-7-8 and saperate rate for shifting shall not be allowed.

DATA:

RATE ANALYSIS

UNIT :

1.00 Shifting**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper	Hour	4.00	363.50	1454
	Fuel / Energy charges	Hour	1.00	393.70	393.7
2	Sundries (ropes / rails etc)	LS	1.00	31.00	31
Total hire charges of Machinery				Rs:	1878.70

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Tipper	Hour	4.00	193.10	772.4
2	Crew for Paver	Hour	8.00	464.30	3714.4
3	mazdoor	Day	6.00	400.00	2400
Total cost of Labour				Rs:	6886.80

labour component/unit qty 6886.80

Add contractor's profit and overhead charges 13.615% 937.60

labour component/unit qty (including contractor's profit) **7824.40**

ABSTRACT:

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 1878.70

C. Cost of Labour Rs: 6886.80

Total Rs: 8765.50

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 1193.42

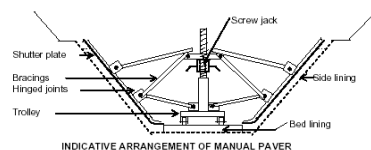
Total cost for 1.00 Shifting Rs: **9958.92**

Rate per Shifting (A+B+C+D)/1.0 Rs. **9958.90**

IRR-CAW-7-10

Providing and **laying insitu vibrated M-10** (28 days cube compressive strength not less than 10 N /sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **for bed and side lining of canal(150mm thick)** including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts. (Cement content : 250 kg / cum)**
(43 Gr Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),

CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)



DATA

RATE ANALYSIS

UNIT :

28.17 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	7042.5	3.88	27338.985
	Cement for incidentals @ 5 kg / cum	kg	140.85	3.88	546.7797
2	Coarse aggregate 40-20 mm	cum	12.68	1133.00	14362.475
	Coarse aggregate 20-10 mm	cum	7.61	1182.00	8990.1738
	Coarse aggregate 10 mm below	cum	5.07	860.00	4360.716
3	Fine aggregate (Un-Screened)	cum	11.27	100.00	1126.8
4	Super Plasticizer	kg	28.17	43.00	1211.31
6	Use rate of manual paver	sqm	180	27.32	4916.94
7	Sundries	LS	2	31.00	62
Total cost of Materials				Rs:	62916.18

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	16.00	75.40	1206.4
	Fuel / Energy charges	Hour	16.00	208.30	3332.8
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.1
3	Water tanker 8000 ltr	Hour	1.00	359.00	359
	Fuel / Energy charges	Hour	1.00	393.70	393.7
4	Needle vibrator 40 mm dia (petrol)	Hour	16.00	6.20	99.2
	Fuel / Energy charges	Hour	16.00	23.20	371.2
Total hire charges of Machinery				Rs:	5818.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	16.00	241.80	3868.8
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.1
4	Crew for Needle vibrator	Hour	16.00	174.10	2785.6
5	work inspector	Day	1.00	500.00	500
6	Mason Class-I	Day	2.00	475.00	950
7	Fitter	Day	1.00	510.00	510
8	mazdoor				
	for batching materials	Day	22.00	400.00	8800
	for loading mortar pans	Day	8.00	400.00	3200
	for laying and moving paver	Day	6.00	400.00	2400
	for conveying concrete	Day	28.17	400.00	11268
	for cleaning/ washing/ curing	Day	2.00	400.00	800
Total cost of Labour				Rs:	35336.65

labour component/unit qty	1254.40
Add contractor's profit and overhead charges	13.615% 170.80
labour component/unit qty (including contractor's profit)	1425.20

ABSTRACT:

A. Cost of Materials	Rs:	62916.18
B. Hire charges of Machinery	Rs:	5818.55
C. Cost of Labour	Rs:	35336.65
Total	Rs:	104071.38

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	14169.32
Total cost for	28.17 cum	Rs:	118240.70
Rate per cum	(A+B+C+D)/28.17	Rs:	4197.40

10 N/sqm) grade cement concrete using **40 mm down size** approved, clean, hard, graded

aggregate **for bed and side lining of canal(100 mm thick)** including, finishing the junction of bed and sides

to required curvature, cost of all materials, machinery, labour, formwork including supports

cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,

complete **with initial lead up to 50 m and all lifts (Cement content: 250 kg/cum)**

(43 Gr Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),

CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA

RATE ANALYSIS

UNIT:

27 cum**A. MATERIALS:**

Sl.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Cement for mix	kg	6750	3.88	26203.50
	Cement for incidentals @ 5 Kg / cum	kg	135	3.88	524.07
2	Coarse aggregate 40mm	cum	12.15	1133.00	13765.95
	Coarse aggregate 20 mm .	cum	7.29	1182.00	8616.78
	Coarse aggregate 10 mm .	cum	4.86	860.00	4179.60
3	Fine aggregate (Un-Screened)	cum	10.8	100.00	1080.00
4	Super Plasticizer	kg	27	43.00	1161.00
5	Use rate of manual paver	sqm	270	27.32	7375.41
Total Rs.					62906.31
Total cost of Materials				Rs.	62906.31

B. MACHINERY:

Sl.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Concrete mixer 600/400 ltr (diesel)	Hour	16.00	75.40	1206.40
	Fuel / Energy charges	Hour	16.00	208.30	3332.80
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm die (petrol)	Hour	4.00	6.20	24.80
	Fuel / Energy charges	Hour	4.00	23.20	92.80
Total hire charges of Machinery				Rs.	5465.75

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	16.00	241.80	3868.8
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.1
4	Crew for Needle vibrator	Hour	16.00	174.10	2785.6
5	work inspector	Day	1.00	500.00	500
6	Mason Class-I	Day	2.00	475.00	950
7	Fitter	Day	1.00	510.00	510
8	mazdoor				
	for batching materials	Day	22.00	400.00	8800
	for loading mortar pans	Day	8.00	400.00	3200
	for laying and moving paver	Day	6.00	400.00	2400
	for conveying concrete	Day	27.00	400.00	10800
	for cleaning/ washing/ curing	Day	2.00	400.00	800
Total cost of Labour				Rs.	34868.65

labour component/unit qty 1291.40

Add contractor's profit and overhead charges 13.615% 175.80

labour component/unit qty (including contractor's profit) **1467.20**

ABSTRACT:

A. Cost of Materials including royalty charges	Rs.	62906.31
B. Hire charges of Machinery	Rs.	5465.75
C. Cost of Labour	Rs.	34868.65
Total Rs.		103240.71

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	14056.22
Total cost for	27.00 cum	Rs:	117296.93
Rate per cum	(A+B+C+D)/27.0	Rs.	4344.30

IRR-CAW-7-12 Providing and **laying100mm thick insitu vibrated M-10** (28 days cube compressive strength-not less than

10.00 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded

aggregates **for bed and side lining of canal lining using vibrating cylindertype mechanical paver**

including cost of all materials mechnery labour batching mixing placing in position forming

contraction joints fixing pvc joint sealing strips shifting of paver from one side of canal to other

side etc.complete with 1 km lead & all lifts.

(Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),

CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA: RATE ANALYSIS UNIT : 800 Sqm

A. MATERIALS:

Sl.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Cement 43 Gr	Kg	22000.00	3.88	85404
2	Coarse aggregate 40 mm	cum	39.60	1133.00	44866.8
	Coarse aggregate 20 mm	cum	23.76	1182.00	28084.32
	Coarse aggregate 10 mm	cum	15.84	860.00	13622.4
3	Fine aggregate (Un-Screened)	cum	35.20	100.00	3520
4	Super plasticiser	kg	88.00	43.00	3784
5	PVC sealing strip	Rm	533.00	38.00	20254
6	Use rate of paving cylinder	sqm	800.00	0.876	700.75
	Total cost of Materials			Rs.	200236.27

B. MACHINERY:

Sl.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Batching plant	Hour	8.00	329.80	2638.4
2	Transit mixer 3 Nos	Hour	24.00	617.10	14810.4
	Fuel / Energy charges	Hour	24.00	1145.70	27496.8
3	Mechanical paver	Hour	5.00	290.00	1450
	lubricants etc @ 5%	Hour	5.00	14.50	72.5
4	DG set for batching plant 50 KVA	Hour	8.00	69.20	553.6
	Fuel / Energy charges	Hour	8.00	1249.90	9999.2
5	DG set for paver 30 KVA	Hour	8.00	53.60	428.8
	Fuel / Energy charges	Hour	8.00	833.30	6666.4
6	Shovel 0.5 cum / Loader	Hour	2.00	816.10	1632.20
	Fuel / Energy charges	Hour	2.00	624.90	1249.80
7	Water tanker	Hour	8.00	359.00	2872
	Fuel / Energy charges	Hour	8.00	393.70	3149.6
8	Pump 5 hp (diesel) 2 Nos. 4 hrs each	Hour	8.00	8.30	66.4
	Fuel / Energy charges	Hour	8.00	104.20	833.6
	Total hire charges of Machinery			Rs.	73919.70

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Transit mixer	Hour	24.00	308.90	7413.60
3	Crew for Concrete paver	Hour	8.00	464.30	3714.40
4	Crew for DG set	Hour	16.00	145.10	2321.60
5	Crew for Shovel	Hour	2.00	257.40	514.80
6	Crew for Water tanker	Hour	8	193.10	1544.80
7	Crew for Pump	Hour	8	122.30	978.40
8	Mason Class I	Day	2	475.00	950.00
9	Mechanic	Day	1	510.00	510.00
10	Fitter	Day	1	510.00	510.00
11	Electrician	Day	1	555.00	555.00
12	work inspector	Day	2	500.00	1000.00
13	mazdoor (BP site)	Day	5	400.00	2000.00
14	mazdoor (Paver site)	Day	10	400.00	4000.00
	Total cost of Labour			Rs:	28977.40

labour component/unit qty	36.20
Add contractor's profit and overhead charges 13.615%	4.90
labour component/unit qty (including contractor's profit)	41.10

ABSTRACT:

A. Cost of Materials	Rs.	200236.27
B. Hire charges of Machinery	Rs.	73919.70
C. Cost of Labour	Rs.	28977.40
	TOTAL Rs.	303133.37
Add for shifting & re-erection of BP @	2% Rs.	6062.67
Add for LH / RH shifting & erection of Paver @	0.5% Rs.	1515.67
Add for ledge cutting / erection of tracks etc @	1% Rs.	3031.33
	Total Rs:	313743.04
D. Add for contractor's profit and overheads on (A+B+C+other	13.615%	Rs: 42716.11
Lead Charges for 1 Km for FA	35.20 cum @ 32.4 Rs./Cum	1140.48
Lead Charges for 1 Km for CA	79.20 cum @ 31.5 Rs./Cum	2494.80
Total cost for	800.00 Sqm	Rs: 360094.43
Rate per Sqm	(A+B+C+D)/800.0	Rs. 450.10

IRR-CAW-7-13 Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N /sq mm) grade cement concrete using 20 mm down size approved, clean, hard, graded aggregates for bed and side lining of canal including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports,

cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,
complete with initial lead upto 50 m and all lifts. (Cement content : 250 kg / cum)
(Cement content: 250 kg / cum for use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA

RATE ANALYSIS

UNIT :

27.00 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	6750	3.88	26203.5
	Cement for incidentals @ 5 kg / cum	kg	135	3.88	524.07
2	Coarse aggregate 20-10 mm	cum	14.04	1182.00	16595.28
	Coarse aggregate 10 mm below	cum	7.56	860.00	6501.6
3	Fine aggregate (Un-Screened)	cum	12.15	100.00	1215
4	Super Plasticizer	kg	27	43.00	1161
5	Use rate of manual paver	sqm	270	27.32	7375.41
6	Sundries	LS	2	31.00	62
Total cost of Materials				Rs:	59637.86

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	16.00	75.40	1206.4
	Fuel / Energy charges	Hour	16.00	208.30	3332.8
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.1
3	Water tanker 8000 ltr	Hour	1.00	359.00	359
	Fuel / Energy charges	Hour	1.00	393.70	393.7
4	Needle vibrator 40 mm dia (petrol)	Hour	16.00	6.20	99.2
	Fuel / Energy charges	Hour	16.00	23.20	371.2
Total hire charges of Machinery				Rs:	5818.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	16.00	241.80	3868.8
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.1
4	Crew for Vibrator	Hour	16.00	174.10	2785.60
5	Mason Class-I	Day	2.00	475.00	950
6	work inspector	Day	1.00	500.00	500
7	Fitter	Day	1.00	510.00	510
8	mazdoor				
	for batching materials	Day	22.00	400.00	8800
	for loading mortar pans	Day	8.00	400.00	3200
	for laying and moving paver	Day	6.00	400.00	2400
	for conveying concrete	Day	27.00	400.00	10800
	for cleaning/ washing/ curing	Day	2.00	400.00	800
Total cost of Labour				Rs:	34868.65

labour component/unit qty 1291.40

Add contractor's profit and overhead charges 13.615% 175.80

labour component/unit qty (including contractor's profit) 1467.20

ABSTRACT:

A. Cost of Materials	Rs:	59637.86
B. Hire charges of Machinery	Rs:	5818.55
C. Cost of Labour	Rs:	34868.65
Total	Rs:	<u>100325.06</u>

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 27.00 cum Rs: 113984.32

Rate per cum (A+B+C+D)/27.0 Rs. 4221.60

IRR-CAW-7-14 Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N /sq mm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for bed and side lining of canal(150 mm thick) including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 290 kg / cum for use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA

RATE ANALYSIS

UNIT :

24.92 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	7226.8	3.88	28054.44
	Cement for incidentals @ 5 kg / cum	kg	124.6	3.88	483.6972
2	Coarse aggregate 40-20 mm	cum	11.21	1133.00	12705.462
	Coarse aggregate 20-10 mm	cum	6.73	1182.00	7952.9688
	Coarse aggregate 10 mm below	cum	4.49	860.00	3857.62
3	Fine aggregate (Un-Screened)	cum	9.97	100.00	996.8
4	Super Plasticizer	kg	28.91	43.00	1243.01
5	Use rate of manual paver	sqm	166.14	27.32	4538.33
6	Sundries	LS	2	31.00	62.00
Total cost of Materials				Rs:	59894.32

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	16.00	75.40	1206.40
	Fuel / Energy charges	Hour	16.00	208.30	3332.80
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	16.00	6.20	99.20
	Fuel / Energy charges	Hour	16.00	23.20	371.20
Total hire charges of Machinery				Rs:	5818.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	16.00	241.80	3868.8
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.1
4	Crew for Vibrator	Hour	16.00	174.10	2785.60
5	Mason Class-I	Day	2.00	475.00	950
6	work inspector	Day	1.00	500.00	500
7	Fitter	Day	1.00	510.00	510
8	mazdoor				
	for batching materials	Day	22.00	400.00	8800
	for loading mortar pans	Day	8.00	400.00	3200
	for laying	Day	6.00	400.00	2400
	for conveying concrete	Day	24.92	400.00	9968
	for cleaning/ washing/ curing	Day	2.00	400.00	800
Total cost of Labour				Rs:	34036.65

labour component/unit qty 1365.80
 Add contractor's profit and overhead charges 13.615% 186.00
 labour component/unit qty (including contractor's profit) **1551.80**

ABSTRACT:

A. Cost of Materials Rs: 59894.32
 B. Hire charges of Machinery Rs: 5818.55
 C. Cost of Labour Rs: 34036.65
Total Rs: 99749.52

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 13580.9
 Total cost for 24.92 cum Rs: **113330.42**
Rate per cum (A+B+C+D)/24.92 Rs. 4547.80

IRR-CAW-7-15 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N /sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for bed and side lining of canal(100 mm thick)** including finishing the junction of bed and sides to required curvature, cost of all materials, machinery, labour, formwork including supports, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content: 300 kg / cum for use of super plasticiser(0.4% by wt. of cement),
CA : 0.80 cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA

RATE ANALYSIS

UNIT :

23.10 cum**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	6930	3.88	26902.26
	Cement for incidentals @ 5 kg / cum	kg	115.5	3.88	448.371
2	Coarse aggregate 20-10 mm	cum	12.01	1182.00	14198.184

3	Coarse aggregate 10 mm below	cum	6.47	860.00	5562.48
4	Fine aggregate (Un-Screened)	cum	10.40	100.00	1039.5
6	Super Plasticizer	kg	27.72	43.00	1191.96
6	Use rate of manual paver	sqm	231	27.32	6310.07
7	Sundries	LS	2	31.00	62
Total cost of Materials				Rs:	55714.82

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	16.00	75.40	1206.4
	Fuel / Energy charges	Hour	16.00	208.30	3332.8
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.1
3	Water tanker 8000 ltr	Hour	1.00	359.00	359
	Fuel / Energy charges	Hour	1.00	393.70	393.7
4	Needle vibrator 40 mm dia (petrol)	Hour	16.00	6.20	99.2
	Fuel / Energy charges	Hour	16.00	23.20	371.2
Total hire charges of Machinery				Rs:	5818.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	16.00	241.80	3868.8
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.1
4	Crew for Vibrator	Hour	16.00	174.10	2785.6
5	Mason Class-I	Day	2.00	475.00	950
6	work inspector	Day	1.00	500.00	500
7	Fitter	Day	1.00	510.00	510
8	mazdoor				
	for batching materials	Day	22.00	400.00	8800
	for loading mortar pans	Day	8.00	400.00	3200
	for laying and moving paver	Day	6.00	400.00	2400
	for conveying concrete	Day	23.10	400.00	9240
	for cleaning/ washing/ curing	Day	2.00	400.00	800
Total cost of Labour				Rs:	33308.65

labour component/unit qty 1441.90

Add contractor's profit and overhead charges 13.615% 196.30

labour component/unit qty (including contractor's profit) **1638.20****ABSTRACT:**

A. Cost of Materials	Rs:	55714.82
B. Hire charges of Machinery	Rs:	5818.55
C. Cost of Labour	Rs:	33308.65

Total Rs: **94842.02**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 12912.74

Total cost for 23.10 cum Rs: **107754.76****Rate per cum** (A+B+C+D)/23.10 Rs: **4664.70**

IRR-CAW-7-16 Providing and **laying 150mm thick insitu vibrated M-15** (28 days cube compressive strength-not less than 15.00 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for bed and side lining of canal lining using vibrating cylindertype mechanical paver** including cost of all materials machinery labour batching mixing placing in position forming contraction joints fixing pvc joint sealing strips shifting of paver from one side of canal to other side etc.complete **with 1km lead & all lifts.**
(43 Gr Cement content: 300 kg /cum (45 kg/ sqm) for use of super plasticiser(0.4% by wt. of cement),CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.44 cum equivalent concrete volume:132 cum including the extra quantity of concrete for curvatures and bends etc.,)

DATA: **RATE ANALYSIS** UNIT : **800 Sqm****A. MATERIALS:**

SI.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Cement 43 Gr	Kg	39600.00	3.88	153727.2
2	Coarse aggregate 20 mm	cum	68.64	1182.00	81132.48
	Coarse aggregate 10 mm	cum	36.96	860.00	31785.6
3	Fine aggregate (Un-Screened)	cum	58.08	100.00	5808
4	Super plasticiser	kg	158.40	43.00	6811.2
5	PVC sealing strip	Rm	533.00	38.00	20254
6	Use rate of paving cylinder	sqm	800.00	0.876	700.75
Total cost of Materials				Rs.	300219.23

B. MACHINERY:

SI.No	Particulars	Unit	Qty	Rate in Rs.	Amount
1	Batching plant	Hour	8.00	329.80	2638.4

2	Transit mixer 3 Nos	Hour	24.00	617.10	14810.4
	Fuel / Energy charges	Hour	24.00	1145.70	27496.8
3	Mechanical paver	Hour	5.00	290.00	1450
	lubricants etc @ 5%	Hour	5.00	14.50	72.5
4	DG set for batching plant 50 KVA	Hour	8.00	69.20	553.6
	Fuel / Energy charges	Hour	8.00	1249.90	9999.2
5	DG set for paver 30 KVA	Hour	8.00	53.60	428.8
	Fuel / Energy charges	Hour	8.00	833.30	6666.4
6	Shovel 0.5 cum / Loader	Hour	2.00	816.10	1632.20
	Fuel / Energy charges	Hour	2.00	624.90	1249.80
7	Water tanker	Hour	8.00	359.00	2872
	Fuel / Energy charges	Hour	8.00	393.70	3149.6
8	Pump 5 hp (diesel) 2 Nos. 4 hrs each	Hour	8.00	8.30	66.4
	Fuel / Energy charges	Hour	8.00	104.20	833.6
Total hire charges of Machinery			Rs.	73919.70	

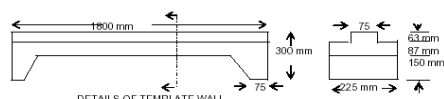
C. LABOUR:					
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Batching plant	Hour	8.00	370.60	2964.80
2	Crew for Transit mixer	Hour	24.00	308.90	7413.60
3	Crew for Concrete paver	Hour	8.00	464.30	3714.40
4	Crew for DG set	Hour	16.00	145.10	2321.60
5	Crew for Shovel	Hour	2.00	257.40	514.80
6	Crew for Water tanker	Hour	8	193.10	1544.80
7	Crew for Pump	Hour	8	122.30	978.40
8	Mason Class I	Day	2	475.00	950.00
9	Mechanic	Day	1	510.00	510.00
10	Fitter	Day	1	510.00	510.00
11	Electrician	Day	1	555.00	555.00
12	work inspector	Day	2	500.00	1000.00
13	mazdoor (BP site)	Day	5	400.00	2000.00
14	mazdoor (Paver site)	Day	10	400.00	4000.00
Total cost of Labour			Rs:	28977.40	

labour component/unit qty	36.20
Add contractor's profit and overhead charges 13.615%	4.90
labour component/unit qty (including contractor's profit)	41.10

ABSTRACT

A. Cost of Materials	Rs.	300219.23
B. Hire charges of Machinery	Rs.	73919.70
C. Cost of Labour	Rs.	28977.40
	TOTAL Rs.	403116.33
Add for shifting & re-erection of BP @	2% Rs.	8062.33
Add for LH / RH shifting & erection of Paver @	0.5% Rs.	2015.58
Add for ledge cutting / erection of tracks etc @	1% Rs.	4031.16
	Total	Rs: 417225.40
D. Add for contractor's profit and overheads on (A+B+C+other	13.615%	Rs: 56805.24
Lead Charges for 1 Km for FA	58.08 cum @ 32.4 Rs./Cum	1881.792
Lead Charges for 1 Km for CA	105.60 cum @ 31.5 Rs./Cum	3326.40
Total cost for	800.00 Sqm	Rs: 479238.83
Rate per Sqm	(A+B+C+D)/800.0	Rs. 599.00

IRR-CAW-7-17 Providing and fixing pre-cast RCC template walls consisting of 0.05 cum M-15 grade concrete using 20 mm down size coarse aggregates and 10 kg reinforcement steel moulded as per specifications and drawing in CM 1:4 proportion including cost of all materials, machinery, labour, formwork, fabricating and placing reinforcement steel, mixing, laying, conveying and fixing in position including necessary excavation for seating, finishing joints in CM 1:4, curing etc., complete with initial lead upto 1 km and all lifts.



DATA

RATE ANALYSIS

UNIT :

20.00 template

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	310.00	3.88	1203.42
2	Sand (Un-Screened)	cum	0.50	100.00	50
3	Coarse aggregate 20-10 mm	cum	0.50	1182.00	591
	Coarse aggregate 10-4.75 mm	cum	0.30	860.00	258
4	Reinforcement steel	kg	200.00	42.00	8400
5	Binding wire	kg	3.00	53.00	159
6	Use rate of mould	set	20.00	61.17	1223.3556

7	Sundries(water charges & misc.)	LS	1.00	31.00	31
Total cost of Materials				Rs:	11915.78

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand mixer	Hour	8.00	4.50	36
			8.00	0.00	0
Total hire charges of Machinery				Rs:	36.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500
2	Mason Class I for fixing	Day	1.00	475.00	475
3	Mason Class II for casting	Day	2.00	440.00	880
4	Bar bender	Day	1.00	600.00	600
5	mazdoor (casting yard)	Day	4.00	400.00	1600
	mazdoor (for fixing)	Day	2.00	400.00	800
	mazdoor for conveying	Day	2.00	400.00	800
Total cost of Labour				Rs:	5655.00

labour component/unit qty 282.80

Add contractor's profit and overhead charges 13.615% 38.50

labour component/unit qty (including contractor's profit) **321.30****ABSTRACT:**

A. Cost of Materials including serignorage charges Rs: 11915.78

B. Hire charges of Machinery Rs: 36.00

C. Cost of Labour Rs: 5655.00

Total Rs: 17606.78

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2397.16

Lead Charges for 1 Km for FA 0.50 cum @ 32.4 Rs./Cum 16.2

Lead Charges for 1 Km for CA 0.80 cum @ 31.5 Rs./Cum 25.20

Lead Charges for 1Km for Steel (including Loading and Unloading Charges) 0.20 tonne @ 190.3 Rs./Tonne 38.06

Total cost for 20.00 templete Rs: **20083.40****Rate per templete (A+B+C+D)/20.0 Rs. 1004.20**

IRR-CAW-7-18 Providing and fixing 50 mm dia perforated GI pressure relief pipes 12.50 cm long with one end closed with perforated GI plate and other end provided with alluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., **complete with all leads and lifts.**

DATA

RATE ANALYSIS

UNIT :

10 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	GI pipe 50 mm dia 10 Nos	Rm	1.25	250.00	312.5
2	GI plate & Alluminium lid (hinged)	LS	10.00	31.00	310
Total cost of Materials				Rs:	622.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling 8 mm dia holes	LS	0.50	31.00	15.5
			0.00		
Total hire charges of Machinery				Rs:	15.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Pipe fitter	Day	0.50	550.00	275
	mazdoor	Day	0.50	400.00	200
Total cost of Labour				Rs:	475.00

labour component/unit qty 47.50

Add contractor's profit and overhead charges 13.615% 6.50

labour component/unit qty (including contractor's profit) **54.00****ABSTRACT:**

A. Cost of Materials Rs: 622.50

B. Hire charges of Machinery Rs: 15.50

C. Cost of Labour Rs: 475.00

Total Rs: 1113.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 151.53

Total cost for 10.00 Nos. Rs: **1264.53****Rate per each (A+B+C+D)/10.0 Rs. 126.50**

IRR-CAW-7-19 Providing and fixing 50 mm dia perforated GI pressure relief pipes 22.50 cm long with

one end closed with perforated GI plate and other end provided with alluminium lid hinged
to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all
leads and lifts.

DATA

RATE ANALYSIS

UNIT :

10 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	GI pipe 50 mm dia 10 Nos	Rm	2.25	250.00	562.5
2	GI plate & Alluminium lid (hinged)	LS	10.00	31.00	310
Total cost of Materials				Rs:	872.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling 8 mm dia holes	LS	5.00	31.00	155
			0.00		
Total hire charges of Machinery				Rs:	155.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Pipe fitter	Day	0.50	550.00	275
	mazdoor	Day	0.50	400.00	200
Total cost of Labour				Rs:	475.00

labour component/unit qty 47.50
Add contractor's profit and overhead charges 13.615% 6.50
labour component/unit qty (including contractor's profit) 54.00

ABSTRACT:

A. Cost of Materials	Rs:	872.50
B. Hire charges of Machinery	Rs:	155.00
C. Cost of Labour	Rs:	475.00
Total	Rs:	1502.50

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 204.57
Total cost for 10.00 Nos. Rs: 1707.07
Rate per No. (A+B+C+D)/10.0 Rs: 170.70

IRR-CAW-7-20 Providing and fixing 50 mm dia perforated GI pressure relief pipes 30 cm long with

one end closed with perforated GI plate and other end provided with alluminium lid hinged
to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all
leads and lifts.

DATA

RATE ANALYSIS

UNIT :

10 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	GI pipe 50 mm dia 10 Nos	Rm	3.00	250.00	750.00
2	GI plate & Alluminium lid (hinged)	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	1060.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling 8 mm dia holes	LS	7.00	31.00	217.00
			0.00		
Total hire charges of Machinery				Rs:	217.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Pipe fitter	Day	0.50	550.00	275.00
	mazdoor	Day	0.50	400.00	200.00
Total cost of Labour				Rs:	475.00

labour component/unit qty 47.50
Add contractor's profit and overhead charges 13.615% 6.50
labour component/unit qty (including contractor's profit) 54.00

ABSTRACT:

A. Cost of Materials		Rs:	1060.00
B. Hire charges of Machinery		Rs:	217.00
C. Cost of Labour		Rs:	475.00
	Total	Rs:	1752.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	238.53
Total cost for	10.00 Nos.	Rs:	1990.53
Rate per No.	(A+B+C+D)/10.0	Rs.	199.10

IRR-CAW-7-21 Providing and **fixing 50 mm dia perforated GI pressure relief pipes 45 cm long** with one end closed with perforated GI plate and other end provided with aluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all **leads and lifts.**

DATA

RATE ANALYSIS

UNIT :

10 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	GI pipe 50 mm dia 10 Nos	Rm	4.50	250.00	1125.00
2	GI plate & Aluminium lid (hinged)	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	1435.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling 8 mm dia holes	LS	10.00	31.00	310.00
			0.00		
Total hire charges of Machinery				Rs:	310.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Pipe fitter	Day	0.50	550.00	275.00
	mazdoor	Day	0.50	400.00	200.00
Total cost of Labour				Rs:	475.00

labour component/unit qty 47.50
 Add contractor's profit and overhead charges 13.615% 6.50
 labour component/unit qty (including contractor's profit) **54.00**

ABSTRACT:

A. Cost of Materials	Rs:	1435.00
B. Hire charges of Machinery	Rs:	310.00
C. Cost of Labour	Rs:	<u>475.00</u>
Total	Rs:	2220.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 302.25
 Total cost for 10.00 Nos. Rs: **2522.25**
Rate per No. (A+B+C+D)/10.0 Rs. **252.20**

IRR-CAW-7-22 Providing and **fixing 50 mm dia perforated GI pressure relief pipes 75 cm long** with one end closed with perforated GI plate and other end provided with aluminium lid hinged to pipe including cost of all materials, labour, drilling 8 mm dia holes etc., complete with all **leads and lifts.**

DATA: Consider 10 Nos perforated 50 mm dia GI pipes 75 cm long each.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	GI pipe 50 mm dia	Rm	7.50	250.00	1875.00
2	GI plate & Aluminium lid (hinged)	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	2185.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Drilling 8 mm dia holes	LS	15.00	31.00	465.00
			0.00		
Total hire charges of Machinery				Rs:	465.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Pipe fitter	Day	0.50	550.00	275.00
2	mazdoor	Day	0.50	400.00	200.00
Total cost of Labour				Rs:	475.00

labour component/unit qty	47.50
Add contractor's profit and overhead charges	13.615% 6.50
labour component/unit qty (including contractor's profit)	<u>54.00</u>

ABSTRACT:

A. Cost of Materials	Rs:	2185.00
B. Hire charges of Machinery	Rs:	465.00
C. Cost of Labour	Rs:	475.00
Total	Rs:	3125.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	425.47
Total cost for	10.00 Nos.	Rs:	3550.47
Rate per No.	(A+B+C+D)/10.0	Rs.	355.00

IRR-CAW-7-23 Providing and **fixing 100 mm dia perforated PVC pipes 40 cm long for Weep holes** including cost of all materials, labour, drilling 8 mm dia holes etc. complete with all **leads and lifts.**

DATA

RATE ANALYSIS

UNIT:

10 Nos.**A. MATERIALS:**

Sl.No	Particulars	Unit	Qty	Rate in Rs	Amount in Rs.
1	PVC pipe 100 mm dia 10 Nos	Rm	10.00	144.00	1440.00
Total cost of Materials				Rs.	1440.00

B. MACHINERY:

Sl.No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl.No	Particulars	Unit	Qty	Rate in Rs	Amount in Rs.
1	Pipe fitter	Day	0.25	550.00	137.50
2	Mazdoor	Day	0.25	400.00	100.00
Total cost of Labour				Rs.	237.50

labour component/unit qty	23.80
Add contractor's profit and overhead charges	13.615% 3.20
labour component/unit qty (including contractor's profit)	<u>27.00</u>

ABSTRACT

A. Cost of Materials	Rs.	1440.00
B. Hire charges of Machinery	Rs.	0.00
C. Cost of Labour	Rs.	237.50
Total	Rs:	1677.50

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	228.39
Total cost for	10.00 Nos.	Rs:	1905.89
Rate per No.	(A+B+C+D)/10.0	Rs.	190.60

IRR-CAW-7-24 **Drilling 32 mm dia pressure relief hole below pressure relief pipe** for bed and side lining of canal laid on rock including cost of all materials, machinery, labour etc., complete with all **leads and lifts.**

DATA:

RATE ANALYSIS

UNIT :

10 Nos.**A. MATERIALS:**

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod 1.6 m long	Rm	10.00	23.80	238.00
	Reconditioning charges @ 10%				23.80
2	Use rate of air hose 2 Nos.	Hour	2.00	10.25	20.50
Total cost of Materials				Rs:	282.30

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 8.5 cmm diesel	Hour	1.00	224.20	224.20
	Fuel / Energy charges	Hour	1.00	1171.80	1171.80
2	Jack hammer 2 Nos.	Hour	2.00	16.10	32.20
	Fuel / Energy charges	Hour	2.00	0.00	0.00
Total hire charges of Machinery				Rs:	1428.20

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
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1	Crew for Air compressor	Hour	1.00	232.10	232.10
2	Crew for Jack hammer	Hour	2.00	362.70	725.40
Total cost of Labour				Rs:	957.50

labour component/unit qty	95.80
Add contractor's profit and overhead charges	13.615% 13.00
labour component/unit qty (including contractor's profit)	108.80

ABSTRACT:

A. Cost of Materials	Rs:	282.30
B. Hire charges of Machinery	Rs:	1428.20
C. Cost of Labour	Rs:	957.50
Total	Rs:	2668.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	363.25
Total cost for	10.00 Nos.	Rs:	3031.25
Rate per No.	(A+B+C+D)/10.0	Rs:	303.10

IRR-CAW-7-25 Providing and **forming 35 x 35 x 40 cm deep filter drain** consisting of 75 mm thick 10 mm down coarse aggregate around pressure relief pipe and 75 mm thick sand around coarse aggregate filter including cost of all materials, labour, excavation of pit etc., complete with **lead upto 50 m and all lifts.**

DATA

RATE ANALYSIS

UNIT :

10 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Coarse aggregate 10-4.75 mm	cum	0.15	860.00	129.00
2	Sand (Un-Screened)	cum	0.35	100.00	35.00
Total cost of Materials				Rs:	164.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Cl- II	Day	0.10	440.00	44.00
2	mazdoor	Day	0.10	400.00	40.00
Total cost of Labour				Rs:	84.00

labour component/unit qty	8.40
Add contractor's profit and overhead charges	13.615% 1.10
labour component/unit qty (including contractor's profit)	9.50

ABSTRACT:

A. Cost of Materials	Rs:	164.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	84.00
Total	Rs:	248.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	33.77
Total cost for	10.00 Nos.	Rs:	281.77
Rate per No.	(A+B+C+D)/10.0	Rs:	28.20

IRR-CAW-7-26 Providing and **fixing 25 to 40 mm thick Shahabad / Talikota / other similar stone slabs with pointing and finishing joints** neatly in **CM 1:3** proportion for canal / field channel lining including cutting slabs to required size, mixing mortar, finishing joints neatly, curing etc., **complete with lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

100.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Shahabad Stone slabs	sqm	105.00	224.00	23520.00
2	Cement 43 Gr	kg	200.00	3.88	776.40
3	Sand (Screened)	cum	0.40	182.00	72.80
Total cost of Materials				Rs:	24369.20

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
Total hire charges of Machinery				Rs:	225.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	2.00	122.30	244.60
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class I	Day	4.00	475.00	1900.00
4	Mason Class II	Day	2.00	440.00	880.00
5	mazdoor	Day	8.00	400.00	3200.00
6	Cartman with Double Bullock cart for water	Day	1.00	500.00	500.00
Total cost of Labour				Rs:	7224.60

labour component/unit qty	72.20
Add contractor's profit and overhead charges	13.615% 9.80
labour component/unit qty (including contractor's profit)	82.00

ABSTRACT:

A. Cost of Materials	Rs:	24369.20
B. Hire charges of Machinery	Rs:	225.00
C. Cost of Labour	Rs:	7224.60
Total	Rs:	31818.80

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	4332.13
Total cost for	100.00 sqm	Rs:	36150.93
Rate per sqm	(A+B+C+D)/100.0	Rs.	361.50

IRR-CAW-7-27 **Fixing PCC slabs** of various sizes in **CM 1 : 3** proportion to the side slopes of canal including preparing bed, flush pointing joints in CM 1 : 3 propn, cost of all materials (excluding PCC slabs), labour, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	240.00	3.88	931.68
2	Sand (Screened)	cum	0.50	182.00	91.00
Total cost of Materials				Rs:	1022.68

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
Total hire charges of Machinery				Rs:	225.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	2.00	122.30	244.60
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class I	Day	4.00	475.00	1900.00
4	mazdoor	Day	9.00	400.00	3600.00
5	Cartman with Double Bullock cart for water	Day	1.00	500.00	500.00
Total cost of Labour				Rs:	6744.60

labour component/unit qty	67.40
Add contractor's profit and overhead charges	13.615% 9.20
labour component/unit qty (including contractor's profit)	76.60

ABSTRACT:

A. Cost of Materials	Rs:	1022.68
B. Hire charges of Machinery	Rs:	225.00
C. Cost of Labour	Rs:	6744.60
Total	Rs:	7992.28

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	1088.15
Total cost for	100.00 sqm	Rs:	9080.43
Rate per sqm	(A+B+C+D)/100.0	Rs.	90.80

IRR-CAW-7-28 **Fixing PCC lug slabs** of various sizes in **CM 1 : 3** proportion for supporting PCC slab lining including necessary excavation, refilling, flush pointing joints in CM 1 : 3 propn, cost of all materials (excluding PCC lug slabs), labour, finishing, curing etc., complete with initial lead **upto 50 m and all lifts.**

DATA: **RATE ANALYSIS** UNIT : **100.00 Rm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
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1	Cement 43 Gr	kg	58.00	3.88	225.16
2	Sand (Screened)	cum	0.12	182.00	21.84
Total cost of Materials				Rs:	247.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)	Hour	1.00	8.30	8.30
	Fuel / Energy charges	Hour	1.00	104.20	104.20
Total hire charges of Machinery				Rs:	112.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	1.00	122.30	122.30
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class I	Day	2.00	475.00	950.00
4	Mason Class II	Day	1.00	440.00	440.00
5	mazdoor	Day	5.00	400.00	2000.00
6	Cartman with Double Bullock cart for water	Day	1.00	500.00	500.00
Total cost of Labour				Rs:	4512.30

labour component/unit qty	45.10
Add contractor's profit and overhead charges	13.615% 6.10
labour component/unit qty (including contractor's profit)	51.20

ABSTRACT:

A. Cost of Materials	Rs:	247.00
B. Hire charges of Machinery	Rs:	112.50
C. Cost of Labour	Rs:	4512.30
Total	Rs:	4871.80
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 663.3
Total cost for	100.00 Rm	Rs: 5535.10
Rate per Rm	(A+B+C+D)/100.0	Rs. 55.40

IRR-CAW-7-29 **Fixing 30 cm height pre-cast drops for field channels** as directed including excavation, etc., complete with all leads and lifts.

DATA:

RATE ANALYSIS

UNIT :

7 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

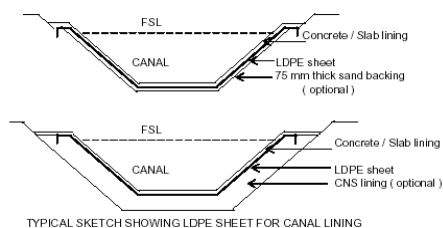
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Cl- II	Day	1.00	440.00	440.00
3	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	1340.00

labour component/unit qty	191.40
Add contractor's profit and overhead charges	13.615% 26.10
labour component/unit qty (including contractor's profit)	217.50

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1340.00
Total	Rs:	1340.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 182.44
Total cost for	7.00 Nos.	Rs: 1522.44
Rate per No.	(A+B+C+D)/7.00	Rs. 217.50

IRR-CAW-7-30 Providing and **fixing LDPE sheet for bed and sides of canal** including cost of all materials, labour, laying, joining etc., complete with all leads and lifts.
a. **Using 500 micron thick LDPE sheet.**



DATA:

RATE ANALYSIS

UNIT :

250.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	LDPE sheet 500 micron thick	sqm	275.00	78.00	21450.00
2	Bitumen 85 / 25 and 80 / 100 Gr	kg	4.00	39.00	156.00
Total cost of Materials				Rs:	21606.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Joining & laying @ 10 % of sheet cost	sqm	250.00	7.80	1950.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	2350.00

labour component/unit qty 9.40
 Add contractor's profit and overhead charges 13.615% 1.30
 labour component/unit qty (including contractor's profit) **10.70**

ABSTRACT:

A. Cost of Materials	Rs:	21606.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2350.00
Total	Rs:	23956.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 3261.61
Total cost for	250.00 sqm	Rs: 27217.61
Rate per sqm	(A+B+C+D)/250.0	Rs. 108.90

Note : i) If the surface on which the LDPE sheet is to be laid is too rough and undulating provide average 75 mm thick sand backing to LDPE sheet.

For providing average 75 mm thick sand backing :

RATE ANALYSIS

UNIT :

250.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand for filling	cum	18.75	100.00	1875.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	1875.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	2400.00

labour component/unit qty 9.60
 Add contractor's profit and overhead charges 13.615% 1.30
 labour component/unit qty (including contractor's profit) **10.90**

ABSTRACT:

A. Cost of Materials	Rs:	1875.00
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B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	2400.00
		Total	Rs: 4275.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	582.04
Total cost for	250.00 sqm	Rs:	4857.04
Rate per sqm	(A+B+C+D)/250.0	Rs.	19.40

IRR-CAW-7-31 Providing and **fixing LDPE sheet for bed and sides of canal** including cost of all materials, labour, laying, joining etc., complete **with all leads and lifts.**

b. **Using 750 micron thick LDPE sheet.**

DATA:

RATE ANALYSIS

UNIT :

250.00 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	LDPE sheet 750 micron thick		275.00	114.00	31350.00
2	Bitumen 85 / 25 and 80 / 100 Gr		4.00	39.00	156.00
Total cost of Materials				Rs:	31506.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Joining & laying @ 10 % of sheet cost	sqm	250.00	11.40	2850.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	3250.00

labour component/unit qty	13.00
Add contractor's profit and overhead charges	13.615% 1.80
labour component/unit qty (including contractor's profit)	14.80

ABSTRACT:

A. Cost of Materials	Rs:	31506.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	3250.00
	Total	Rs: 34756.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	4732.03
Total cost for	250.00 sqm	Rs:	39488.03
Rate per sqm	(A+B+C+D)/250.0	Rs.	158.00

Note : i) If the surface on which the LDPE sheet is to be laid is too rough and undulating provide average 75 mm thick unscreened sand backing to LDPE sheet.
For providing average 75 mm thick sand backing per sqm Rs: 19.40

IRR-CAW-7-32 Providing and **fixing LDPE sheet for bed and sides of canal** including cost of all materials, labour, laying, joining etc., complete **with all leads and lifts.**

c. **Using 1000 micron thick LDPE sheet.**

DATA:

RATE ANALYSIS

UNIT :

250.00 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	LDPE sheet 1000 micron thick		275.00	157.00	43175.00
2	Bitumen 85 / 25 and 80 / 100 Gr		4.00	39.00	156.00
Total cost of Materials				Rs:	43331.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Joining & laying @ 10 % of sheet cost	sqm	250.00	15.70	3925.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	4325.00

labour component/unit qty	17.30
Add contractor's profit and overhead charges	13.615% 2.40

labour component/unit qty (including contractor's profit) 19.70**ABSTRACT:**

A. Cost of Materials	Rs:	43331.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	4325.00
Total	Rs:	47656.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	6488.36
Total cost for	250.00 sqm	Rs:	54144.36
Rate per sqm	(A+B+C+D)/250.0	Rs.	216.60

Note : i) If the surface on which the LDPE sheet is to be laid is too rough and undulating provide average 75 mm thick unscreened sand backing to LDPE sheet.
For providing average 75 mm thick sand backing per sqm Rs: 19.40

IRR-CAW-7-33 Providing and fixing 12 mm thick 380 mm depth tarfelt expansion joint filler boards for stone masonry lining of canal including cost of all materials, labour etc., complete with all leads and lifts.

DATA

RATE ANALYSIS

UNIT :

100.00 Rm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tarfelt joint filler board 12 mm thick	sqm	38.75	322.00	12477.50
			0.00	0.00	
Total cost of Materials				Rs:	12477.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Carpenter Cl- II	Day	1.00	440.00	440.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	840.00

labour component/unit qty 8.40
Add contractor's profit and overhead charges 13.615% 1.10
labour component/unit qty (including contractor's profit) 9.50

ABSTRACT:

A. Cost of Materials	Rs:	12477.50
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	840.00
Total	Rs:	13317.50

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	1813.18
Total cost for	100.00 Rm	Rs:	15130.68
Rate per Rm	(A+B+C+D)/100.00	Rs.	151.30

IRR-CAW-7-34 Providing and fixing 20 mm thick 100 mm depth tarfelt expansion joint filler boards for cement concrete lining of canal including cost of all materials, labour etc., complete with all leads and lifts.

DATA

RATE ANALYSIS

UNIT :

100.00 Rm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tarfelt joint filler board 20 mm thick	sqm	10.00	489.00	4890.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	4890.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Carpenter CI- II	Day	1.00	440.00	440.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	840.00

labour component/unit qty 8.40
 Add contractor's profit and overhead charges 13.615% 1.10
 labour component/unit qty (including contractor's profit) **9.50**

ABSTRACT:

A. Cost of Materials	Rs:	4890.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	840.00
Total	Rs:	5730.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 780.14
 Total cost for 100.00 Rm Rs: **6510.14**
Rate per Rm (A+B+C+D)/100.00 Rs: **65.10**

IRR-CAW-7-35 Providing and fixing 20 mm thick 150 mm depth tarfelt expansion joint filler boards for cement concrete lining of canal including cost of all materials, labour etc., complete with all leads and lifts.

DATA: **RATE ANALYSIS** UNIT : **100.00 Rm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tarfelt joint filler board 20 mm thick	sqm	15.30	489.00	7481.70
			0.00	0.00	
Total cost of Materials				Rs:	7481.70

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Carpenter CI- II	Day	1.00	440.00	440.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	840.00

labour component/unit qty 8.40
 Add contractor's profit and overhead charges 13.615% 1.10
 labour component/unit qty (including contractor's profit) **9.50**

ABSTRACT:

A. Cost of Materials	Rs:	7481.70
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	840.00
Total	Rs:	8321.70

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 1133
 Total cost for 100.00 Rm Rs: **9454.70**
Rate per Rm (A+B+C+D)/100.00 Rs: **94.50**

IRR-CAW-7-36 Providing and forming 35 mm wide and 10 mm thick construction / contraction joints for concrete lining by mastic filler including cost of all materials, labour etc., complete with all leads and lifts.

DATA: **RATE ANALYSIS** UNIT : **100.00 Rm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Asphalt 80/100 Gr	kg	35.00	39.00	1365.00
	Sand (Screened)	cum	0.04	182.00	7.28
Total cost of Materials				Rs:	1372.28

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Cl- II	Day	0.50	440.00	220.00
2	mazdoor	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	620.00

labour component/unit qty	6.20
Add contractor's profit and overhead charges	13.615% 0.80
labour component/unit qty (including contractor's profit)	7.00

ABSTRACT:

A. Cost of Materials	Rs:	1372.28
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	620.00
Total	Rs:	1992.28
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 271.25
Total cost for	100.00 Rm	Rs: 2263.53
Rate per Rm	(A+B+C+D)/100.00	Rs. 22.60

IRR-CAW-7-37 **Manufacturing 550 x 550 x 55 mm size PCC lining slabs in M-15 grade (28 days cube compressive strength not less than 15 N /sqmm) cement concrete using 20 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc.,complete with initial lead upto 50 m and all lifts. (Cement content : 300 kg / cum with super plasticizer (0.4% by wt. of cement), CA : 0.80 cum, Blending Ratio of CA : 65:35, FA : 0.45cum equivalent concrete volume: 3.74 cum)**

DATA: **RATE ANALYSIS** UNIT : **225 Nos.**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	1122.00	3.88	4355.60
	Cement for incidentals @ 1 kg / slab	kg	225.00	3.88	873.45
2	Coarse aggregate 20-10 mm	cum	1.94	1182.00	2298.75
	Coarse aggregate 10 mm below	cum	1.05	860.00	900.59
3	Fine aggregate (Un-Screened)	cum	1.68	100.00	168.30
4	Super Plasticizer	kg	4.49	43.00	192.98
5	Use rate of moulds for 500 uses	No.	225.00	5.15	1157.66
Total cost of Materials				Rs:	9947.34

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.10	8.30	0.83
	Fuel / Energy charges	Hour	0.10	104.20	10.42
3	Water tanker 8000 ltr	Hour	0.20	359.00	71.80
	Fuel / Energy charges	Hour	0.20	393.70	78.74
Total hire charges of Machinery				Rs:	1343.39
Aportioned hire charges of machinery for lining slab				90%	Rs: 1209.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.10	122.30	12.23
3	Crew for Water tanker	Hour	0.20	193.10	38.62
4	Mason Class-I	Day	2.00	475.00	950.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor	Day	3.00	400.00	1200.00
	for batching materials / laying CC	Day	2.00	400.00	800.00
	for demoulding / oiling / laying	Day	1.00	400.00	400.00
	for shifting slabs to curing pond	Day	1.00	400.00	400.00
	for stacking after curing	Day	1.00	400.00	400.00
	for cleaning & miscellaneous	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	6635.25
Aportioned cost of labour for lining slabs				90%	Rs: 5971.73

labour component/unit qty	26.50
Add contractor's profit and overhead charges	13.615% 3.60
labour component/unit qty (including contractor's profit)	30.10

ABSTRACT:

A. Cost of Materials	Rs:	9947.34
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B. Hire charges of Machinery		Rs:	1209.05
C. Cost of Labour		Rs:	5971.73
	Total	Rs:	17128.12
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	2331.99
Total cost for	225.00 Nos.	Rs:	19460.11
Rate per each	(A+B+C+D)/225.0	Rs.	86.50

IRR-CAW-7-38 **Manufacturing 550 x 300 x 55 mm size PCC lug slabs in M-15 grade** (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using **20 mm down graded** coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content : 300 kg / cum with super plasticizer (0.4% by wt. of cement),
CA : 0.80 cum, Blending Ratio of CA : 65:35, FA : 0.45cum,
equivalent concrete volume: 0.23 cum)

DATA: **RATE ANALYSIS** UNIT : **25 Nos.**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	69.00	3.88	267.86
					48.53
	Cement for incidentals @ 0.5 kg/slab	kg	12.50	3.88	
2	Coarse aggregate 20-10 mm	cum	0.12	1182.00	141.37
	Coarse aggregate 10 mm below	cum	0.06	860.00	55.38
3	Fine aggregate (Un-Screened)	cum	0.10	100.00	10.35
4	Super Plasticizer	kg	0.28	43.00	11.87
5	Use rate of moulds for 500 uses	No.	25.00	3.22	80.39
Total cost of Materials				Rs:	615.75

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.10	8.30	0.83
	Fuel / Energy charges	Hour	0.10	104.20	10.42
3	Water tanker 8000 ltr	Hour	0.20	359.00	71.80
	Fuel / Energy charges	Hour	0.20	393.70	78.74
Total hire charges of Machinery				Rs:	1343.39
Aportioned hire charges of machinery for lug slabs				10%	Rs: 134.34

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.10	122.30	12.23
3	Crew for Water tanker	Hour	0.20	193.10	38.62
4	Mason Class-I	Day	2.00	475.00	950.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor	Day	3.00	400.00	1200.00
	for batching materials / laying CC	Day	2.00	400.00	800.00
	for demoulding / oiling / laying	Day	1.00	400.00	400.00
	for shifting slabs to curing pond	Day	1.00	400.00	400.00
	for stacking after curing	Day	1.00	400.00	400.00
	for cleaning & miscellaneous	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	6635.25
Aportioned cost of labour for lug slabs				10%	Rs: 663.53

labour component/unit qty	26.50
Add contractor's profit and overhead charges	13.615% 3.60
labour component/unit qty (including contractor's profit)	30.10

ABSTRACT:

A. Cost of Materials		Rs:	615.75	
B. Hire charges of Machinery		Rs:	134.34	
C. Cost of Labour		Rs:	663.53	
Total		Rs:	<u>1413.61</u>	
D. Add for contractor's profit and overheads on (A+B+C)		13.615%	Rs:	192.46
Total cost for		25.00 Nos.	Rs:	1606.07
Rate per	each	(A+B+C+D)/25.0	Rs.	64.20

IRR-CAW-7-39 **Manufacturing 450 x 300 x 30 mm size PCC lining slabs in M-15 grade** (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using **10 mm down graded** coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**

(Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement),
CA : 0.68 cum, FA : 0.43cum)

DATA: RATE ANALYSIS UNIT : 225 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	270.00	3.88	1048.14
					436.73
	Cement for incidentals @ 0.5 kg/slab	kg	112.50	3.88	
2	Coarse aggregate 10 mm below	cum	0.61	860.00	526.32
3	Fine aggregate (Un-Screened)	cum	0.39	100.00	38.70
4	Super Plasticizer	kg	1.08	43.00	46.44
5	Use rate of moulds for 250 uses	No.	225.00	2.14	481.35
Total cost of Materials				Rs:	2577.68

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand mixer 45 / 30 ltr	Hour	8.00	4.50	36.00
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	5 hp pump (diesel)	Hour	0.10	8.30	0.83
	Fuel / Energy charges	Hour	0.10	104.20	10.42
3	Water tanker 8000 ltr	Hour	0.20	359.00	71.80
	Fuel / Energy charges	Hour	0.20	393.70	78.74
Total hire charges of Machinery				Rs:	197.79
Aportioned hire charges of machinery for lining slab				90% Rs:	178.01

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	0.10	122.30	12.23
2	Crew for Water tanker	Hour	0.20	193.10	38.62
3	Mason Class-I	Day	2.00	475.00	950.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor				
	for batching / mixing / laying	Day	2.00	400.00	800.00
	for demoulding / cleaning / oiling	Day	2.00	400.00	800.00
	for shifting slabs to curing pond	Day	1.00	400.00	400.00
	for stacking after curing	Day	1.00	400.00	400.00
	for cleaning & miscellaneous	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	4300.85
Aportioned cost of labour for lining slabs				90% Rs:	3870.77

labour component/unit qty 17.20

Add contractor's profit and overhead charges 13.615% 2.30

labour component/unit qty (including contractor's profit) **19.50**

ABSTRACT:

A. Cost of Materials	Rs:	2577.68
B. Hire charges of Machinery	Rs:	178.01
C. Cost of Labour	Rs:	3870.77
Total	Rs:	6626.45

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 902.19

Total cost for 225.00 Nos. Rs: **7528.64**

Rate per each (A+B+C+D)/225.0 Rs: **33.50**

IRR-CAW-7-40 **Manufacturing 450 x 150 x 30 mm size PCC lug slabs in M-15 grade (28 days cube compressive strength not less than 15 N / sqmm) cement concrete using 10 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc.,complete with initial lead upto 50 m and all lifts.**
(Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement),
CA : 0.68 cum, FA : 0.43cum)

DATA: RATE ANALYSIS UNIT : 25 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	15.00	3.88	58.23
					29.12
	Cement for incidentals @ 0.3 kg/slab	kg	7.50	3.88	
2	Coarse aggregate 10 mm below	cum	0.03	860.00	29.24
3	Fine aggregate (Un-Screened)	cum	0.02	100.00	2.15
4	Super Plasticizer	kg	0.06	43.00	2.58
5	Use rate of moulds for 250 uses	No.	25.00	1.18	29.62
Total cost of Materials				Rs:	150.94

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand mixer 45 / 30 ltr	Hour	8.00	4.50	36.00
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	5 hp pump (diesel)	Hour	0.10	8.30	0.83
	Fuel / Energy charges	Hour	0.10	104.20	10.42
3	Water tanker 8000 ltr	Hour	0.20	359.00	71.80
	Fuel / Energy charges	Hour	0.20	393.70	78.74
Total hire charges of Machinery				Rs:	197.79
Aportioned hire charges of machinery for lug slabs				10%	Rs: 19.78

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	0.10	122.30	12.23
2	Crew for Water tanker	Hour	0.20	193.10	38.62
3	Mason Class-I	Day	2.00	475.00	950.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor				
	for batching / mixing / laying	Day	2.00	400.00	800.00
	for demoulding / cleaning / oiling	Day	2.00	400.00	800.00
	for shifting slabs to curing pond	Day	1.00	400.00	400.00
	for stacking after curing	Day	1.00	400.00	400.00
	for cleaning & miscellaneous	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	4300.85
Aportioned cost of labour for lug slabs				10%	Rs: 430.09

labour component/unit qty 17.20

Add contractor's profit and overhead charges 13.615% 2.30

labour component/unit qty (including contractor's profit) **19.50****ABSTRACT:**

A. Cost of Materials	Rs:	150.94
B. Hire charges of Machinery	Rs:	19.78
C. Cost of Labour	Rs:	430.09
Total	Rs:	600.80

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 25.00 Nos. Rs: **682.60****Rate per each** (A+B+C+D)/25.0 Rs. **27.30**

IRR-CAW-7-41 **Manufacturing 600 x 300 x 100mm size PCC lining slabs in M-15 grade** (28 days cube compressive strength not less than 15 N/Sqmm) cement concrete using **20mm down grades** coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with **initial lead upto 50 m and all lifts.**

(Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement),
CA : 0.80 cum, FA : 0.45cum, Blending Ratio of CA--65:35)

DATA: **RATE ANALYSIS** UNIT: **225** Nos.

A. MATERIALS :

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	Kg	1215	3.88	4716.63
2	Cement for incidentals @ 0.5kg/slab	Kg	112.5	3.88	436.73
3	Coarse aggregate 20 mm below	Cum	2.11	1182.00	2489.29
4	Coarse aggregate 10 mm below	Cum	1.13	860.00	975.24
5	Fine aggregate (Un-Screened)	Cum	1.82	100.00	182.25
6	Super Plasticizer	kg	4.86	43.00	208.98
7	Use rate of moulds for 250 uses	No.	225	1.23	276.75
Total Cost of Materials Rs.					9285.87

B. MACHINERY :

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Diesel mixer 300/200	Hour	8	43.50	348.00
	Fuel/Energy charges	Hour	8	104.20	833.60
2	5 hp pump (diesel)	Hour	0.1	8.30	0.83
	Fuel/Energy charges	Hour	0.1	104.20	10.42

3	Water tanker 8000 ltr	Hour	0.2	359.00	71.80
	Fuel/Energy charges	Hour	0.2	393.70	78.74
Total hire charges of Machinery Rs.					1343.39
Aportioned hire charges of machinery @ 90% for lining slab Rs.					1209.05

C. LABOUR :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	0.1	122.30	12.23
2	Crew for water tanker	Hour	0.2	193.10	38.62
3	Mason Class-I	Day	2	475.00	950.00
4	Class II Mason	Day	1	440.00	440.00
5	Mazdoor				
	For batching materials/laying	Day	2	400.00	800.00
	For demoulding/cleaning/oiling		2	400.00	800.00
	For shifting slabs to curing pond		1	400.00	400.00
	For stacking after curing		1	400.00	400.00
	For cleaning & miscellaneous	Day	1	400.00	400.00
Total Cost of Labour Rs.					4240.85
Aportioned cost of labour for lining slabs Rs.					3816.77

labour component/unit qty	17.00
Add contractor's profit and overhead charges	13.615% 2.30
labour component/unit qty (including contractor's profit)	<u>19.30</u>

ABSTRACT :

A. Cost of Materials	Rs.	9285.867
B. Hire Charges of machinery	Rs.	1209.05
C. Cost of Labour	Rs.	3816.77
Total	Rs.	<u>14311.68</u>

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	1948.54
Total cost for	225.00 Nos.	Rs:	16260.22
Rate per each	(A+B+C+D)/225.0	Rs.	72.30

IRR-CAW-7-42 **Manufacturing 400 x 400 x 30 mm size PCC lining slabs in M-15 grade** (28 days cube compressive strength not less than 15 N / sqmm)cement concrete using **10 mm down graded** coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc.,complete **with initial lead upto 50 m and all lifts.**
(Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement),
CA : 0.68 cum, FA : 0.43cum)

Total cost / use Rs: 2.17

DATA:

RATE ANALYSIS

UNIT :

225 Nos.

A. MATERIALS:

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	324.00	3.88	1257.77
	Cement for incidentals @ 0.5 kg/slab	kg	112.50	3.88	436.73
2	Coarse aggregate 10 mm below	cum	0.73	860.00	631.58
3	Fine aggregate (Un-Screened)	cum	0.46	100.00	46.44
4	Super Plasticizer	kg	1.30	43.00	55.73
5	Use rate of moulds for 250 uses	No.	225.00	2.17	487.45
Total cost of Materials				Rs:	2915.70

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand mixer 45 / 30 ltr	Hour	8.00	4.50	36.00
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	5 hp pump (diesel)	Hour	0.10	8.30	0.83
	Fuel / Energy charges	Hour	0.10	104.20	10.42
3	Water tanker 8000 ltr	Hour	0.20	359.00	71.80
	Fuel / Energy charges	Hour	0.20	393.70	78.74
Total hire charges of Machinery				Rs:	197.79
Aportioned hire charges of machinery for lining slab				90% Rs:	178.01

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate	Amount
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				in Rs.	in Rs.
1	Crew for Pump	Hour	0.10	122.30	12.23
2	Crew for Water tanker	Hour	0.20	193.10	38.62
3	Mason Class-I	Day	2.00	475.00	950.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor				
	for batching / mixing / laying	Day	2.00	400.00	800.00
	for demoulding / cleaning / oiling	Day	2.00	400.00	800.00
	for shifting slabs to curing pond	Day	1.00	400.00	400.00
	for stacking after curing	Day	1.00	400.00	400.00
	for cleaning & miscellaneous	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	4300.85
Aportioned cost of labour for lining slabs				90%	Rs: 3870.77
labour component/unit qty			17.20		
Add contractor's profit and overhead charges			13.615%	2.30	
labour component/unit qty (including contractor's profit)				19.50	

ABSTRACT:

A. Cost of Materials	Rs:	2915.70
B. Hire charges of Machinery	Rs:	178.01
C. Cost of Labour	Rs:	3870.77
Total	Rs:	6964.47
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 948.21
Total cost for	225.00 Nos.	Rs: 7912.68
Rate per each	(A+B+C+D)/225.0	Rs. 35.20

IRR-CAW-7-43 **Manufacturing 400 x 150 x 30 mm size PCC lug slabs in M-15 grade (28 days cube compressive strength not less than 15 N /sqmm) cement concrete using 10 mm down graded coarse aggregate including cost of all materials, machinery, labour, batching, mixing, laying, compacting, formwork, finishing, curing etc., complete with initial lead upto 50 m and all lifts.**
(Cement content : 300 kg / cum with super plastcizer (0.4% by wt. of cement),
CA : 0.68 cum, FA : 0.43cum)

DATA:

RATE ANALYSIS

UNIT :

25 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	13.50	3.88	52.41
	Cement for incidentals @ 0.3 kg/slab	kg	7.50	3.88	29.12
2	Coarse aggregate 10 mm below	cum	0.03	860.00	26.32
3	Fine aggregate (Un-Screened)	cum	0.02	100.00	1.94
4	Super Plasticizer	kg	0.05	43.00	2.32
5	Use rate of moulds for 250 uses	No.	25.00	1.15	28.77
Total cost of Materials				Rs:	140.87

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand mixer 45 / 30 ltr	Hour	8.00	4.50	36.00
	Fuel / Energy charges	Hour	8.00	0.00	0.00
2	5 hp pump (diesel)	Hour	0.10	8.30	0.83
	Fuel / Energy charges	Hour	0.10	104.20	10.42
3	Water tanker 8000 ltr	Hour	0.20	359.00	71.80
	Fuel / Energy charges	Hour	0.20	393.70	78.74
Total hire charges of Machinery				Rs:	197.79
Aportioned hire charges of machinery for lug slabs				10%	Rs: 19.78

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	0.10	122.30	12.23
2	Crew for Water tanker	Hour	0.20	193.10	38.62
3	Mason Class-I	Day	2.00	475.00	950.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor				
	for batching / mixing / laying	Day	2.00	400.00	800.00
	for demoulding / cleaning / oiling	Day	2.00	400.00	800.00
	for shifting slabs to curing pond	Day	1.00	400.00	400.00
	for stacking after curing	Day	1.00	400.00	400.00
	for cleaning & miscellaneous	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	4300.85
Aportioned cost of labour for lug slabs				10%	Rs: 430.09

labour component/unit qty 17.20
Add contractor's profit and overhead charges 13.615% 2.30

labour component/unit qty (including contractor's profit) **19.50****ABSTRACT:**

A. Cost of Materials	Rs:	140.87
B. Hire charges of Machinery	Rs:	19.78
C. Cost of Labour	Rs:	430.09
Total	Rs:	590.73

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	80.43
Total cost for	25.00 Nos.	Rs:	671.16
Rate per each	(A+B+C+D)/25.0	Rs.	26.80

IRR-CAW-7-44 Providing and **laying uncoursed rubble stone masonry** in **CM 1 : 5** proportion **for canal side** lining using stones and chips from **approved quarry** including cost of all materials, machinery, labour, forming weep holes at specified intervals, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Thickness of the masonry assumed: 0.3 m, rubble stones : 0.96 cum, Stone Chips : 0.15cum, Through Stones 20 x 20 x 30cm : 1/sqm)

DATA: **RATE ANALYSIS** UNIT : **10.00 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	1152.00	3.88	4472.06
2	Sand (Screened)	cum	4.00	182.00	728.00
3	Uncoursed rubble stones at quarry	cum	9.60	303.00	2908.80
4	Through stones 20x20x30 cm	Nos	32.00	21.00	672.00
5	Stone chips at quarry	cum	1.50	333.00	499.50
Total cost of Materials				Rs:	9280.36

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)	Hour	4.00	8.30	33.20
	Fuel / Energy charges	Hour	4.00	104.20	416.80
Total hire charges of Machinery				Rs:	450.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	4.00	122.30	489.20
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class I	Day	2.00	475.00	950.00
4	Mason Class II	Day	2.00	440.00	880.00
5	mazdoor	Day	8.00	400.00	3200.00
6	Cartman with Double Bullock cart for water	Day	1.00	500.00	500.00
Total cost of Labour				Rs:	6519.20

labour component/unit qty 651.90
 Add contractor's profit and overhead charges 13.615% 88.80
 labour component/unit qty (including contractor's profit) **740.70**

ABSTRACT:

A. Cost of Materials	Rs:	9280.36
B. Hire charges of Machinery	Rs:	450.00
C. Cost of Labour	Rs:	6519.20
Total	Rs:	16249.56

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	2212.38
Total cost for	10.00 cum	Rs:	18461.94
Rate per cum	(A+B+C+D)/10.0	Rs.	1846.20

IRR-CAW-7-45 Providing and **laying uncoursed rubble stone masonry** in **CM 1:5** proportion **for canal side** lining using stones from approved quarry including cost of all materials, machinery, labour, forming weep holes at specified intervals, finishing, curing etc., complete **with initial lead upto 50m and all lifts.(without pin headers) : 1.1 cum)**
(Thickness of the Masonry assumed: 0.3 m , rubble stones

DATA: **RATE ANALYSIS** UNIT: **10** Cum**A. MATERIALS :**

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	Kg	979.2	3.88	3801.25
2	Sand (Screened)	Cum	3.4	182.00	618.80
3	Uncoursed rubble stones at quarry	Cum	11	303.00	3333.00

Total Cost of Materials Rs.	7753.0544
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B. MACHINERY :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand Mixing Charges	Hour	8	4.50	36.00
2	5 hp pump (diesel)	Hour	4	8.30	33.20
	Fuel / Energy charges	Hour	5	104.20	521.00
Total hire charges of Machinery Rs.					590.20

C. LABOUR :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	4	122.30	489.20
2	Mason Class I	Day	13	475.00	6175.00
3	Mason Class II	Day	6	440.00	2640.00
4	Mazdoor	Day	29	400.00	11600.00
5	Cartman with Double Bullock cart for water	Day	1	500.00	500.00
Total Cost of Labour Rs.					21404.20

labour component/unit qty	2140.40
Add contractor's profit and overhead charges	13.615% 291.40
labour component/unit qty (including contractor's profit)	2431.80

ABSTRACT :

A. Cost of Materials	Rs.	7753.0544
B. Hire Charges of Machinery	Rs.	590.2
C. Cost of Labour	Rs.	21404.20
Total	Rs.	29747.45

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs.	4050.12
Total cost for	10.00 Cum	Rs.	33797.57
Rate per Cum	(A+B+C+D)/10.0	Rs.	3379.80

IRR-CAW-7-46 Providing and **laying uncoursed rubble stone masonry in CM 1 : 5 proportion for canal side lining using stones** and chips from canal excavation including cost of all materials, machinery, labour, forming weep holes at specified interval, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(rubble stones : 0.96 cum, Stone Chips : 0.15cum, Through Stones 20 x 20 x 30cm : 1/sqm)

Note: Stones and chips will be issued from dump yard at specified issue rate.

DATA:

RATE ANALYSIS

UNIT :

10.00 cum**A. MATERIALS:**

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	1144.00	3.88	4441.01
2	Sand (Screened)	cum	4.00	182.00	728.00
3	Uncoursed rubble at dump yard	cum	9.60	148.00	1420.80
4	Through stones 20x20x30 cm	Nos	32.00	21.00	672.00
5	Stone chips at dump yard	cum	1.50	176.00	264.00
Total cost of Materials				Rs.	7525.81

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)	Hour	4.00	8.30	33.20
	Fuel / Energy charges	Hour	4.00	104.20	416.80
Total hire charges of Machinery				Rs.	450.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	4.00	122.30	489.20
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class I	Day	2.00	475.00	950.00
4	Mason Class II	Day	2.00	440.00	880.00
5	Crowbarman	Day	1.00	440.00	440.00
6	mazdoor	Day	9.00	400.00	3600.00
7	Cartman with Double Bullock cart for water	Day	1.00	500.00	500.00
Total cost of Labour				Rs.	7359.20

labour component/unit qty	735.90
Add contractor's profit and overhead charges	13.615% 100.20
labour component/unit qty (including contractor's profit)	836.10

ABSTRACT:

A. Cost of Materials	Rs.	7525.81
B. Hire charges of Machinery	Rs.	450.00

C. Cost of Labour		Rs:	7359.20
	Total	Rs:	15335.01
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	2087.86
Total cost for	10.00 cum	Rs:	17422.87
Rate per cum	(A+B+C+D)/10.0	Rs.	1742.30

IRR-CAW-7-47 Providing and **laying uncoursed rubble stone masonry in CM 1:5 proportion for canal side lining** using stones from canal excavation including cost of all materials, machinery, labour, forming weep holes at specified intervals, finishing, curing etc., complete **with initial lead upto 50m and all lifts.**
(rubble stones : 1.1cum, cement : 98kg, sand 0.34 cum)

DATA: **RATE ANALYSIS** UNIT: **10** Cum

A. MATERIALS :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	Kg	980	3.88	3804.36
2	Sand (Screened)	Cum	3.4	182.00	618.80
3	Uncoursed rubble at dump yard	Cum	11	148.00	1628.00
Total Cost of Materials Rs.					6051.16

B. MACHINERY :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hand Mixing Charges	Hour	8	4.50	36.00
2	5 hp pump (diesel)	Hour	4	8.30	33.20
	Fuel / Energy charges	Hour	5	104.20	521.00
Total hire charges of Machinery Rs.					590.20

C. LABOUR :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator pump	Hour	4	122.30	489.20
2	Mason Class I	Day	13	475.00	6175.00
3	Mason Class II	Day	6	440.00	2640.00
4	Mazdoor	Day	29	400.00	11600.00
5	Cartman with double bullock cart	Day	1	500.00	500.00
Total Cost of Labour Rs.					21404.20

labour component/unit qty 2140.40
Add contractor's profit and overhead charges 13.615% 291.40
labour component/unit qty (including contractor's profit) **2431.80**

ABSTRACT :

A. Cost of Materials	Rs.	6051.16
B. Hire Charges of Machinery	Rs.	590.2
C. Cost of Labour	Rs.	<u>21404.20</u>
Total	Rs.	28045.56

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	3818.4
Total cost for	10.00 Cum	Rs:	31863.96
Rate per Cum	(A+B+C+D)/10.0	Rs.	3186.40

IRR-CAW-8 **ROCK PITCHING:**

IRR-CAW-8-1 Providing and **constructing 25 cm thick dry rubble stone pitching with pin headers at 2 per sqm** including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.
(rubble stones : 0.23 cum/sqm, Stone Chips : 0.0375cum/sqm, Pin Headers 30cm : 2/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Uncoursed rubble stones at quarry	cum	23.00	303.00	6969.00
2	Pin header (Through stone) 30 cm	Nos	200.00	21.00	4200.00
3	Stone chips at quarry	cum	3.75	333.00	1248.75
Total cost of Materials					Rs: 12417.75

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
Total hire charges of Machinery					Rs: 0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	5.00	440.00	2200.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	5100.00

labour component/unit qty 51.00

Add contractor's profit and overhead charges 13.615% 6.90

labour component/unit qty (including contractor's profit) **57.90****ABSTRACT:**

A. Cost of Materials Rs: 12417.75

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 5100.00

Total Rs: **17517.75**

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Rs: 2385.04

Total cost for 100.00 sqm

Rs: **19902.79**

Rate per sqm (A+B+C+D)/100.0

Rs. **199.00**

Note: If 15 cm thick murum bed is to be provided below pitching
(Murum : 0.18 cum/sqm)

DATA:

RATE ANALYSIS

UNIT :

100.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Murum	cum	18.00	185.00	3330.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	3330.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	1600.00

labour component/unit qty 16.00

Add contractor's profit and overhead charges 13.615% 2.20

labour component/unit qty (including contractor's profit) **18.20****ABSTRACT:**

A. Cost of Materials Rs: 3330.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 1600.00

Total Rs: **4930.00**

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Rs: 671.22

Total cost for 100.00 sqm

Rs: **5601.22**

Rate per sqm (A+B+C+D)/100.0

Rs. **56.00**

IRR-CAW-8-1-A Providing and constructing 22.5 cm thick dry rubble stone pitching with pin headers at 2 per

(New Item4 - 2011-12)

sqm including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.

(rubble stones : 0.207 cum/sqm, Stone Chips : 0.03375cum/sqm, Pin Headers 30cm : 2/sqm)

(For Maintenance works)

DATA:

RATE ANALYSIS

UNIT :

100.00 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Uncoursed rubble stones at quarry	cum	20.70	303.00	6272.10
2	Pin header (Through stone) 30 cm	Nos	200.00	21.00	4200.00
3	Stone chips at quarry	cum	3.375	333.00	1123.88
Total cost of Materials				Rs:	11595.98

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00

		0.00	0.00	0.00
Total hire charges of Machinery			Rs.	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	5.00	440.00	2200.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs.	5100.00

labour component/unit qty 51.00

Add contractor's profit and overhead charges 13.615% 6.90

labour component/unit qty (including contractor's profit) **57.90****ABSTRACT:**

A. Cost of Materials	Rs.	11595.98
B. Hire charges of Machinery	Rs.	0.00
C. Cost of Labour	Rs.	5100.00
Total	Rs.	16695.98

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs. 2273.16

Total cost for 100.00 sqm Rs. **18969.14****Rate per sqm** (A+B+C+D)/100.0 Rs. **189.70**

IRR-CAW-8-2 Providing and **constructing 25 cm thick dry rubble stone pitching** including cost of all materials, labour, hand packing, finishing etc., complete
(rubble stones : 0.275 cum/sqm)

DATA: **RATE ANALYSIS** UNIT: **100** Sqm.

A. MATERIALS :

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Uncoursed rubble stones at quarry	Cum	27.50	303.00	8332.50
Total Cost of Materials Rs.					8332.5

B. MACHINERY :

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0	0	0
Total hire charges of Machinery Rs.					0

C. LABOUR :

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Class II	Day	5.50	440.00	2420.00
2	Mazdoor	Day	24.75	400.00	9900.00
Total Cost of Labour Rs.					12320.00

labour component/unit qty 123.20

Add contractor's profit and overhead charges 13.615% 16.80

labour component/unit qty (including contractor's profit) **140.00****ABSTRACT :**

A. Cost of Materials	Rs.	8332.5
B. Hire Charges of Machinery	Rs.	0
C. Cost of Labour	Rs.	12320.00
Total	Rs.	20652.50

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs. 2811.84

Total cost for 100.00 Sqm. Rs. **23464.34****Rate per Sqm.** (A+B+C+D)/100.0 Rs. **234.60**

NOTE: If 15 cm thick murum bed is to be provided below pitching add in Rs. 56.00
(As per rate analysis under item IRR-CAW-8-1- Note)

IRR-CAW-8-2-A Providing and **constructing 225 mm thick dry rubble stone pitching** including cost of all materials, labour, hand packing, finishing etc., complete
(rubble stones : 0.2475 cum/sqm) (For Maintenance Works)

DATA: **RATE ANALYSIS** UNIT: **100** Sqm.

A. MATERIALS :

SI. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
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1	Rough Stone for Revetment	Cum	24.75	138.00	3415.50
2	Stone Chips at Quarry	Cum	3.40	333.00	1132.20
Total Cost of Materials Rs.					4547.7

B. MACHINERY :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0	0	
			0	0	
Total hire charges of Machinery Rs.					0

C. LABOUR :

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Class II	Day	4.95	440.00	2178.00
2	Mazdoor	Day	22.28	400.00	8910.00
Total Cost of Labour Rs.					11088.00

labour component/unit qty 110.90
 Add contractor's profit and overhead charges 13.615% 15.10
 labour component/unit qty (including contractor's profit) **126.00**

ABSTRACT :

A. Cost of Materials	Rs.	4547.7
B. Hire Charges of Machinery	Rs.	0
C. Cost of Labour	Rs.	11088.00
Total	Rs.	15635.70
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 2128.8
Total cost for	100.00 Sqm.	Rs: 17764.50
Rate per Sqm.	(A+B+C+D)/100.0	Rs. 177.60

IRR-CAW-8-3 Providing and **constructing 30 cm thick dry rubble stone pitching with pin headers at 2 per sqm** including cost of all materials, labour, hand packing, finishing etc., complete with initial **lead upto 50 m and all lifts.**
(rubble stones : 0.275 cum/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Uncoursed rubble stones at quarry	cum	27.50	303.00	8332.50
2	Pin header (Through stone) 30 cm	Nos	200.00	21.00	4200.00
3	Stone chips at quarry	cum	4.50	333.00	1498.50
Total cost of Materials				Rs:	14031.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	5.00	440.00	2200.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	5100.00

labour component/unit qty 51.00
 Add contractor's profit and overhead charges 13.615% 6.90
 labour component/unit qty (including contractor's profit) **57.90**

ABSTRACT:

A. Cost of Materials	Rs:	14031.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	5100.00
Total	Rs:	19131.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs: 2604.69
Total cost for	100.00 sqm	Rs: 21735.69
Rate per sqm	(A+B+C+D)/100.0	Rs. 217.40

NOTE: If 15 cm thick murum bed is to be provided below pitching add 56.00
 (As per rate analysis under item IRR-CAW-8-1- Note)

IRR-CAW-8-4 Providing and **Constructing 30 cm thick dry rubble stone pitching** including cost of all materials,labour,hand packing,finishing etc.,complete (rubble stones : 0.33 cum/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS :

SI No	Particulars	Unit	Quantity	Rate in Rs	Amount in Rs
1	Uncoursed rubble stones at Quarry	Cum	33.00	303.00	9999.00
(Included in material Rate)					
Total Cost of materials Rs :					9999.00

B.MACHINERY :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of machinery Rs :					0.00

C.LABOUR :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Mason Class II	Day	6.60	440.00	2904.00
2	Mazdoor	Day	29.70	400.00	11880.00
Total cost of labour Rs :					14784.00

labour component/unit qty 147.80
 Add contractor's profit and overhead charges 13.615% 20.10
 labour component/unit qty (including contractor's profit) **167.90**

ABSTRACT

A. Cost of Materials including ryolty charges Rs: 9999.00
 B. Hire charges of Machinery Rs: 0.00
 C. Cost of Labour Rs: 14784.00
Total Rs: 24783.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 3374.21
 Total cost for 100.00 sqm Rs: **28157.21**
Rate per sqm (A+B+C+D)/100.0 Rs. 281.60

NOTE: If 15 cm thick murum bed is to be provided below pitching Rs : 56.00
 Add (As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-5 Providing and **constructing 45 cm thick dry rubble stone pitching with pin headers at 2 per sqm** including cost of all materials, labour, hand packing, finishing etc., complete with initial lead upto 50 m and all lifts.
 (rubble stones : 0.40 cum/sqm, Stone Chips : 0.0675cum/sqm, Pin Headers 45cm : 2/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Uncoursed rubble stones at quarry	cum	40.00	303.00	12120.00
2	Pin header (Through stone) 45 cm	Nos	200.00	37.00	7400.00
3	Stone chips at quarry	cum	6.75	333.00	2247.75
Total cost of Materials Rs:					21767.75

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	
			0.00	0.00	
Total hire charges of Machinery Rs:					0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
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1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	7.00	440.00	3080.00
3	mazdoor	Day	9.00	400.00	3600.00
Total cost of Labour				Rs:	7180.00
labour component/unit qty			71.80		
Add contractor's profit and overhead charges			13.615%	9.80	
labour component/unit qty (including contractor's profit)			81.60		

ABSTRACT:

A. Cost of Materials	Rs:	21767.75
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	7180.00
Total	Rs:	28947.75

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	3941.24
Total cost for	100.00 sqm	Rs:	32888.99
Rate per sqm	(A+B+C+D)/100.0	Rs.	328.90

NOTE: If 15 cm thick murum bed is to be provided below pitching add (As per rate analysis under item IRR-CAW-8-1 - Note) 56.00

IRR-CAW-8-6 Providing and **Constructing 45 cm thick dry rubble stone pitching**
including cost of all materials,labour,hand packing,finishing etc.,complete
(rubble stones : 0.495 cum/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS :

SI No	Particulars	Unit	Quantity	Rate in Rs	Amount in Rs
1	Uncoursed rubble stones at Quarry	Cum	49.50	303.00	14998.50
(Included in material Rate)					
Total Cost of materials Rs :					14998.50

B.MACHINERY :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of machinery Rs :					0.00

C.LABOUR :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Mason Class II	Day	9.90	440.00	4356.00
2	Mazdoor	Day	44.55	400.00	17820.00
Total cost of labour Rs :					22176.00

labour component/unit qty	221.80
Add contractor's profit and overhead charges	13.615% 30.20
labour component/unit qty (including contractor's profit)	252.00

ABSTRACT

A. Cost of Materials including ryolty charges	Rs:	14998.50
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	22176.00
Total	Rs:	37174.50

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	5061.31
Total cost for	100.00 sqm	Rs:	42235.81
Rate per sqm	(A+B+C+D)/100.0	Rs.	422.40

NOTE: If 15 cm thick murum bed is to be provided below pitching Add (As per rate analysis under item IRR-CAW-8-1 - Note) Rs : 56.00

IRR-CAW-8-7 Providing and **constructing 30 cm thick rubble stone pitching** set in **CM 1: 5** proportion with **pin headers at 2 per sqm** in including cost of all materials, labour, packing chips and mortar, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(rubble stones : 0.275 cum/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
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1	Uncoursed rubble stones at quarry	cum	27.50	303.00	8332.50
2	Pin header (Through stone) 30 cm	Nos	200.00	21.00	4200.00
3	Stone chips @ 15 % at quarry	cum	4.50	333.00	1498.50
4	Cement	kg	3000.00	3.88	11646.00
5	Sand (Screened)	cum	10.50	182.00	1911.00
Total cost of Materials				Rs:	27588.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp pump (diesel)		2.00	8.30	16.60
	Fuel / Energy charges		2.00	104.20	208.40
Total hire charges of Machinery				Rs:	225.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	2.00	122.30	244.60
2	work inspector	Day	1.00	500.00	500.00
3	Mason Class II	Day	5.00	440.00	2200.00
4	mazdoor	Day	12.00	400.00	4800.00
5	Catman with double bullock cart	Day	2.00	500.00	1000.00
Total cost of Labour				Rs:	8744.60

labour component/unit qty 87.40

Add contractor's profit and overhead charges 13.615% 11.90

labour component/unit qty (including contractor's profit) **99.30****ABSTRACT:**

A. Cost of Materials	Rs:	27588.00
B. Hire charges of Machinery	Rs:	225.00
C. Cost of Labour	Rs:	8744.60
Total	Rs:	36557.60

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 4977.32

Total cost for 100.00 sqm Rs: **41534.92****Rate per sqm** (A+B+C+D)/100.0 Rs. **415.30**

NOTE: If 15 cm thick murum bed is to be provided below pitching add 56.00
(As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-8 Providing and **Constructing 30 cm thick rubble stone pitching** set in **CM 1:5** Proportion including cost of all materials,labour, packing chips and mortar ,finishing etc.,complete (rubble stones : 0.33 cum/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 Sqm****A. MATERIALS :**

SI No	Particulars	Unit	Quantity	Rate in Rs	Amount in Rs
1	Uncoursed rubble stones at Quarry	Cum	33.00	303.00	9999.00
2	Cement	Kg	3232.00	3.88	12546.62
3	Sand (Screened)	Cum	11.22	182.00	2042.04
Total Cost of materials Rs :					24587.66

B.MACHINERY :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Nil		0.00	0.00	0.00
Total hire charges of machinery Rs :					0.00

C.LABOUR :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Mason Class I	Day	0.54	475.00	256.50
2	Mason Class II	Day	1.26	440.00	554.40
3	Mazdoor	Day	2.80	400.00	1120.00
Total cost of labour Rs :					1930.90

labour component/unit qty 19.30

Add contractor's profit and overhead charges 13.615% 2.60

labour component/unit qty (including contractor's profit) **21.90****ABSTRACT**

A. Cost of Materials	Rs:	24587.66
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1930.90
Total	Rs:	26518.56

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	3610.5
Total cost for	100.00 Sqm	Rs:	30129.06
Rate per Sqm	(A+B+C+D)/100.0	Rs.	301.30

NOTE: If 15 cm thick murum bed is to be provided below pitching Rs : 56.00
Add (As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-9 Providing and **constructing 30 cm thick dry khandki stone pitching using 20 to 25 cm size khandki stones with pin headers at 2 per sqm** including cost of all materials, labour, hand packing, finishing etc., complete **with initial lead upto 50 m and all lifts.**
(Khandki stones 20- 25 cm height : 1200 Nos/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Khandki stones 20-25 cm height	Nos	1200.00	14.00	16800.00
2	Pin header (Through stone) 30 cm	Nos	200.00	21.00	4200.00
3	Stone chips	cum	4.50	333.00	1498.50
Total cost of Materials				Rs:	22498.50

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	5.00	440.00	2200.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	5100.00

labour component/unit qty 51.00
Add contractor's profit and overhead charges 13.615% 6.90
labour component/unit qty (including contractor's profit) **57.90**

ABSTRACT:

A. Cost of Materials	Rs:	22498.50
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	5100.00
Total	Rs:	27598.50

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	3757.54
Total cost for	100.00 sqm	Rs:	31356.04
Rate per sqm	(A+B+C+D)/100.0	Rs.	313.60

NOTE: If 15 cm thick murum bed is to be provided below pitching add 56.00
(As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-10 Providing and **constructing 45 cm thick dry khandki stone pitching using 25 to 30 cm size khandki stones with pin headers at 2 per sqm** including cost of all materials, labour, hand packing, finishing etc., complete **with initial lead upto 50 m and all lifts.**
(Khandki stones 25- 30 cm height : 1200 Nos/sqm, Stone Chips : 0.0675cum/sqm, Pin Headers 45cm : 2/sqm)

DATA: **RATE ANALYSIS** UNIT : **100.00 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Khandki stones 25-30 cm height	Nos	730.00	16.00	11680.00
2	Pin headers 45 cm	Nos	200.00	37.00	7400.00
3	Stone chips	cum	6.75	333.00	2247.75
Total cost of Materials				Rs:	21327.75

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
-------	-------------	------	----------	-------------	---------------

1	Nil	0.00	0.00	0.00
		0.00	0.00	0.00
Total hire charges of Machinery			Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	7.00	440.00	3080.00
3	mazdoor	Day	9.00	400.00	3600.00
Total cost of Labour				Rs:	7180.00

labour component/unit qty 71.80

Add contractor's profit and overhead charges 13.615% 9.80

labour component/unit qty (including contractor's profit) **81.60****ABSTRACT:**

A. Cost of Materials	Rs:	21327.75
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	7180.00
Total	Rs:	28507.75

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 100.00 sqm Rs: 3881.33

Rate per sqm (A+B+C+D)/100.0 Rs: **32389.08**

NOTE: If 15 cm thick murum bed is to be provided below pitching add 56.00
(As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-11 Providing and constructing 30 cm thick khandki stone pitching using 20 to 25 cm size khandki stones with pin headers at 2 per sqm set in CM 1 : 5 proportion with pointing joints in CM 1:3 proportion including cost of all materials, labour, packing chips and mortar, finishing, curing etc.complete with initial lead upto 50 m and all lifts.
(Khandki stones 20- 25 cm height : 1200 Nos/sqm, Stone Chips : 0.045cum/sqm, Pin Headers 30cm : 2/sqm)

DATA: RATE ANALYSIS UNIT : 100.00 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Khandki stones 20-25 cm height	Nos	1200.00	14.00	16800.00
2	Pin headers 30 cm long	Nos	200.00	21.00	4200.00
3	Stone chips @ 15 % at quarry	cum	4.50	333.00	1498.50
4	Cement	kg	2902.00	3.88	11265.56
5	Sand (Screened)	cum	9.67	182.00	1759.94
Total cost of Materials				Rs:	35524.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp diesel pump	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
Total hire charges of Machinery				Rs:	225.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	2.00	122.30	244.60
2	work inspector	Day	1.00	500.00	500.00
3	Cartman with double bullock cart	Day	2.00	500.00	1000.00
4	Mason Class II	Day	5.00	440.00	2200.00
5	mazdoor	Day	11.00	400.00	4400.00
Total cost of Labour				Rs:	8344.60

labour component/unit qty 83.40

Add contractor's profit and overhead charges 13.615% 11.40

labour component/unit qty (including contractor's profit) **94.80****ABSTRACT:**

A. Cost of Materials	Rs:	35524.00
B. Hire charges of Machinery	Rs:	225.00
C. Cost of Labour	Rs:	8344.60
Total	Rs:	44093.60

D. Add for contractor's profit and overheads on (A+B+C) 13.615%

Total cost for 100.00 sqm Rs: 6003.34

Rate per sqm (A+B+C+D)/100.0 Rs: **50096.94**

NOTE: If 15 cm thick murum bed is to be provided below pitching add 56.00
(As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-12 Providing and constructing 45 cm thick khandki stone pitching using 25 to 30 cm stones with pin headers at 2 per sqm set in CM 1 : 5 proportion with pointing joints in CM 1 : 3 proportion including cost of all materials, labour, packing chips and mortar, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Khandki stones 25- 30 cm height : 730 Nos/sqm, Stone Chips : 0.0675cum/sqm, Pin Headers 45cm : 2/sqm)

DATA: RATE ANALYSIS UNIT : 100.00 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Khandki stones 25-30 cm height	Nos	730.00	16.00	11680.00
2	Pin headers 45 cm	Nos	200.00	37.00	7400.00
3	Stone chips @ 15 % at quarry	cum	6.75	333.00	2247.75
4	Cement	kg	4050.00	3.88	15722.10
5	Sand (Screened)	cum	13.99	182.00	2546.18
Total cost of Materials				Rs:	39596.03

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	5 hp diesel pump	Hour	4.00	8.30	33.20
	Fuel / Energy charges	Hour	4.00	104.20	416.80
Total hire charges of Machinery				Rs:	450.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Pump	Hour	4.00	122.30	489.20
2	work inspector	Day	1.00	500.00	500.00
3	Cartman with double bullock cart	Day	2.00	500.00	1000.00
4	Mason Class II	Day	7.00	440.00	3080.00
5	mazdoor	Day	16.00	400.00	6400.00
Total cost of Labour				Rs:	11469.20

labour component/unit qty 114.70
Add contractor's profit and overhead charges 13.615% 15.60
labour component/unit qty (including contractor's profit) **130.30**

ABSTRACT:

A. Cost of Materials Rs: 39596.03
B. Hire charges of Machinery Rs: 450.00
C. Cost of Labour Rs: 11469.20
Total Rs: **51515.23**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 7013.8
Total cost for 100.00 sqm Rs: **58529.03**
Rate per sqm (A+B+C+D)/100.0 Rs: **585.30**

NOTE: If 15 cm thick murum bed is to be provided below pitching add 56.00
(As per rate analysis under item IRR-CAW-8-1 - Note)

IRR-CAW-8-13 Providing 10 cm thick approved type grass turfing to the side slopes of canal including cost of all materials, labour, watering for minimum 15 days etc., complete with lead 50 m and all lifts.
(FA : 2 cum/sqm)

DATA: RATE ANALYSIS UNIT : 100.00 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Turfing sods	sqm	100.00	24.00	2400.00
2	Sand for filling	cum	2.00	100.00	200.00
Total cost of Materials				Rs:	2600.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.10	500.00	50.00
2	Cartman with double bullock cart	Day	2.00	500.00	1000.00

3	mazdoor	Day	14.00	400.00	5600.00
Total cost of Labour				Rs:	6650.00
labour component/unit qty			66.50		
Add contractor's profit and overhead charges			13.615%	9.10	
labour component/unit qty (including contractor's profit)			75.60		

ABSTRACT:

A. Cost of Materials	Rs:	2600.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	6650.00
Total	Rs:	9250.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	1259.39
Total cost for	100.00 sqm	Rs:	10509.39
Rate per sqm	(A+B+C+D)/100.0	Rs.	105.10

IRR-CAW-8-14 **Providing 10 cm Thick approved type gross turfing to the side slopes of canal including cost of all materials ,labour,watering for minimum 15 days etc.,,complete. with initial lead upto 50 m and all lifts (WITHOUT USING SAND)**

DATA: **RATE ANALYSIS** UNIT : **100.00 Sqm**

A. MATERIALS :

SI No	Particulars	Unit	Quantity	Rate in Rs	Amount in Rs
1	Turfing Sods	Sqm	100.00	24.00	2400.00
Total Cost of materials Rs :					2400.00

B.MACHINERY :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Null		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of machinery Rs :					0.00

C.LABOUR :

SI No	Description	Unit	Quantity	Rate in Rs	Amount in Rs
1	Mazdoor	Day	7.00	400.00	2800.00
2	Cart men with double bullock cart	Day	2.00	500.00	1000.00
Total cost of labour Rs :					3800.00

labour component/unit qty	38.00
Add contractor's profit and overhead charges	13.615% 5.20
labour component/unit qty (including contractor's profit)	43.20

ABSTRACT

A. Cost of Materials including ryolty charges	Rs:	2400.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	3800.00
Total	Rs:	6200.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	844.13
Total cost for	100.00 Sqm	Rs:	7044.13
Rate per Sqm	(A+B+C+D)/100.0	Rs.	70.40

CHAPTER-IV

CANAL CROSS DRAINAGE WORKS - Standard Data

(WLL BE WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)

FOR THE YEAR :2018-19

Index- code

IRR-CCDW

CANAL CROSS DRAINAGE WORKS - DATA RATES

Directions to add Seigniorage Charges and Additional Lead Charges**Seigniorage Charges:**

1. The unit rate for work item in the Standard Data is **exclusive of Seigniorage Charges** wherever applicable.
2. The appropriate Seigniorage Charges for relevant materials are to be added to the Unit rate of work item while preparing the estimate. (i.e., to the data itself)
3. The Provision towards Contractor's Profit and Overhead charges **should not be operated on** the Seigniorage Charges while adding Seigniorage Charges to the data in the estimate

Additional Lead and Lift Charges:

1. Unless otherwise specified the basic rates are inclusive of all lifts.
2. For concrete, masonry and reinforcement items **wherever** initial lead of 1km is considered in the basic rate, the additional lead as follows:

Additional lead charges for Steel, sand, coarse aggregate, stones and stone chips shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.

In case of Cement and Steel, Loading and unloading charges are already added in the work item while arriving the unit rate and hence should not be added again

Example:

Total lead for sand from approved sand quarry :	15
Initial lead included in the basic rate in the SR :	1
Additional lead charges :	
	Lead charges fo Rs. 86.40
	Lead charges for next 10 kr Rs. 130
	Total lead charges for 15 kr Rs. 216.40
	Less 1 km initial lead charg Rs. 32.40
	Net additional lead charges Rs. 184.00

3. The Leads for Steel shall be from the nearest market place to the Project area

4. For earth/rockfill embankments **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:

Additional lead charges for Earth, Murrum etc., shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.

(same as above)

Example:

Total lead for earth from approved borrow area :	15
Initial lead included in the basic rate in the SR :	1
Additional lead charges :	
	Lead charges fo Rs. 86.40
	Lead charges for next 10 kr Rs. 130
	Total lead charges for 15 kr Rs. 216.40
	Less 1 km initial lead charg Rs. 32.40
	Net additional lead charges Rs. 184.00

5. The initial lead up to 50 m as mentioned in some standard data items is meant for manual lead within the working area. For conveyance of materials, the lead required from quarry/Borrow area/ Dump Area to worksite shall be added to the data without deducting the 50 m initial lead charges

CCDW - Work ItemsIRR-CCDW-1 **EXCAVATION & FOUNDATION TREATMENT WORKS :**

- IRR-CCDW-1-1 Excavation in all kinds of soil including boulders **upto 0.30 m dia.** for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto **50 m and initial lift upto 3 m.**

DATA:

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00

Total cost of Materials	Rs:	0.00
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B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	2525.00

labour component/unit qty 252.50

Add contractor's profit and overhead charges 13.615% 34.40

labour component/unit qty (including contractor's profit) **286.90****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 2525.00

Total Rs: 2525.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 343.78

Total cost for 10.00 cum Rs: **2868.78****Rate per cum** (A+B+C+D)/10.0 Rs: **286.90**

IRR-CCDW-1-2

Excavation for Structures- Mechanical Means (Data adopted from MORTH)

Earth work in excavation in all kinds of soils of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material.

Depth upto 3 m

Unit = cum

DATA:

Taking output = 240 cum

Unit 240.00 cum**A. Materials:**

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
	NIL		0.00	0.00	0.00

B. Machinery:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hydraulic excavator 1.0 cum bucket capacity	hour	6.00	1388.50	8331.00
	Fuel/ Energy charges	hour	6.00	1145.70	6874.20
Total in Rs.					15205.20

C. Labour:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	day	0.32	500.00	160.00
2	Mazdoor	day	8.00	400.00	3200.00
3	crew for excavator	hour	6.00	257.40	1544.40
Total in Rs.					4904.40

labour component/unit qty 20.40

Add contractor's profit and overhead charges 13.615% 2.80

labour component/unit qty (including contractor's profit) **23.20****Abstract**

a) Material Rs 0.00

b) Machinery Rs 15205.20

c) Labour Rs 4904.40

Total Rs 20109.60

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2737.92

Total cost for 240.00 cum Rs: **22847.52****Rate per cum** (A+B+C+D)/240.0 Rs: **95.20**

IRR-CCDW-1-3

Excavation in ordinary rock (including HDR) without blasting including boulders above 0.3 m upto 0.60 m dia.

for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.

DATA:

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crowbarman	Day	1.25	440.00	550.00
2	Stone breaker	Day	1.25	440.00	550.00
3	work inspector	Day	0.25	500.00	125.00
4	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	3625.00

labour component/unit qty 362.50

Add contractor's profit and overhead charges 13.615% 49.40

labour component/unit qty (including contractor's profit) **411.90****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 3625.00

Total Rs: 3625.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 493.54

Total cost for 10.00 cum Rs: **4118.54****Rate per cum** (A+B+C+D)/10.0 Rs: **411.90**

IRR-CCDW-1-4

Excavation in **ordinary rock without blasting** for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.

(Data adopted from MORTH)

Mechanical Means

Unit = cum

Taking output = 180 cum

Unit: **180.00** cum

DATA:

A. Materials:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
	NIL		0.00	0.00	0.00

B. Machinery:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1.0	Hydraulic excavator 1.0 cum bucket capacity	hour	6.00	1388.50	8331.00
	Fuel/ Energy charges	hour	6.00	1145.70	6874.20
Total in Rs.					15205.20

C. Labour:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	day	0.24	500.00	120.00
2	Mazdoor	day	6.00	400.00	2400.00
3	crew for excavator	hour	6.00	257.40	1544.40
Total in Rs.					4064.40

labour component/unit qty 22.60

Add contractor's profit and overhead charges 13.615% 3.10

labour component/unit qty (including contractor's profit) **25.70**

Abstract

a) Material		Rs	0.00
b) Machinery		Rs	15205.20
c) Labour		Rs	4064.40
Total		Rs	19269.60
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	2623.56
Total cost for	180.00 cum	Rs:	21893.16
Rate per cum	(A+B+C+D)/180.0	Rs.	121.60

IRR-CCDW-1-5 Excavation in hard rock requiring blasting including boulders above 0.6 m upto 1.2 m dia. for foundations of canal cross drainage and other appurtenant structures and placing the excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.

DATA:

RATE ANALYSIS

UNIT : 100 cum

A. MATERIALS:

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of drill rod 1.6 m length	Rm	43.50	17.85	776.48
	Reconditioning charges @ 10%				77.65
2	Use rate of air hose 2 Nos.	Hour	6.00	0.21	1.23
3	Explosive small dia (Kelvex-220)	kg	20.00	56.48	1129.68
4	Electric detonators	Nos	29.00	9.41	273.01
5	Detonating fuse coil	Rm	70.00	7.32	512.54
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	2786.08

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 8.5 cmm (diesel)	Hour	3.00	224.20	672.60
	Fuel / Energy charges	Hour	3.00	1171.80	3515.40
2	Jack hammers 2 Nos.	Hour	6.00	16.10	96.60
	Fuel / Energy charges	Hour	6.00	0.00	0.00
Total hire charges of Machinery				Rs:	4284.60

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	3.00	232.10	696.30
2	Crew for Jack hammer	Hour	6.00	362.70	2176.20
3	work inspector	Day	1.00	500.00	500.00
4	Blaster	Day	0.50	550.00	275.00
5	Helper blaster	Day	0.50	440.00	220.00
6	Crowbarman	Day	6.00	440.00	2640.00
7	Stone breaker	Day	3.00	440.00	1320.00
8	mazdoor	Day	51.00	400.00	20400.00
Total cost of Labour				Rs:	28227.50

labour component/unit qty	282.30
Add contractor's profit and overhead charges	13.615% 38.40
labour component/unit qty (including contractor's profit)	<u>320.70</u>

ABSTRACT:

A. Cost of Materials		Rs:	2786.08
B. Hire charges of Machinery		Rs:	4284.60
C. Cost of Labour		Rs:	28227.50
Total		Rs:	35298.18
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	4805.85
Total cost for	100.00 cum	Rs:	40104.029
Rate per cum	(A+B+C+D)/100.0	Rs.	401.00

IRR-CCDW-1-6 Excavation in hard rock of all toughness by blasting including boulders above 1.2 m dia. for foundations of canal cross drainage and other appurtenant structures and placing the excavated rock neatly in specified dump area or stack yard as directed etc., complete with initial lead upto 50 m and initial lift upto 3 m.

DATA:

RATE ANALYSISUNIT : **100.00 cum****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Explosive small dia (Kelvex-220)	kg	32.00	56.48	1807.49
2	Ordinary detonator	No.	8.00	5.23	41.84
3	Electric detonator	No.	104.00	9.41	979.06
4	Detonating fuse coil	Rm	150.00	7.32	1098.30
5	Use rate of air hose 2 Nos.	Hour	16.00	10.25	164.00
6	Use rate of drill rod	Rm	98.30	23.80	2339.54
	Reconditioning charges @	10%			233.95
Total cost of Materials				Rs:	6664.18

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 8.5 cmm (diesel)	Hour	8.00	224.20	1793.60
	Fuel / Energy charges	Hour	8.00	1171.80	9374.40
2	Jack hammer 2 Nos	Hour	16.00	16.10	257.60
	Fuel / Energy charges	Hour	16.00	0.00	0.00
Total hire charges of Machinery				Rs:	11425.60

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	8.00	232.10	1856.80
2	Crew for Jack hammer	Hour	16.00	362.70	5803.20
3	Blaster licensed	Day	1.00	550.00	550.00
4	Helper blasting	Day	1.00	440.00	440.00
5	work inspector	Day	1.00	500.00	500.00
6	Crowbarman	Day	6.00	440.00	2640.00
7	Stone breaker	Day	6.00	440.00	2640.00
8	mazdoor	Day	51.00	400.00	20400.00
Total cost of Labour				Rs:	34830.00

labour component/unit qty

348.30

Add contractor's profit and overhead charges

13.615% 47.40

labour component/unit qty (including contractor's profit)

395.70**ABSTRACT:**

A. Cost of Materials

Rs: 6664.18

B. Hire charges of Machinery

Rs: 11425.60

C. Cost of Labour

Rs: 34830.00

Total

Rs: 52919.78

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs:

7205.03

Total cost for

100.00 cum

Rs:

60124.81**Rate per cum**

(A+B+C+D)/100.0

Rs.

601.20

IRR-CCDW-1-7

Excavation in **hard rock with blasting prohibited** for foundations of canal cross drainage and other appurtenant structures and placing the excavated rock neatly in or stack yard as directed etc., complete with specified dump area **initial lead upto 50 m and initial lift upto 3 m.**

Hard Rock (blasting prohibited)**(Data adopted from MORTH)**

Unit = cum

DATA:

Taking output = 10 cum

Mechanical Means

10.00 cum**A.Materials:**

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
	NIL		0.00	0.00	0.00

b) Machinery

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1.0	Air Compressor 250 cft with 2 leads of pneumatic breaker	hour	6.00	196.30	1177.80
	Fuel/ Energy charges	hour	6.00	937.40	5624.40
Total in Rs.					6802.20

c) Labour

Sl No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	work inspector	day	0.20	500.00	100.00
2	Mazdoor	day	5.00	400.00	2000.00
3	crew for compressor	hour	6.00	232.10	1392.60
	Total in Rs.				3492.60

labour component/unit qty 349.30

Add contractor's profit and overhead charges 13.615% 47.60

labour component/unit qty (including contractor's profit) **396.90****Abstract**

a) Material		Rs	0.00
b) Machinery		Rs	6802.20
c) Labour		Rs	3492.60
Total		Rs	10294.80
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		1401.64
Total cost for	10.00 cum	Rs:	11696.44
Rate per cum	(A+B+C+D)/10.0	Rs.	1169.60

IRR-CCDW-1-8 Providing and fixing **25 mm dia 2.50 m long cold twisted deformed steel anchor rods** with 1.25 m length driven into 32 mm dia hole drilled in bed rock and remaining length embedded in concrete / masonry including cost of all materials, machinery, labour, drilling and cleaning hole, driving anchor rod, grouting hole with thick cement slurry etc., complete with initial lead **upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **10.00 Nos.****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Cement for grouting	kg	5.00	3.88	19.41
2	25 mm dia steel	kg	101.00	42.00	4242.00
3	Use rate of 32 mm dia drill rod	Rm	12.50	23.80	297.50
	Reconditioning charges @	10%			29.75
4	Use rate of air hose	Hour	2.00	10.25	20.50
	Total cost of Materials			Rs:	4609.16

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Air compressor 8.5 cmm (diesel)	Hour	1.00	224.20	224.20
	Fuel / Energy charges	Hour	1.00	1171.80	1171.80
2	Jack hammer 2 Nos	Hour	2.00	16.10	32.20
	Fuel / Energy charges	Hour	2.00	0.00	0.00
	Total hire charges of Machinery			Rs:	1428.20

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Crew for Air compressor	Hour	1.00	232.10	232.10
2	Crew for Jack hammer	Hour	2.00	362.70	725.40
3	Mason Class-II	Day	0.50	440.00	220.00
4	Bar bender	Day	0.50	600.00	300.00
5	work inspector	Day	0.50	500.00	250.00
6	mazdoor	Day	1.00	400.00	400.00
	Total cost of Labour			Rs:	2127.50

labour component/unit qty 212.80

Add contractor's profit and overhead charges 13.615% 29.00

labour component/unit qty (including contractor's profit) **241.80****ABSTRACT:**

A. Cost of Materials		Rs:	4609.16
B. Hire charges of Machinery		Rs:	1428.20
C. Cost of Labour		Rs:	2127.50
	Total	Rs:	8164.86
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		1111.65
Total cost for	10.00 Nos.	Rs:	9276.51
Rate per each	(A+B+C+D)/10.0	Rs.	927.70

IRR-CCDW-2 **STEEL AND CEMENT CONCRETE WORKS :**

IRR-CCDW-2-1 Providing, fabricating and **placing in position reinforcement steel bars for RCC works** including cleaning, straightening, cutting, bending, hooking, lapping, welding wherever required, tying with 1.25 mm dia soft annealed steel wire, including cost of all materials, machinery, labour etc., **complete with initial lead upto 50 and all lifts.**

DATA:

RATE ANALYSISUNIT : **1000.00 kg****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rein.Steel with 5 % wastage	kg	1050.00	42.00	44100.00
2	Binding wire 1.25 mm dia	kg	8.00	53.00	424.00
3	Sundries (chairs / spacers etc)	LS	3.00	31.00	93.00
Total cost of Materials				Rs:	44617.00

B. MACHINERY:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Bar bender	Day	6.00	600.00	3600.00
3	mazdoor	Day	11.00	400.00	4400.00
Total cost of Labour				Rs:	8500.00

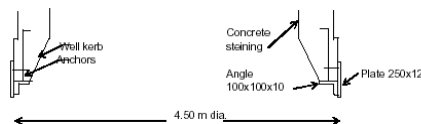
labour component/unit qty 8.50

Add contractor's profit and overhead charges 13.615% 1.20

labour component/unit qty (including contractor's profit) **9.70****ABSTRACT:**

A. Cost of Materials	Rs:	44617.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	8500.00
	Total	Rs: 53117.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	7231.88
Total cost for	1000.00 kg	Rs: 60348.88
Rate per kg	(A+B+C+D)/1000.0	Rs. 60.30

IRR-CCDW-2-2 Providing, fabricating and **fixing in position structural steel cutting edge** consisting of 100 x 100 x 10 mm angle and 250 x 12 mm plate for sinking for sinking 4.50 m outer diameter foundation wells foundation wells including cost of all materials, machinery, labour, bending, welding, providing anchors etc., complete **with initial lead upto 50 m and all lifts.**



DETAILS OF FOUNDATION WELL CUTTING EDGE

DATA:

RATE ANALYSISUNIT : **615.00 kg****A. MATERIALS:**

Sl No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Str.Steel angle with 2.5 % wastage	kg	216.10	41.30	8924.93
2	Str.Steel plate with 2.5 % wastage	kg	342.30	41.20	14102.76
3	Steel for anchors	kg	56.60	42.00	2377.20
4	Acetyline gas	cum	0.50	293.00	146.50
5	Oxygen gas	cum	1.50	36.00	54.00
6	Welding electrodes	Nos	300.00	11.00	3300.00
7	Sundries	LS	5.00	31.00	155.00

Total cost of Materials	Rs: 29060.39
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B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Bending machine	Hour	8.00	37.80	302.40
	Fuel / Energy charges	Hour	8.00	127.60	1020.80
2	Welding set	Hour	30.00	14.10	423.00
	Fuel / Energy charges	Hour	30.00	102.10	3063.00
3	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs:	5119.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Str. Steel fabricator	Day	2.00	595.00	1190.00
2	Welder / Gas cutter	Day	5.00	490.00	2450.00
3	work inspector	Day	1.00	500.00	500.00
4	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	6140.00

labour component/unit qty	10.00
Add contractor's profit and overhead charges	13.615% 1.40
labour component/unit qty (including contractor's profit)	11.40

ABSTRACT:

A. Cost of Materials	Rs:	29060.39
B. Hire charges of Machinery	Rs:	5119.20
C. Cost of Labour	Rs:	6140.00
	Total	Rs: 40319.59
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	5489.51
Total cost for	615.00 kg Rs:	45809.1
Rate per kg	(A+B+C+D)/615.0 Rs.	74.50

IRR-CCDW-2-3 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N /sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**
(Cement content: 260 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

Data

RATE ANALYSISUNIT : **15.38 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3998.80	3.88	15523.34
	Cement for incidentals @ 3 kg / cum	kg	46.14	3.88	179.12
2	Coarse aggregate 40-20 mm	cum	6.92	1133.00	7841.49
	Coarse aggregate 20-10 mm	cum	4.15	1182.00	4908.37
	Coarse aggregate 10 mm below	cum	2.77	860.00	2380.82
3	Fine aggregate (Un-Screened)	cum	6.15	100.00	615.20
4	Super Plasticizer	kg	16.00	43.00	687.79
5	Use rate of shuttering for 40 uses	sqm	15.38	228.86	3519.80
	Scaffolding @ of shuttering	10%			351.98
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	36023.42

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
5	work inspector	Day	1.00	500.00	500.00
6	Mason Class-I	Day	1.00	475.00	475.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.38	400.00	6152.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	15.38	99.60	1531.85
	Labour cost for scaffolding @	10%			153.18
Total cost of Labour				Rs:	19993.48

labour component/unit qty 1300.00

Add contractor's profit and overhead charges 13.615% 177.00

labour component/unit qty (including contractor's profit) **1477.00****ABSTRACT:**

A. Cost of Materials Rs: 36023.42

B. Hire charges of Machinery Rs: 2225.75

C. Cost of Labour Rs: 19993.48

Total Rs: 58242.65

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 7929.74

Total cost for 15.38 cum Rs: **66172.39****Rate per cum** (A+B+C+D)/15.38 Rs: **4302.50**

IRR-CCDW-2-4 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

(Cement content: 250 kg / cum with use of super plasticiser(0.4% by wt. of cement),**CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum)**

DATA:

RATE ANALYSISUNIT : **14.40 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3600.00	3.88	13975.20
	Cement for incidentals @ 3 kg / cum	kg	43.20	3.88	167.70
2	Coarse aggregate 80-40 mm	cum	4.94	622.00	3072.18
	Coarse aggregate 40-20 mm	cum	4.23	1133.00	4796.67
	Coarse aggregate 20-10 mm	cum	2.82	1182.00	3336.08
	Coarse aggregate 10 mm below	cum	2.12	860.00	1820.45
3	Fine aggregate (Un-Screened)	cum	5.04	100.00	504.00
4	Super Plasticizer	kg	14.40	43.00	619.20
5	Use rate of shuttering for 40 uses	sqm	14.40	228.86	3295.52
	Scaffolding @ of shuttering	10%			329.55
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	31932.05

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	8.00	75.40	603.20
	Fuel / Energy charges	Hour	8.00	208.30	1666.40
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 60 mm dia (petrol)	Hour	8.00	6.70	53.60
	Fuel / Energy charges	Hour	8.00	34.80	278.40
Total hire charges of Machinery				Rs:	3410.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.40	400.00	5760.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	14.40	99.60	1434.24
	Labour cost for scaffolding @	10%			143.42
Total cost of Labour				Rs:	19494.11

labour component/unit qty 1353.80

Add contractor's profit and overhead charges 13.615% 184.30

labour component/unit qty (including contractor's profit) **1538.10****ABSTRACT:**

A. Cost of Materials		Rs:	31932.05
B. Hire charges of Machinery		Rs:	3410.55
C. Cost of Labour		Rs:	19494.11
	Total	Rs:	54836.71
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	7466.02
Total cost for	14.40 cum	Rs:	62302.73
Rate per cum	(A+B+C+D)/14.40	Rs.	4326.60

IRR-CCDW-2-5 Providing and **laying insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

(Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSISUNIT : **16.36 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3599.20	3.88	13972.09
	Cement for incidentals @ 3 kg / cum	kg	49.08	3.88	190.53
2	Coarse aggregate 40-20 mm	cum	7.36	1133.00	8341.15
	Coarse aggregate 20-10 mm	cum	4.42	1182.00	5221.13
	Coarse aggregate 10 mm below	cum	2.94	860.00	2532.53
3	Fine aggregate (Un-Screened)	cum	6.54	100.00	654.40
4	Super Plasticizer	kg	14.40	43.00	619.06
5	Use rate of shuttering for 40 uses	sqm	16.36	228.86	3744.08
	Scaffolding @ of shuttering	10%			374.41
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	35664.87

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	16.36	400.00	6544.00
8	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
9	Labour cost for shuttering	sqm	16.36	99.60	1629.46
Total cost of Labour				Rs:	20329.91

labour component/unit qty

1242.70

Add contractor's profit and overhead charges

13.615% 169.20

labour component/unit qty (including contractor's profit)

1411.90**ABSTRACT:**

A. Cost of Materials

Rs: 35664.87

B. Hire charges of Machinery

Rs: 2225.75

C. Cost of Labour

Rs: 20329.91

Total

Rs: 58220.53

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs:

7926.73

Total cost for

16.36 cum

Rs:

66147.26**Rate per cum**

(A+B+C+D)/16.36

Rs.

4043.20

IRR-CCDW-2-6 Providing and laying **insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**
(Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum)

DATA:

RATE ANALYSISUNIT : **14.55 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3201.00	3.88	12426.28
	Cement for incidentals @ 3 kg / cum	kg	43.65	3.88	169.45
2	Coarse aggregate 80-40 mm	cum	4.99	622.00	3104.18
	Coarse aggregate 40-20 mm	cum	4.28	1133.00	4846.63
	Coarse aggregate 20-10 mm	cum	2.85	1182.00	3370.83
	Coarse aggregate 10 mm below	cum	2.14	860.00	1839.41
3	Fine aggregate (Un-Screened)	cum	5.09	100.00	509.25
4	Super Plasticizer	kg	12.80	43.00	550.57
5	Use rate of shuttering for 40 uses	sqm	14.55	228.86	3329.85
	Scaffolding @ of shuttering	10%			332.98
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	30494.94

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	8.00	75.40	603.20
	Fuel / Energy charges	Hour	8.00	208.30	1666.40
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 60 mm dia (petrol)	Hour	8.00	6.70	53.60
	Fuel / Energy charges	Hour	8.00	34.80	278.40
Total hire charges of Machinery				Rs:	3410.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.55	400.00	5820.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	14.55	99.60	1449.18
	Labour cost for scaffolding @	10%			144.92
Total cost of Labour				Rs:	19570.55

labour component/unit qty 1345.10

Add contractor's profit and overhead charges 13.615% 183.10

labour component/unit qty (including contractor's profit) **1528.20****ABSTRACT:**

A. Cost of Materials	Rs:	30494.94
B. Hire charges of Machinery	Rs:	3410.55
C. Cost of Labour	Rs:	19570.55
	Total	Rs: 53476.04
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	7280.76
Total cost for	14.55 cum	Rs: 60756.80
Rate per cum	(A+B+C+D)/14.55	Rs. 4175.70

IRR-CCDW-2-7 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates for foundation filling including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts. (Cement content : 220 kg / cum)**
(Cement content: 310 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSISUNIT : **14.19 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4398.90	3.88	17076.53
	Cement for incidentals @ 3 kg / cum	kg	42.57	3.88	165.26
2	Coarse aggregate 40-20 mm	cum	6.39	1133.00	7234.77
	Coarse aggregate 20-10 mm	cum	3.83	1182.00	4528.60
	Coarse aggregate 10 mm below	cum	2.55	860.00	2196.61
3	Fine aggregate (Un-Screened)	cum	5.68	100.00	567.60
4	Super Plasticizer	kg	17.60	43.00	756.61
5	Use rate of shuttering for 40 uses	sqm	14.19	228.86	3247.46
	Scaffolding @ of shuttering	10%			324.75
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	36113.68

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.19	400.00	5676.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	14.19	99.60	1413.32
	Labour cost for scaffolding @	10%			141.33
Total cost of Labour				Rs:	19387.11

labour component/unit qty

1366.30

Add contractor's profit and overhead charges

13.615%

186.00

labour component/unit qty (including contractor's profit)

1552.30

ABSTRACT:

A. Cost of Materials		Rs:	36113.68
B. Hire charges of Machinery		Rs:	2225.75
C. Cost of Labour		Rs:	19387.11
	Total	Rs:	57726.54
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	7859.47
Total cost for	14.19 cum	Rs:	65586.01
Rate per cum	(A+B+C+D)/14.19	Rs.	4622.00

IRR-CCDW-2-8 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **for sub-structure / super- structure works** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content: 320 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSISUNIT : **15.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4800.00	3.88	18633.60
	Cement for incidentals @ 5 kg / cum	kg	75.00	3.88	291.15
2	Coarse aggregate 40-20 mm	cum	6.75	1133.00	7647.75
	Coarse aggregate 20-10 mm	cum	4.05	1182.00	4787.10
	Coarse aggregate 10 mm below	cum	2.70	860.00	2322.00
3	Fine aggregate (Un-Screened)	cum	6.00	100.00	600.00
4	Super Plasticizer	kg	19.20	43.00	825.60
5	Use rate of shuttering	sqm	30.00	228.86	6865.67
	Scaffolding @ of shuttering	25%			1716.42
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	43704.78

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying including lifting	Day	4.00	400.00	1600.00
	for conveying concrete	Day	15.00	400.00	6000.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	15.00	99.60	1494.00
	Labour cost for scaffolding @	25%			373.50

Total cost of Labour	Rs:	20423.95
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labour component/unit qty	1361.60
Add contractor's profit and overhead charges	13.615% 185.40
labour component/unit qty (including contractor's profit)	1547.00

ABSTRACT:

A. Cost of Materials		Rs:	43704.78
B. Hire charges of Machinery		Rs:	2225.75
C. Cost of Labour		Rs:	20423.95
	Total	Rs:	66354.48
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	9034.16
Total cost for	15.00 cum	Rs:	75388.64
Rate per cum	(A+B+C+D)/15.0	Rs.	5025.90

IRR-CCDW-2-9 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for sub-structure / super- structure works** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSISUNIT : **15.76 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.80	3.88	20189.51
	Cement for incidentals @ 5 kg / cum	kg	78.80	3.88	305.90
2	Coarse aggregate 20-10 mm	cum	8.20	1182.00	9686.73
	Coarse aggregate 10 mm below	cum	4.41	860.00	3795.01
3	Fine aggregate (Un-Screened)	cum	7.09	100.00	709.20
4	Super Plasticizer	kg	20.80	43.00	894.54
5	Use rate of shuttering	sqm	31.52	228.86	7213.53
	Scaffolding @ of shuttering	25%			1803.38
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	44613.29

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	4.00	400.00	1600.00
	for conveying concrete	Day	15.76	400.00	6304.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	31.52	99.60	3139.39
	Labour cost for scaffolding @	25%			784.85
Total cost of Labour				Rs:	22784.69

labour component/unit qty	1445.70
Add contractor's profit and overhead charges	13.615% 196.80
labour component/unit qty (including contractor's profit)	1642.50

ABSTRACT:

A. Cost of Materials		Rs:	44613.29
B. Hire charges of Machinery		Rs:	2225.75
C. Cost of Labour		Rs:	22784.69
	Total	Rs:	69623.73
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	9479.27
Total cost for	15.76 cum	Rs:	79102.999
Rate per cum	(A+B+C+D)/15.76	Rs.	5019.20

IRR-CCDW-2-10 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for sub-structure / super- structure works** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content: 280 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSISUNIT : **15.71 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4398.80	3.88	17076.14
	Cement for incidentals @ 5 kg / cum	kg	78.55	3.88	304.93
2	Coarse aggregate 20-10 mm	cum	8.17	1182.00	9655.99
	Coarse aggregate 10 mm below	cum	4.40	860.00	3782.97
3	Fine aggregate (Un-Screened)	cum	7.07	100.00	706.95
4	Super Plasticizer	kg	17.60	43.00	756.59
5	Use rate of shuttering for 40 uses	sqm	31.42	228.86	7190.64
	Scaffolding @ of shuttering	25%			1797.66
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	41287.38

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	4.00	400.00	1600.00
	for conveying concrete	Day	15.71	400.00	6284.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	31.42	99.60	3129.43
	Labour cost for scaffolding @	25%			782.36
Total cost of Labour				Rs:	22752.24

labour component/unit qty	1448.30
Add contractor's profit and overhead charges	13.615% 197.20
labour component/unit qty (including contractor's profit)	1645.50

ABSTRACT:

A. Cost of Materials		Rs:	41287.38
B. Hire charges of Machinery		Rs:	2225.75
C. Cost of Labour		Rs:	22752.24
	Total	Rs:	66265.37
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	9022.03
Total cost for	15.71 cum	Rs:	75287.402
Rate per cum	(A+B+C+D)/15.71	Rs.	4792.30

IRR-CCDW-2-11 Providing and **laying insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for sub-structure / super- structure works** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSISUNIT : **18.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3960.00	3.88	15372.72
	Cement for incidentals @ 5 kg / cum	kg	90.00	3.88	349.38
2	Coarse aggregate 20-10 mm	cum	9.36	1182.00	11063.52
	Coarse aggregate 10 mm below	cum	5.04	860.00	4334.40
3	Fine aggregate (Un-Screened)	cum	8.10	100.00	810.00
4	Super Plasticizer	kg	15.84	43.00	681.12
5	Use rate of shuttering for 40 uses	sqm	36.00	228.86	8238.80
	Scaffolding @ of shuttering	25%			2059.70
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	42925.14

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
4	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	2225.75

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Crew for Vibrator	Hour	8.00	174.10	1392.80
5	Mason Class-I	Day	1.00	475.00	475.00
6	work inspector	Day	1.00	500.00	500.00
7	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	4.00	400.00	1600.00
	for conveying concrete	Day	18.00	400.00	7200.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
8	Labour cost for shuttering	sqm	36.00	99.60	3585.60
	Labour cost for scaffolding @	25%			896.40
Total cost of Labour				Rs:	24238.45

labour component/unit qty 1346.60

Add contractor's profit and overhead charges 13.615% 183.30

labour component/unit qty (including contractor's profit) **1529.90****ABSTRACT:**

A. Cost of Materials Rs: 42925.14

B. Hire charges of Machinery Rs: 2225.75

C. Cost of Labour Rs: 24238.45

Total Rs: 69389.34

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 9447.36

Total cost for 18.00 cum Rs: **78836.702****Rate per cum** (A+B+C+D)/18.0 Rs: **4379.80**

IRR-CCDW-2-12 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for well kerb** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**

Note: If water is to be brought from other place add only lead charges @ 500 ltr / cum.
(Cement content: 350 kg / cum with use of super plasticiser(0.4% by wt. of cement),

CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSIS

UNIT : 15.00 cum

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5250.00	3.88	20380.50
2	Coarse aggregate 20-10 mm	cum	7.80	1182.00	9219.60
	Coarse aggregate 10 mm below	cum	4.20	860.00	3612.00
3	Fine aggregate (Un-Screened)	cum	6.75	100.00	675.00
4	Super Plasticizer	kg	21.00	43.00	903.00
5	Use rate of curved shutter (40 uses)	sqm	82.50	251.74	20768.64
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	55574.24

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.00	400.00	6000.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	82.50	99.60	8217.00
Total cost of Labour				Rs:	26180.35

labour component/unit qty 1745.40

Add contractor's profit and overhead charges 13.615% 237.60

labour component/unit qty (including contractor's profit) **1983.00**

ABSTRACT:

A. Cost of Materials	Rs:	55574.24
B. Hire charges of Machinery	Rs:	1473.05
C. Cost of Labour	Rs:	26180.35
	Total	Rs: 83227.64
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	11331.44
Total cost for	15.00 cum	Rs: 94559.085
Rate per cum	(A+B+C+D)/15.0	Rs. 6303.90

IRR-CCDW-2-13 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **for well steining** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 320 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSISUNIT : **15.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4800.00	3.88	18633.60
	Cement for incidentals @ 2 kg / cum	kg	30.00	3.88	116.46
2	Coarse aggregate 40-20 mm	cum	6.75	1133.00	7647.75
	Coarse aggregate 20-10 mm	cum	4.05	1182.00	4787.10
	Coarse aggregate 10 mm below	cum	2.70	860.00	2322.00
3	Fine aggregate (Un-Screened)	cum	6.00	100.00	600.00
4	Super Plasticizer	kg	19.20	43.00	825.60
5	Use rate of curved shutter (40 uses)	sqm	60.00	251.74	15104.47
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	50052.48

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.00	400.00	6000.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	60.00	99.60	5976.00
Total cost of Labour				Rs:	23939.35

labour component/unit qty	1596.00
Add contractor's profit and overhead charges	13.615% 217.30
labour component/unit qty (including contractor's profit)	1813.30

ABSTRACT:

A. Cost of Materials	Rs:	50052.48
B. Hire charges of Machinery	Rs:	1473.05
C. Cost of Labour	Rs:	23939.35
	Total	Rs: 75464.88
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	10274.54
Total cost for	15.00 cum	Rs: 85739.42
Rate per cum	(A+B+C+D)/15.0	Rs. 5716.00

IRR-CCDW-2-14 Providing and **laying insitu M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for well bottom plug by tremie or skip box method** including cost of all materials, machinery, labour, batching, mixing, placing in position as per detailed specifications etc., **complete with initial lead upto 50 m and all lifts. (Cement content : 350 kg / cum)** (Cement content: 350 kg / cum with use of super plasticiser(0.4% by wt. of cement), CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSISUNIT : **14.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4900.00	3.88	19021.80
2	Coarse aggregate 20-10 mm	cum	7.28	1182.00	8604.96
	Coarse aggregate 10 mm below	cum	3.92	860.00	3371.20
3	Fine aggregate (Un-Screened)	cum	6.30	100.00	630.00
4	Super Plasticizer	kg	19.60	43.00	842.80
TOTAL				Rs:	32470.76
Add for tremie arrangement @				1%	Rs: 324.71
Total cost of Materials				Rs:	32795.47

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Sundries(Hopper etc.)	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	1392.85

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Fitter shuttering	Day	1.00	440.00	440.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor				
	for erecting/ dismantling tremie	Day	4.00	400.00	1600.00
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for feeding tremie hopper	Day	2.00	400.00	800.00
	for conveying concrete	Day	16.00	400.00	6400.00
Total cost of Labour				Rs:	17735.55

labour component/unit qty 1266.80

Add contractor's profit and overhead charges 13.615% 172.50

labour component/unit qty (including contractor's profit) **1439.30****ABSTRACT:**

A. Cost of Materials Rs: 32795.47

B. Hire charges of Machinery Rs: 1392.85

C. Cost of Labour Rs: 17735.55

Total Rs: 51923.87

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 7069.43

Total cost for 14.00 cum Rs: **58993.30****Rate per cum** (A+B+C+D)/14.0 Rs: **4213.80**

IRR-CCDW-2-15 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **for well top plug** including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with **initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 280 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

DATA:

RATE ANALYSISUNIT : **14.29 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4001.20	3.88	15532.66
2	Coarse aggregate 40-20 mm	cum	6.43	1133.00	7285.76
	Coarse aggregate 20-10 mm	cum	3.86	1182.00	4560.51
	Coarse aggregate 10 mm below	cum	2.57	860.00	2212.09
3	Fine aggregate (Un-Screened)	cum	5.72	100.00	571.60
4	Super Plasticizer	kg	16.00	43.00	688.21
Total cost of Materials				Rs:	30850.82

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.29	400.00	5716.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
Total cost of Labour				Rs:	17679.35

labour component/unit qty 1237.20

Add contractor's profit and overhead charges 13.615% 168.40

labour component/unit qty (including contractor's profit) **1405.60****ABSTRACT:**

A. Cost of Materials	Rs:	30850.82
B. Hire charges of Machinery	Rs:	1473.05
C. Cost of Labour	Rs:	17679.35
Total	Rs:	50003.22
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	6807.94
Total cost for	14.29 cum Rs:	56811.16
Rate per cum	(A+B+C+D)/14.29 Rs.	3975.60

IRR-CCDW-2-16 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for well cap** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA-65:35, FA : 0.45 cum)

DATA: **RATE ANALYSIS** UNIT : **15.76 cum**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.80	3.88	20189.51
	Cement for incidentals @ 5 kg / cum	kg	78.80	3.88	305.90
2	Coarse aggregate 20-10 mm	cum	8.20	1182.00	9686.73
	Coarse aggregate 10 mm below	cum	4.41	860.00	3795.01
3	Fine aggregate (Un-Screened)	cum	7.09	100.00	709.20
4	Super Plasticizer	kg	20.80	43.00	894.54
5	Use rate of curved shutter (40 uses)	sqm	15.76	228.86	3606.76
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	39203.14

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60

Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery			Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.76	400.00	6304.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	15.76	99.60	1569.70
Total cost of Labour				Rs:	19837.05

labour component/unit qty 1258.70

Add contractor's profit and overhead charges 13.615% 171.40

labour component/unit qty (including contractor's profit) **1430.10****ABSTRACT:**

A. Cost of Materials	Rs:	39203.14
B. Hire charges of Machinery	Rs:	1473.05
C. Cost of Labour	Rs:	19837.05

Total Rs: **60513.24**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 8238.88

Total cost for 15.76 cum Rs: **68752.12****Rate per cum** (A+B+C+D)/15.76 Rs: **4362.40**

IRR-CCDW-2-17 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates **for piers and abutments** including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 250 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum)

DATA: **RATE ANALYSIS** UNIT : **14.40 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3600.00	3.88	13975.20
	Cement for incidentals @ 5 kg / cum	kg	72.00	3.88	279.50
2	Coarse aggregate 80-40 mm	cum	4.94	622.00	3072.18
	Coarse aggregate 40-20 mm	cum	4.23	1133.00	4796.67
	Coarse aggregate 20-10 mm	cum	2.82	1182.00	3336.08
	Coarse aggregate 10 mm below	cum	2.12	860.00	1820.45
3	Fine aggregate (Un-Screened)	cum	5.04	100.00	504.00
4	Super Plasticizer	kg	14.40	43.00	619.20
5	Use rate of shuttering for 40 uses	sqm	39.60	240.30	9515.82
6	Scaffolding @ of shuttering	30%			2854.74
Total cost of Materials				Rs:	40773.84

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	8.00	75.40	603.20
	Fuel / Energy charges	Hour	8.00	208.30	1666.40
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 60 mm dia (petrol)	Hour	8.00	6.70	53.60
	Fuel / Energy charges	Hour	8.00	34.80	278.40
Total hire charges of Machinery				Rs:	2657.85

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	6.00	400.00	2400.00
	for conveying concrete	Day	14.40	400.00	5760.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	39.60	99.60	3944.16
	Labour cost for scaffolding @ 30%				1183.25
Total cost of Labour				Rs:	24050.76

labour component/unit qty 1670.20

Add contractor's profit and overhead charges 13.615% 227.40

labour component/unit qty (including contractor's profit) **1897.60****ABSTRACT:**

A. Cost of Materials Rs: 40773.84

B. Hire charges of Machinery Rs: 2657.85

C. Cost of Labour Rs: 24050.76

Total Rs: 67482.45

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 9187.74

Total cost for 14.40 cum Rs: **76670.188****Rate per cum (A+B+C+D)/14.40 Rs. 5324.30**

IRR-CCDW-2-18 Providing and **laying insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates **for piers and abutments** including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.98cum, Blending Ratio of CA--35:30:20:15, FA : 0.35 cum)

DATA:

RATE ANALYSISUNIT : **14.55 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3201.00	3.88	12426.28
	Cement for incidentals @ 5 kg / cum	kg	72.75	3.88	282.42
2	Coarse aggregate 80-40 mm	cum	4.99	622.00	3104.18
	Coarse aggregate 40-20 mm	cum	4.28	1133.00	4846.63
	Coarse aggregate 20-10 mm	cum	2.85	1182.00	3370.83
	Coarse aggregate 10 mm below	cum	2.14	860.00	1839.41
3	Fine aggregate (Un-Screened)	cum	5.09	100.00	509.25
4	Super Plasticizer	kg	12.80	43.00	550.57
5	Use rate of shuttering for 40 uses	sqm	40.01	240.30	9614.94
6	Scaffolding @ of shuttering	30%			2884.48
Total cost of Materials				Rs:	39429.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	8.00	75.40	603.20
	Fuel / Energy charges	Hour	8.00	208.30	1666.40
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 60 mm dia (petrol)	Hour	8.00	6.70	53.60
	Fuel / Energy charges	Hour	8.00	34.80	278.40
Total hire charges of Machinery				Rs:	2657.85

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	6.00	400.00	2400.00
	for conveying concrete	Day	14.55	400.00	5820.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	40.01	99.60	3985.25
	Labour cost for scaffolding @ 30%				1195.57
Total cost of Labour				Rs:	24164.17

labour component/unit qty 1660.80

Add contractor's profit and overhead charges 13.615% 226.10

labour component/unit qty (including contractor's profit) **1886.90****ABSTRACT:**

A. Cost of Materials Rs: 39429.00

B. Hire charges of Machinery Rs: 2657.85

C. Cost of Labour Rs: 24164.17

Total Rs: **66251.02**

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 9020.08

Total cost for 14.55 cum Rs: **75271.10****Rate per cum (A+B+C+D)/14.55 Rs. **5173.30****

IRR-CCDW-2-19 Providing and **laying insitu vibrated M-10** (28 days cube compressive strength not less than 10 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **for piers and abutments** including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing **etc., complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.****(Cement content: 220 kg / cum with use of super plasticiser(0.4% by wt. of cement),****CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)**

DATA:

RATE ANALYSISUNIT : **16.36 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3599.20	3.88	13972.09
	Cement for incidentals @ 5 kg / cum	kg	81.80	3.88	317.55
2	Coarse aggregate 40-20 mm	cum	7.36	1133.00	8341.15
	Coarse aggregate 20-10 mm	cum	4.42	1182.00	5221.13
	Coarse aggregate 10 mm below	cum	2.94	860.00	2532.53
3	Fine aggregate (Un-Screened)	cum	6.54	100.00	654.40
4	Super Plasticizer	kg	14.40	43.00	619.06
5	Use rate of shuttering for 40 uses	sqm	44.99	240.30	10811.02
6	Scaffolding @ of shuttering	30%			3243.31
Total cost of Materials				Rs:	45712.24

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	5.00	400.00	2000.00
	for conveying concrete	Day	16.36	400.00	6544.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	44.99	99.60	4481.00
	Labour cost for scaffolding @ 30%				1344.30
Total cost of Labour				Rs:	25132.66

labour component/unit qty 1536.20

Add contractor's profit and overhead charges 13.615% 209.20

labour component/unit qty (including contractor's profit) **1745.40****ABSTRACT:**

A. Cost of Materials Rs: 45712.24

B. Hire charges of Machinery Rs: 1473.05

C. Cost of Labour Rs: 25132.66

Total Rs: 72317.94

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 9846.09

Total cost for 16.36 cum Rs: **82164.03****Rate per cum (A+B+C+D)/16.36 Rs. 5022.30**

IRR-CCDW-2-20 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **for cantiliver / counterfort retaining walls** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**
(Cement content: 320 kg / cum with use of super plasticiser(0.4% by wt. of cement), CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)

Note: If water is to be brought from other place add only lead charges @ 500 ltr / cum.

DATA:

RATE ANALYSISUNIT : **16.25 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.00	3.88	20186.40
	Cement for incidentals @ 5 kg / cum	kg	81.25	3.88	315.41
2	Coarse aggregate 40-20 mm	cum	7.31	1133.00	8285.06
	Coarse aggregate 20-10 mm	cum	4.39	1182.00	5186.03
	Coarse aggregate 10 mm below	cum	2.93	860.00	2515.50
3	Fine aggregate (Un-Screened)	cum	6.50	100.00	650.00
4	Super Plasticizer	kg	20.80	43.00	894.40
5	Use rate of shuttering for 40 uses	sqm	52.81	228.86	12086.44
	Scaffolding @ of shuttering	25%			3021.61
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	53156.34

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	5.00	400.00	2000.00
	for conveying concrete	Day	16.25	400.00	6500.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	52.81	99.60	5260.13
	Labour cost for scaffolding @	25%			1315.03
Total cost of Labour				Rs:	25838.51

labour component/unit qty 1590.10

Add contractor's profit and overhead charges 13.615% 216.50

labour component/unit qty (including contractor's profit) **1806.60****ABSTRACT:**

A. Cost of Materials		Rs:	53156.34
B. Hire charges of Machinery		Rs:	1473.05
C. Cost of Labour		Rs:	25838.51
	Total	Rs:	80467.90
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	10955.7
Total cost for	16.25 cum	Rs:	91423.60
Rate per cum	(A+B+C+D)/16.25	Rs.	5626.10

IRR-CCDW-2-21 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard, graded aggregates **with placing and sinking plums of size 150 to 80 mm upto 15 percent for gravity type retaining walls / piers / abutments** etc., including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc.,complete **with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 260 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.765cum, Blending Ratio of CA--50:30:20, FA : 0.34 cum,
plums of size 150 to 80 mm : 0.25cum)

DATA: **RATE ANALYSIS** UNIT : **18.09 cum**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4703.40	3.88	18258.60
	Cement for incidentals @ 4 kg / cum	kg	72.36	3.88	280.90
2	Coarse aggregate 40-20 mm	cum	6.92	1133.00	7839.71
	Coarse aggregate 20-10 mm	cum	4.15	1182.00	4907.26
	Coarse aggregate 10 mm below	cum	2.77	860.00	2380.28
3	Plums of size 150 to 80 mm	cum	4.52	333.00	1505.99
4	Fine aggregate (Un-Screened)	cum	6.15	100.00	615.06
5	Super Plasticizer	kg	18.81	43.00	808.98
	Use rate of shuttering for 40 uses	sqm	49.75	228.86	11384.99
6	Scaffolding @ of shuttering	30%			3415.50
Total cost of Materials				Rs:	51397.28

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 60 mm dia (petrol)	Hour	8.00	6.70	53.60
	Fuel / Energy charges	Hour	8.00	34.80	278.40
Total hire charges of Machinery				Rs:	1569.85

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	5.00	400.00	2000.00
	for placing plums	Day	2.00	400.00	800.00
	for conveying concrete	Day	15.38	400.00	6152.00
	for conveying plums	Day	2.00	400.00	800.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour for shuttering	sqm	49.75	99.60	4954.85
	Labour for scaffolding @	30%			1486.46
Total cost of Labour				Rs:	26956.66

labour component/unit qty

1490.10

Add contractor's profit and overhead charges

13.615% 202.90

labour component/unit qty (including contractor's profit)

1693.00**ABSTRACT:**

A. Cost of Materials

Rs: 51397.28

B. Hire charges of Machinery

Rs: 1569.85

C. Cost of Labour

Rs: 26956.66

Total Rs: 79923.78

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs: 10881.62

Total cost for

18.09 cum Rs: 90805.40

Rate per cum(A+B+C+D)/18.09 Rs: **5019.60**

IRR-CCDW-2-22 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **40 mm down size** approved, clean, hard,graded aggregates **for cast in-situ pipes** including cost of all materials, machinery, labour, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with **initial lead upto 50 m and all lifts.**

Note:

If water is to be brought from other place add only lead charges @ 500 ltr / cum.**(Cement content: 260 kg / cum with use of super plasticiser(0.4% by wt. of cement),****CA : 0.90cum, Blending Ratio of CA--50:30:20, FA : 0.40 cum)**

DATA:

RATE ANALYSISUNIT : **15.38 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3998.80	3.88	15523.34
	Cement for incidentals @ 5 kg / cum	kg	76.90	3.88	298.53
2	Coarse aggregate 40-20 mm	cum	6.92	1133.00	7841.49
	Coarse aggregate 20-10 mm	cum	4.15	1182.00	4908.37
	Coarse aggregate 10 mm below	cum	2.77	860.00	2380.82
3	Fine aggregate (Un-Screened)	cum	6.15	100.00	615.20
4	Super Plasticizer	kg	16.00	43.00	687.79
5	Use rate of shuttering for 40 uses	sqm	30.76	240.30	7391.58
	Scaffolding @ of shuttering	15%			1108.74
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	40771.37

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.38	400.00	6152.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour for shuttering	sqm	30.76	99.60	3063.70
	Labour for scaffolding @	15%			459.55
Total cost of Labour				Rs:	21638.60

labour component/unit qty	1406.90
Add contractor's profit and overhead charges	13.615% 191.50
labour component/unit qty (including contractor's profit)	1598.40

ABSTRACT:

A. Cost of Materials	Rs:	40771.37
B. Hire charges of Machinery	Rs:	1473.05
C. Cost of Labour	Rs:	21638.60
	Total Rs:	63883.02
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	8697.67
Total cost for	15.38 cum Rs:	72580.69
Rate per cum	(A+B+C+D)/15.38 Rs.	4719.20

IRR-CCDW-2-23 Providing and **laying insitu vibrated M-15** (28 days cube compressive strength not less than 15 N / sq mm) grade cement concrete using **80 mm down size** approved, clean, hard, graded aggregates **for cast in-situ pipes** including cost of all materials, labour, machinery, formwork, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 250 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.98cum, Blending Ratio of CA-35:30:20:15, FA : 0.35 cum)

DATA:

RATE ANALYSISUNIT : **14.40 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	3600.00	3.88	13975.20
	Cement for incidentals @ 5 kg / cum	kg	72.00	3.88	279.50
2	Coarse aggregate 80-40 mm	cum	4.94	622.00	3072.18
	Coarse aggregate 40-20 mm	cum	4.23	1133.00	4796.67
	Coarse aggregate 20-10 mm	cum	2.82	1182.00	3336.08
	Coarse aggregate 10 mm below	cum	2.12	860.00	1820.45
3	Fine aggregate (Un-Screened)	cum	5.04	100.00	504.00
4	Super Plasticizer	kg	14.40	43.00	619.20
5	Use rate of shuttering for 40 uses	sqm	28.80	240.30	6920.59
6	Scaffolding @ of shuttering	15%			1038.09
Total cost of Materials				Rs:	36361.96

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 600/400 ltr (diesel)	Hour	8.00	75.40	603.20
	Fuel / Energy charges	Hour	8.00	208.30	1666.40
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 60 mm dia (petrol)	Hour	8.00	6.70	53.60
	Fuel / Energy charges	Hour	8.00	34.80	278.40

Total hire charges of Machinery	Rs:	2657.85
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C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.40	400.00	5760.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	28.80	99.60	2868.48
	Labour cost for scaffolding @	15%			430.27
Total cost of Labour				Rs:	21022.10

labour component/unit qty 1459.90

Add contractor's profit and overhead charges 13.615% 198.80

labour component/unit qty (including contractor's profit) **1658.70****ABSTRACT:**

A. Cost of Materials Rs: 36361.96

B. Hire charges of Machinery Rs: 2657.85

C. Cost of Labour Rs: 21022.10

Total Rs: 60041.91

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 8174.71

Total cost for 14.40 cum Rs: **68216.62****Rate per cum** (A+B+C+D)/14.40 Rs. **4737.30**

IRR-CCDW-2-24 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for deck slab & kerb** including cost of all materials,machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA:

RATE ANALYSISUNIT : **15.76 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.80	3.88	20189.51
	Cement for incidentals @ 5 kg / cum	kg	78.80	3.88	305.90
2	Coarse aggregate 20-10 mm	cum	8.20	1182.00	9686.73
	Coarse aggregate 10 mm below	cum	4.41	860.00	3795.01
3	Fine aggregate (Un-Screened)	cum	7.09	100.00	709.20
4	Super Plasticizer	kg	20.80	43.00	894.54
5	Use rate of shuttering for 30 uses	sqm	39.40	281.54	11092.71
	Scaffolding @ of shuttering	250%			27731.77
6	Sundries	LS	1.00	31.00	31.00
Total cost of Materials				Rs:	74436.35

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	2.00	475.00	950.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	4.00	400.00	1600.00
	for conveying concrete	Day	15.76	400.00	6304.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	39.40	99.60	3924.24
	Labour cost for scaffolding @ 250%				9810.60
Total cost of Labour				Rs:	32877.19

labour component/unit qty 2086.10

Add contractor's profit and overhead charges 13.615% 284.00

labour component/unit qty (including contractor's profit) **2370.10****ABSTRACT:**

A. Cost of Materials Rs: 74436.35

B. Hire charges of Machinery Rs: 1473.05

C. Cost of Labour Rs: 32877.19

Total Rs: 108786.59

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 14811.29

Total cost for 15.76 cum Rs: **123597.88****Rate per cum (A+B+C+D)/15.76 Rs. 7842.50**

IRR-CCDW-2-25 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for columns and beams** including cost of all materials, labour, machinery, formwork, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, **finishing, curing etc., complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum.**
(Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement),
CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)

DATA: **RATE ANALYSIS UNIT : 15.76 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.80	3.88	20189.51
	Cement for incidentals @ 5 kg / cum	kg	78.80	3.88	305.90
2	Coarse aggregate 20-10 mm	cum	8.20	1182.00	9686.73
	Coarse aggregate 10 mm below	cum	4.41	860.00	3795.01
3	Fine aggregate (Un-Screened)	cum	7.09	100.00	709.20
4	Super Plasticizer	kg	20.80	43.00	894.54
5	Use rate of shuttering	sqm	78.80	228.86	18033.82
	Scaffolding @ of shuttering	50%			9016.91
6	Sundries	LS	1.00	31.00	31.00
Total cost of Materials				Rs:	62662.61

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	3.00	400.00	1200.00
	for conveying concrete	Day	15.76	400.00	6304.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	78.80	99.60	7848.48
	Labour cost for scaffolding @ 50%				3924.24
Total cost of Labour				Rs:	30040.07

labour component/unit qty 1906.10

Add contractor's profit and overhead charges 13.615% 259.50

labour component/unit qty (including contractor's profit) **2165.60****ABSTRACT:**

A. Cost of Materials Rs: 62662.61

B. Hire charges of Machinery Rs: 1473.05

C. Cost of Labour Rs: 30040.07

Total Rs: 94175.73

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 12822.03

Total cost for 15.76 cum Rs: **106997.76****Rate per cum** (A+B+C+D)/15.76 Rs. **6789.20**

IRR-CCDW-2-26 Providing and **laying insitu M- 20** (28 days cube compressive strength not less than 20 N / sqmm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for wearing coat** including cost of all materials, machinery, labour, formwork, cleaning, batching, mixing, placing in position in alternate panels, levelling, compacting, finishing, curing, packing joints with asphalt mortar etc., complete **with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum. to the data (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement), CA : 0.80cum, Blending Ratio of CA--65:35, FA : 0.45 cum)**

DATA:

RATE ANALYSISUNIT : **15.76 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.80	3.88	20189.51
	Cement for incidentals @ 5 kg / cum	kg	78.80	3.88	305.90
2	Coarse aggregate 20-10 mm	cum	8.20	1182.00	9686.73
	Coarse aggregate 10 mm below	cum	4.41	860.00	3795.01
3	Fine aggregate (Un-Screened)	cum	7.09	100.00	709.20
4	Super Plasticizer	kg	20.80	43.00	894.54
5	Use rate of shuttering	sqm	7.88	228.86	1803.38
6	Sundries (asphalt mortar etc)	LS	5.00	31.00	155.00
Total cost of Materials				Rs:	37539.26

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (petrol)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	2.00	475.00	950.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	4.00	400.00	1600.00
	for conveying concrete	Day	15.76	400.00	6304.00
	for cleaning/ washing/ curing	Day	2.00	400.00	800.00
7	Labour cost for shuttering	sqm	7.88	99.60	784.85
Total cost of Labour				Rs:	20327.20

labour component/unit qty 1289.80

Add contractor's profit and overhead charges 13.615% 175.60

labour component/unit qty (including contractor's profit) **1465.40****ABSTRACT:**

A. Cost of Materials	Rs:	37539.26
B. Hire charges of Machinery	Rs:	1473.05
C. Cost of Labour	Rs:	20327.20
	Total Rs:	59339.51
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	8079.07
Total cost for	15.76 cum Rs:	67418.58
Rate per cum	(A+B+C+D)/15.76 Rs.	4277.80

IRR-CCDW-2-27 Providing and **laying insitu vibrated M-20** (28 days cube compressive strength not less than 20 N / sq mm) grade cement concrete using **20 mm down size** approved, clean, hard, graded aggregates **for troughs** including cost of all materials, machinery, labour, formwork, scaffolding, cleaning, batching, mixing, placing in position,levelling, vibrating, finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

Note: **If water is to be brought from other place add only lead charges @ 500 ltr / cum. to the data (Cement content: 330 kg / cum with use of super plasticiser(0.4% by wt. of cement), CA : 0.80cum, Blending Ratio of CA-65:35, FA : 0.45 cum)**

DATA: **RATE ANALYSIS** UNIT : **15.76 cum**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	5200.80	3.88	20189.51
	Cement for incidentals @ 5 kg / cum	kg	78.80	3.88	305.90
2	Coarse aggregate 20-10 mm	cum	8.20	1182.00	9686.73
	Coarse aggregate 10 mm below	cum	4.41	860.00	3795.01
3	Fine aggregate (Un-Screened)	cum	7.09	100.00	709.20
4	Super Plasticizer	kg	20.80	43.00	894.54
5	Use rate of shuttering for 40 uses	sqm	70.92	228.86	16230.44
	Scaffolding @ of shuttering	25%			4057.61
6	Sundries	LS	0.50	31.00	15.50
Total cost of Materials				Rs:	55884.43

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Needle vibrator 40 mm dia (diesel)	Hour	8.00	6.20	49.60
	Fuel / Energy charges	Hour	8.00	23.20	185.60
Total hire charges of Machinery				Rs:	1473.05

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Needle vibrator	Hour	8.00	174.10	1392.80
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying	Day	5.00	400.00	2000.00
	for conveying concrete	Day	15.76	400.00	6304.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering	sqm	70.92	99.60	7063.63
	Labour cost for scaffolding @	25%			1765.91
Total cost of Labour				Rs:	27896.89

labour component/unit qty 1770.10

Add contractor's profit and overhead charges 13.615% 241.00

labour component/unit qty (including contractor's profit) **2011.10****ABSTRACT:**

A. Cost of Materials Rs: 55884.43

B. Hire charges of Machinery Rs: 1473.05

C. Cost of Labour Rs: 27896.89

Total Rs: 85254.37

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 11607.38

Total cost for 15.76 cum Rs: 96861.75

Rate per cum (A+B+C+D)/15.76 Rs. 6146.00**IRR-CCDW-3 FOUNDATION WELL SINKING WORKS :****IRR-CCDW-3-1 Sinking RCC wells vertically for foundation of piers and abutments in all kinds of soil, sand**

DATA: Unit = Running meter

Taking output = 1m

diameter of well = 6.00m

(i) Depth below bed level upto 3.0m

Rate of sinking = 0.50 m /hour

a) Labour

0.12 Mate (Mason Cl- II) 440.00 day 52.80

1.00 Sinker (skilled) 475.00 day 475.00

2.00 Sinking helper (Semi skilled) 400.00 day 800.00

sub total (a) 1327.80

b) Machinery

2.00 Hire & running charges of crane with grab 422.80 hour 845.60

bucket of 0.75 cum capacity and accessories.

Fuel Charges 393.70 hour 787.40

Crew Charges 193.10 hour 386.20

Consumables in sinking @ 10% of machinery charges 201.92

sub total (b) 2221.12

sub total (a+b) 3548.92

c) Add for Contractor's profit and overhead

charges on (A+B) 13.615% 483.19

Rate per metre = (a+b+c)/1.0 4032.11or say (Rate upto 3.0m for 6.0 m well sinking) **4032.10**

labour component/unit qty 1714.00

Contractor's profit and overhead charges 13.615% 233.40

labour component/unit qty(including contractor's profit) **1947.40**

- (ii) Beyond 3m and upto 10m depth
Rate of sinking = 0.33 m per hour.

a) Labour

0.15 Mate (Mason Cl- II)	440.00 day	66.00
1.25 Sinker (skilled)	475.00 day	593.75
2.50 Sinking helper (Semi skilled)	400.00 day	1000.00
sub total (a)		1659.75

b) Machinery

3.00 Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	422.80 hour	1268.40
Fuel Charges	393.70 hour	1181.10
Crew Charges	193.10 hour	579.30
Consumables in sinking @ 10% of machinery charges		302.88
sub total (b)		3331.68
sub total (a+b)		4991.43

c) Add for Contractor's profit and overhead charges on (A+B)	13.615%	679.58
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Rate per metre = (a+b+c)5671.01

or say (Rate for 3.0m to 10m well sinking)

5671.00

labour component/unit qty		2239.10
Contractor's profit and overhead charges	13.615%	304.90
labour component/unit qty(including contractor's profit)		<u>2544.00</u>

IRR-CCDW-3-2 **Filling foundation wells with sand in layers of 25 to 30 cm** and compacting by watering, ramming as directed including cost of all materials, machinery, labour etc., complete with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSISUNIT : **15.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand for filling	cum	15.75	100.00	1575.00
				0.00	0.00
Total cost of Materials				Rs:	1575.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
				0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	1725.00

labour component/unit qty		115.00
Add contractor's profit and overhead charges	13.615%	15.70
labour component/unit qty (including contractor's profit)		<u>130.70</u>

ABSTRACT:

A. Cost of Materials	Rs:	1575.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1725.00
Total	Rs:	<u>3300.00</u>

D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	449.3
Total cost for	15.00 cum	Rs:	3749.3
Rate per cum	(A+B+C+D)/15.0	Rs:	250.00

IRR-CCDW-4 **MASONRY WORKS :**

IRR-CCDW-4-1 Providing and **constructing un-coursed rubble stone masonry** with approved stones in **CM 1 : 4** proportion for sub-structure portions of return walls / abutments etc., including cost of all materials, machinery, labour, scaffolding, cleaning, packing cement mortar, wedging stone chips, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 143 kg / cum of masonry, rubble stones : 0.85cum, FA : 0.40 cum, Stone Chips : 0.15 cum)

DATA:

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	1430.00	3.88	5551.26
2	Rubble stones	cum	8.50	303.00	2575.50
3	Stone chips	cum	1.50	333.00	499.50
4	Sand (Screened)	cum	4.00	182.00	728.00
Total cost of Materials				Rs:	9354.26

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
Total hire charges of Machinery				Rs:	808.95

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Water tanker	Hour	1.00	193.10	193.10
2	Crew for Pump	Hour	0.50	122.30	61.15
3	work inspector	Day	1.00	500.00	500.00
4	Mason Class-I	Day	1.00	475.00	475.00
5	Mason Class-II	Day	2.00	440.00	880.00
6	mazdoor				
	for conveying rubble stones	Day	4.00	400.00	1600.00
	for preparing mortar	Day	2.00	400.00	800.00
	for loading mortar pans	Day	1.00	400.00	400.00
	for laying & packing mortar	Day	3.00	400.00	1200.00
	for washing rubble / finishing / curing	Day	1.00	400.00	400.00
	for conveying mortar / chips	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	8109.25

labour component/unit qty 810.90

Add contractor's profit and overhead charges 13.615% 110.40

labour component/unit qty (including contractor's profit) **921.30****ABSTRACT:**

A. Cost of Materials Rs: 9354.26

B. Hire charges of Machinery Rs: 808.95

C. Cost of Labour Rs: 8109.25

Total Rs: 18272.46

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 2487.8

Total cost for 10.00 cum Rs: **20760.26****Rate per cum** (A+B+C+D)/10.0 Rs. **2076.00**

IRR-CCDW-4-2

Providing and **constructing un-coursed rubble stone masonry** with approved stones in**CM 1 : 4** proportion for super-structure portions of return walls / abutments etc., includingcost of all materials, machinery, labour, scaffolding, cleaning, packing cement mortar, wedging stone chips, curing etc., complete **with initial lead upto 50 m and all lifts.****(Cement content: 143 kg / cum of masonry, rubble stones : 0.85cum, FA : 0.40 cum,****Stone Chips : 0.15 cum)**

DATA:

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	1430.00	3.88	5551.26
2	Rubble stones	cum	8.50	303.00	2575.50
3	Stone chips	cum	1.50	333.00	499.50
4	Sand (Screened)	cum	4.00	182.00	728.00
TOTAL				Rs:	9354.26
Add for scaffolding @ 2.5%				Rs:	233.86
Total cost of Materials				Rs:	9588.12

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
Total hire charges of Machinery				Rs:	808.95

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Water tanker	Hour	1.00	193.10	193.10
2	Crew for Pump	Hour	0.50	122.30	61.15
3	work inspector	Day	1.00	500.00	500.00
4	Mason Class-I	Day	1.00	475.00	475.00
5	Mason Class-II	Day	2.00	440.00	880.00
6	mazdoor				
	for conveying rubble stones	Day	4.00	400.00	1600.00
	for preparing mortar	Day	2.00	400.00	800.00
	for loading mortar pans	Day	1.00	400.00	400.00
	for laying & packing mortar	Day	3.00	400.00	1200.00
	for washing rubble / finishing / curing	Day	1.00	400.00	400.00
	for conveying mortar / chips	Day	4.00	400.00	1600.00
TOTAL				Rs:	8109.25
Add for labour for scaffolding @ 2.5%				Rs:	202.73
Total cost of Labour				Rs:	8311.98

labour component/unit qty	831.20
Add contractor's profit and overhead charges	13.615% 113.20
labour component/unit qty (including contractor's profit)	944.40

ABSTRACT:

A. Cost of Materials	Rs:	9588.12
B. Hire charges of Machinery	Rs:	808.95
C. Cost of Labour	Rs:	8311.98
	Total	Rs: 18709.05
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	2547.24
Total cost for	10.00 cum	Rs: 21256.29
Rate per cum	(A+B+C+D)/10.0	Rs. 2125.60

IRR-CCDW-4-3 Providing and **constructing coursed rubble masonry second sort** in **CM 1:4** proportion with stones from approved source including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, finishing, curing etc., complete with **initial lead upto 50 m and initial lift upto 3m.**

(Cement content: 133 kg / cum of masonry, rubble stones : 0.45cum, FA : 0.35 cum, Stone Chips : 0.15 cum, Khandki stones 25 x 25 x 30 cm : 180 Nos, Header stones 25 x 25x 45 cm : 60 Nos)

DATA:

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	1330.00	3.88	5163.06
2	Header stones 25x25x45 cm	Nos	60.00	37.00	2220.00
3	Khandki stones 25x25x30 cm	Nos	180.00	16.00	2880.00
4	Rubble stones	cum	4.50	303.00	1363.50
5	Stone chips	cum	1.50	333.00	499.50
6	Sand (Screened)	cum	3.50	182.00	637.00
TOTAL				Rs:	12763.06
Add for scaffolding materials @ 2.5%				Rs:	319.08
Total cost of Materials				Rs:	13082.14

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
Total hire charges of Machinery				Rs:	808.95

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Water tanker	Hour	1.00	193.10	193.10
2	Crew for Pump	Hour	0.50	122.30	61.15
3	work inspector	Day	1.00	500.00	500.00
4	Stone chiseller CI -II	Day	3.00	440.00	1320.00
5	Mason Class-I	Day	1.00	475.00	475.00
6	Mason Class-II	Day	2.00	440.00	880.00
7	mazdoor				
	for conveying stones / rubble	Day	4.00	400.00	1600.00
	for preparation of mortar	Day	3.00	400.00	1200.00
	for loading mortar pans	Day	1.00	400.00	400.00
	for laying & packing mortar	Day	3.00	400.00	1200.00
	for washing rubble / finishing / curing	Day	1.00	400.00	400.00
	for conveying mortar / chips	Day	2.00	400.00	800.00
TOTAL				Rs:	9029.25
Add for labour for scaffolding @ 2.5%				Rs:	225.73
Total cost of Labour				Rs:	9254.98

labour component/unit qty 925.50

Add contractor's profit and overhead charges 13.615% 126.00

labour component/unit qty (including contractor's profit) **1051.50****ABSTRACT:**

A. Cost of Materials	Rs:	13082.14
B. Hire charges of Machinery	Rs:	808.95
C. Cost of Labour	Rs:	9254.98
	Total Rs:	23146.07
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	3151.34
Total cost for	10.00 cum Rs:	26297.41
Rate per cum	(A+B+C+D)/10.0 Rs:	2629.70

IRR-CCDW-4-4 Providing and **constructing coursed rubble masonry first sort in CM 1:4** proportion with stones from approved source including cost of all materials, machinery, labour, scaffolding, ramps, cleaning, packing mortar, wedging stone chips, finishing, curing etc., complete with **initial lead upto 50 m and initial lift upto 3 m.**
(Cement content: 133 kg / cum of masonry, rubble stones : 0.45cum, FA : 0.35 cum, Stone Chips : 0.15 cum, Khandki stones 25 x 25 x 30 cm : 180 Nos, Header stones 25 x 25x 45 cm : 60 Nos)

DATA:

RATE ANALYSISUNIT : **10.00 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	1330.00	3.88	5163.06
2	Header stones 25x25x45 cm	Nos	60.00	37.00	2220.00
3	Khandki stones 25x25x30 cm	Nos	180.00	16.00	2880.00
4	Rubble stones	cum	4.50	303.00	1363.50
5	Stone chips	cum	1.50	333.00	499.50
6	Sand (Screened)	cum	3.50	182.00	637.00
TOTAL				Rs:	12763.06
Add for scaffolding materials @ 2.5%				Rs:	319.08
Total cost of Materials				Rs:	13082.14

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
Total hire charges of Machinery				Rs:	808.95

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Water tanker	Hour	1.00	193.10	193.10
2	Crew for Pump	Hour	0.50	122.30	61.15
3	work inspector	Day	1.00	500.00	500.00
4	Stone chiseller CI -II	Day	6.00	440.00	2640.00
5	Mason Class-I	Day	1.00	475.00	475.00
6	Mason Class-II	Day	2.00	440.00	880.00
7	mazdoor				
8	for conveying rubble/ stones	Day	4.00	400.00	1600.00
	for preparation of mortar	Day	3.00	400.00	1200.00
	for loading mortar pans	Day	1.00	400.00	400.00
	for laying & packing mortar	Day	3.00	400.00	1200.00
	for washing rubble / finishing / curing	Day	1.00	400.00	400.00
	for conveying mortar / chips	Day	2.00	400.00	800.00
TOTAL				Rs:	10349.25
Add for labour for scaffolding @ 2.5%				Rs:	258.73
Total cost of Labour				Rs:	10607.98

labour component/unit qty 1060.80

Add contractor's profit and overhead charges 13.615% 144.40

labour component/unit qty (including contractor's profit) **1205.20****ABSTRACT:**

A. Cost of Materials	Rs:	13082.14
B. Hire charges of Machinery	Rs:	808.95
C. Cost of Labour	Rs:	10607.98
	Total Rs:	24499.07
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	3335.55
Total cost for 10.00 cum	Rs:	27834.62
Rate per cum (A+B+C+D)/10.0	Rs.	2783.50

IRR-CCDW-4-5 Providing cement mortar pointing to coursed rubble face stone masonry in CM 1 : 2

proportion by volume including raking and cleaning joints for 50 mm depth, pressing cement mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSIS

UNIT : 100.00 sqm

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	456.00	3.88	1770.19
2	Sand (Screened)	cum	0.75	182.00	136.50
TOTAL				Rs:	1906.69
Add for scaffolding / ramps etc @ 2.5%				Rs:	47.67
Total cost of Materials				Rs:	1954.36

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- I	Day	10.00	475.00	4750.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour				Rs:	9250.00

labour component/unit qty 92.50

Add contractor's profit and overhead charges 13.615% 12.60

labour component/unit qty (including contractor's profit) **105.10****ABSTRACT:**

A. Cost of Materials	Rs:	1954.36
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	9250.00
	Total Rs:	11204.36
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	1525.47
Total cost for 100.00 sqm	Rs:	12729.83

Rate per sqm (A+B+C+D)/100.0 Rs. **127.30**

IRR-CCDW-4-6 **Providing cement mortar pointing to coursed rubble face stone masonry in CM 1 : 3**
proportion by volume including raking and cleaning joints for 50 mm depth, pressing cement mortar into joints, cost of all materials, labour, scaffolding, finishing, curing etc., complete with initial lead upto 50 m and all lifts.

DATA: **RATE ANALYSIS** UNIT : **100.00** sqm

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	322.00	3.88	1250.00
2	Sand (Screened)	cum	0.75	182.00	136.50
TOTAL				Rs:	1386.50
Add for scaffolding / ramps etc @				2.5%	Rs: 34.66
Total cost of Materials				Rs:	1421.17

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- I	Day	10.00	475.00	4750.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	10.00	400.00	4000.00
Total cost of Labour				Rs:	9250.00

labour component/unit qty 92.50
Add contractor's profit and overhead charges 13.615% 12.60
labour component/unit qty (including contractor's profit) **105.10**

ABSTRACT:

A. Cost of Materials Rs: 1421.17
B. Hire charges of Machinery Rs: 0.00
C. Cost of Labour Rs: 9250.00
Total Rs: 10671.17
D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 1452.88
Total cost for 100.00 sqm Rs: **12124.05**
Rate per sqm (A+B+C+D)/100.0 Rs. **121.20**

IRR-CCDW-4-7 **Providing 12 mm thick plastering in cement mortar 1:3** proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., complete with initial lead upto 50 m and all lifts.

DATA: **RATE ANALYSIS** UNIT : **100.00** sqm

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	629.00	3.88	2441.78
2	Sand (Screened)	cum	1.32	182.00	240.24
TOTAL				Rs:	2682.02
Add for scaffolding / ramps etc @				2.5%	Rs: 67.05
Total cost of Materials				Rs:	2749.07

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- I	Day	10.00	475.00	4750.00
2	work inspector	Day	1.00	500.00	500.00

3	mazdoor	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	13250.00

labour component/unit qty	132.50
Add contractor's profit and overhead charges	13.615% 18.00
labour component/unit qty (including contractor's profit)	<u>150.50</u>

ABSTRACT:

A. Cost of Materials		Rs:	2749.07
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	13250.00
	Total	Rs:	15999.07
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	2178.27
Total cost for	100.00 sqm	Rs:	18177.34
Rate per sqm	(A+B+C+D)/100.0	Rs.	181.80

IRR-CCDW-4-8 **Providing 12 mm thick plastering in cement mortar 1:4** proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **100.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	472.00	3.88	1832.30
2	Sand (Screened)	cum	1.32	182.00	240.24
TOTAL				Rs:	2072.54
Add for scaffolding / ramps etc @				2.5%	Rs: 51.81
Total cost of Materials				Rs:	2124.36

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- I	Day	10.00	475.00	4750.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	13250.00

labour component/unit qty	132.50
Add contractor's profit and overhead charges	13.615% 18.00
labour component/unit qty (including contractor's profit)	<u>150.50</u>

ABSTRACT:

A. Cost of Materials		Rs:	2124.36
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	13250.00
	Total	Rs:	15374.36
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	2093.22
Total cost for	100.00 sqm	Rs:	17467.578
Rate per sqm	(A+B+C+D)/100.0	Rs.	174.70

IRR-CCDW-4-9 **Providing 20 mm thick plastering in cement mortar 1:3** proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., **complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **100.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	1050.00	3.88	4076.10
2	Sand (Screened)	cum	2.20	182.00	400.40
TOTAL				Rs:	4476.50
Add for scaffolding / ramps etc @				2.5%	Rs: 111.91
Total cost of Materials				Rs:	4588.41

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- I	Day	15.00	475.00	7125.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	25.00	400.00	10000.00
Total cost of Labour				Rs:	17625.00

labour component/unit qty

176.30

Add contractor's profit and overhead charges

13.615% 24.00

labour component/unit qty (including contractor's profit)

200.30**ABSTRACT:**

A. Cost of Materials

Rs: 4588.41

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 17625.00

Total Rs: 22213.41

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs: 3024.36

Total cost for

100.00 sqm Rs: **25237.77****Rate per sqm**(A+B+C+D)/100.0 Rs. **252.40**

IRR-CCDW-4-10 **Providing 20 mm thick plastering in cement mortar 1:4 proportion by volume including cost of all materials, machinery, labour, scaffolding, cleaning joints, smooth finishing, curing etc., complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **100.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	788.00	3.88	3059.02
2	Sand (Screened)	cum	2.20	182.00	400.40
TOTAL				Rs:	3459.42
Add for scaffolding / ramps etc @				2.5%	Rs: 86.49
Total cost of Materials				Rs:	3545.90

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- I	Day	15.00	475.00	7125.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	25.00	400.00	10000.00
Total cost of Labour				Rs:	17625.00

labour component/unit qty

176.30

Add contractor's profit and overhead charges

13.615% 24.00

labour component/unit qty (including contractor's profit)

200.30**ABSTRACT:**

A. Cost of Materials

Rs: 3545.90

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 17625.00

Total Rs: 21170.90

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs: 2882.42

Total cost for

100.00 sqm Rs: **24053.321****Rate per sqm**(A+B+C+D)/100.0 Rs. **240.50**

IRR-CCDW-5 **COPING & RAILING WORKS :**

- IRR-CCDW-5-1 Providing and fixing **10 cm thick roughly dressed burnt stone slabs for coping** set in **CM 1: 6** proportion by volume with pointing to joints in CM 1 : 3 proportion by volume including cost of all materials, machinery, labour, finishing, curing etc., complete with initial lead upto **50 m and all lifts.**
(Cement content: 7.5 kg / sqm, FA : 0.030 cum/sqm, Burnt stone slab 10 cm thick 1.05 sqm/ sqm)

DATA: **RATE ANALYSIS** UNIT : **10.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	75.00	3.88	291.15
2	Sand (Screened)	cum	0.30	182.00	54.60
3	Burnt stone slab 10 cm thick	sqm	10.50	271.00	2845.50
Total cost of Materials				Rs:	3191.25

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	1.00	440.00	440.00
2	Stone chiseller CI- II	Day	1.00	440.00	440.00
3	work inspector	Day	0.50	500.00	250.00
4	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	1930.00

labour component/unit qty 193.00

Add contractor's profit and overhead charges 13.615% 26.30

labour component/unit qty (including contractor's profit) **219.30****ABSTRACT:**

A. Cost of Materials	Rs:	3191.25
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1930.00
	Total Rs:	5121.25
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	697.26
Total cost for 10.00 sqm	Rs:	5818.51
Rate per sqm (A+B+C+D)/10.0	Rs.	581.90

- IRR-CCDW-5-2 Providing and fixing **10 cm thick one line dressed burnt stone slabs for coping** set in **CM 1: 6** proportion by volume with pointing to joints in CM 1 : 3 proportion by volume including cost of all materials, machinery, labour, finishing, curing etc., complete with initial lead upto **50 m and all lifts.**
(Cement content: 7.5 kg / sqm, FA : 0.030 cum/sqm, Burnt stone slab 10 cm thick 1.05 sqm/ sqm)

DATA: **RATE ANALYSIS** UNIT : **10.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	75.00	3.88	291.15
2	Sand (Screened)	cum	0.30	182.00	54.60
3	Burnt stone slab 10 cm thick	sqm	10.50	271.00	2845.50
Total cost of Materials				Rs:	3191.25

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	1.00	440.00	440.00
2	Stone chiseller CI- I	Day	4.00	490.00	1960.00
3	work inspector	Day	0.50	500.00	250.00
4	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	3450.00

labour component/unit qty 345.00

Add contractor's profit and overhead charges 13.615% 47.00

labour component/unit qty (including contractor's profit) **392.00****ABSTRACT:**

A. Cost of Materials	Rs:	3191.25
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	3450.00
	Total	Rs: 6641.25
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	904.21
Total cost for	10.00 sqm	Rs: 7545.46
Rate per sqm	(A+B+C+D)/10.0	Rs. 754.50

IRR-CCDW-5-3 Providing and fixing **10 cm thick two line dressed burnt stone slabs for coping set in CM 1: 6** proportion by volume with pointing to joints in CM 1 : 3 proportion by volume including cost of all materials, machinery, labour, finishing, curing etc., complete with initial lead upto **50 m and all lifts.**
(Cement content: 7.5 kg / sqm, FA : 0.030 cum/sqm, Burnt stone slab 10 cm thick 1.05 sqm/ sqm)

DATA:

RATE ANALYSISUNIT : **10.00 sqm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	75.00	3.88	291.15
2	Sand (Screened)	cum	0.30	182.00	54.60
3	Burnt stone slab 10 cm thick	sqm	10.50	271.00	2845.50
Total cost of Materials				Rs:	3191.25

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	1.00	440.00	440.00
2	Stone chiseller CI-I	Day	8.00	490.00	3920.00
3	work inspector	Day	0.50	500.00	250.00
4	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	5410.00

labour component/unit qty 541.00

Add contractor's profit and overhead charges 13.615% 73.70

labour component/unit qty (including contractor's profit) **614.70****ABSTRACT:**

A. Cost of Materials	Rs:	3191.25
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	5410.00
	Total	Rs: 8601.25
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	1171.06
Total cost for	10.00 sqm	Rs: 9772.31
Rate per sqm	(A+B+C+D)/10.0	Rs. 977.20

IRR-CCDW-5-4 Providing and **laying insitu M-15** (28 days cube compressive strength not less than 15 N / sqmm) grade cement concrete using **20 mm down size** approved clean, hard, graded aggregates for coping slab including cost of all materials, machinery, labour, formwork, cleaning surface, batching, mixing, placing in position, levelling, compacting, finishing, curing etc., complete with initial lead upto 50 m and initial lift upto 3 m.
(Cement content: 300 kg / cum with use of super plasticiser(0.4% by wt. of cement), CA : 0.80cum, Blending Ratio of CA-65:35, FA : 0.45 cum)

DATA:

RATE ANALYSISUNIT : **14.67 cum****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement for mix	kg	4401.00	3.88	17084.68
	Cement for incidentals @ 5 kg / cum	kg	73.35	3.88	284.74
2	Coarse aggregate 20-10 mm	cum	7.63	1182.00	9016.77
	Coarse aggregate 10 mm below	cum	4.11	860.00	3532.54
3	Fine aggregate (Un-Screened)	cum	6.60	100.00	660.15
4	Super Plasticizer	kg	17.60	43.00	756.97
5	Use rate of shuttering	sqm	80.69	228.86	18465.21
6	Sundries	sqm	1.00	31.00	31.00
Total cost of Materials				Rs:	49832.07

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Concrete mixer 300/200 ltr (diesel)	Hour	8.00	43.50	348.00
	Fuel / Energy charges	Hour	8.00	104.20	833.60
2	5 hp pump (diesel)	Hour	0.50	8.30	4.15
	Fuel / Energy charges	Hour	0.50	104.20	52.10
3	Water tanker 8000 ltr	Hour	1.00	359.00	359.00
	Fuel / Energy charges	Hour	1.00	393.70	393.70
Total hire charges of Machinery				Rs:	1990.55

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Concrete mixer	Hour	8.00	241.80	1934.40
2	Crew for Pump	Hour	0.50	122.30	61.15
3	Crew for Water tanker	Hour	1.00	193.10	193.10
4	Mason Class-I	Day	1.00	475.00	475.00
5	work inspector	Day	1.00	500.00	500.00
6	mazdoor				
	for batching materials	Day	11.00	400.00	4400.00
	for loading mortar pans	Day	4.00	400.00	1600.00
	for laying and tamping	Day	3.00	400.00	1200.00
	for conveying concrete	Day	14.67	400.00	5868.00
	for cleaning/ washing/ curing	Day	1.00	400.00	400.00
7	Labour cost for shuttering/scaffolding	sqm	80.69	99.60	8036.23
Total cost of Labour				Rs:	24667.88

labour component/unit qty

1681.50

Add contractor's profit and overhead charges

13.615% 228.90

labour component/unit qty (including contractor's profit)

1910.40**ABSTRACT:**

A. Cost of Materials

Rs: 49832.07

B. Hire charges of Machinery

Rs: 1990.55

C. Cost of Labour

Rs: 24667.88

Total

Rs: 76490.49

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs:

10414.18

Total cost for

14.67 cum

Rs:

86904.67**Rate per cum**

(A+B+C+D)/14.67

Rs.

5924.00

IRR-CCDW-5-5 Providing and **constructing protective railing** consisting of in-situ railing posts of size 15 x 15 cm at bottom, 10 x 10 cm at top and 75 cm height at 2 m centre to centre in **M-20** grade concrete using **20 mm down size** graded aggregates and with each post reinforced by 4 Nos. of 8 mm dia main bars embedded in kerb concrete for a depth of 40 cm and 5 Nos. of 6 mm dia. stirrups including fixing 3 rows of 40 mm dia. GI pipes with one coat of red oxide primer and two coats of synthetic enamel paint, cost of all materials, machinery, labour, formwork, finishing, curing etc., complete **with lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **10.00 Rm****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	30.00	3.88	116.46
2	20-10 mm coarse aggregate	cum	0.04	1182.00	47.28
3	10-4.75 mm coarse aggregate	cum	0.02	860.00	17.20
4	Fine aggregate (Un-Screened)	cum	0.04	100.00	4.00
5	Reinforcement steel	kg	16.39	42.00	688.38
6	40 mm dia GI pipes B class	Rm	30.00	218.00	6540.00
7	Use rate of shuttering	sqm	3.00	228.86	686.57
8	Sundries (paints/ binding wire etc)	LS	4.00	31.00	124.00
Total cost of Materials				Rs:	8223.89

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Class I	Day	0.50	475.00	237.50
2	Bar bender	Day	0.50	600.00	300.00
3	work inspector	Day	0.50	500.00	250.00
4	mazdoor	Day	1.50	400.00	600.00
5	Painter Cl- II	Day	0.50	440.00	220.00
6	Fitter shuttering	Day	0.50	440.00	220.00
Total cost of Labour				Rs:	1827.50

labour component/unit qty 182.80

Add contractor's profit and overhead charges 13.615% 24.90

labour component/unit qty (including contractor's profit) **207.70****ABSTRACT:**

A. Cost of Materials	Rs:	8223.89
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1827.50
	Total Rs:	10051.39
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	1368.5
Total cost for	10.00 Rm Rs:	11419.89
Rate per Rm	(A+B+C+D)/10.0 Rs.	1142.00

IRR-CCDW-6 **HUME PIPE LAYING & JOINTING WORKS :**

IRR-CCDW-6-1 Laying and jointing 300 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 9.9 kg / joint, FA : 0.01cum/joint, Hemp Yarn : 0.091kg/joint)

DATA:

RATE ANALYSISUNIT : **10.00 Joints****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	99.00	3.88	384.32
2	Sand (Screened)	cum	0.10	182.00	18.20
3	Hemp yarn	kg	0.91	61.00	55.51
Total cost of Materials				Rs:	458.03

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	2.00	440.00	880.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	2580.00

labour component/unit qty	258.00
Add contractor's profit and overhead charges	13.615% 35.10
labour component/unit qty (including contractor's profit)	293.10

ABSTRACT:

A. Cost of Materials	Rs:	458.03
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2580.00
	Total	Rs: 3038.03
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	413.63
Total cost for	10.00 Joints	Rs: 3451.658
Rate per joint	(A+B+C+D)/10.0	Rs. 345.20

Note: (1) For NP3 Class - 10% extra over the rates of NP2 Class
(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-2 Laying and jointing 450 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 17.4 kg / joint, FA : 0.022cum/joint, Hemp Yarn : 0.127kg/joint)

DATA:

RATE ANALYSIS

UNIT : 10.00 Joints

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	174.00	3.88	675.47
2	Sand (Screened)	cum	0.22	182.00	40.04
3	Hemp yarn	kg	1.27	61.00	77.47
Total cost of Materials				Rs:	792.98

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	2.00	440.00	880.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	2580.00

labour component/unit qty	258.00
Add contractor's profit and overhead charges	13.615% 35.10
labour component/unit qty (including contractor's profit)	293.10

ABSTRACT:

A. Cost of Materials	Rs:	792.98
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2580.00
	Total	Rs: 3372.98
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	459.23
Total cost for	10.00 Joints	Rs: 3832.208
Rate per joint	(A+B+C+D)/10.0	Rs. 383.20

Note: (1) For NP3 Class - 10% extra over the rates of NP2 Class
(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-3 Laying and jointing 600 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 24.8 kg / joint, FA : 0.025cum/joint, Hemp Yarn : 0.22kg/joint)

DATA:

RATE ANALYSISUNIT : **10.00 Joints****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	248.00	3.88	962.74
2	Sand (Screened)	cum	0.25	182.00	45.50
3	Hemp yarn	kg	2.20	61.00	134.20
Total cost of Materials				Rs:	1142.44

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	2.50	440.00	1100.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	3200.00

labour component/unit qty 320.00

Add contractor's profit and overhead charges 13.615% 43.60

labour component/unit qty (including contractor's profit) **363.60****ABSTRACT:**

A. Cost of Materials Rs: 1142.44

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 3200.00

Total Rs: 4342.44

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 591.22

Total cost for 10.00 Joints Rs: **4933.656****Rate per joint** (A+B+C+D)/10.0 Rs. **493.40****Note:**

(1) For NP3 Class - 10% extra over the rates of NP2 Class

(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-4

Laying and jointing 700 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto **50 m and all lifts.****(Cement content: 32.1 kg / joint, FA : 0.031cum/joint, Hemp Yarn : 0.25kg/joint)**

DATA:

RATE ANALYSISUNIT : **10.00 Joints****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	321.00	3.88	1246.12
2	Sand (Screened)	cum	0.31	182.00	56.42
3	Hemp yarn	kg	2.50	61.00	152.50
Total cost of Materials				Rs:	1455.04

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	2.50	440.00	1100.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	3200.00

labour component/unit qty 320.00

Add contractor's profit and overhead charges 13.615% 43.60

labour component/unit qty (including contractor's profit) **363.60**

ABSTRACT:

A. Cost of Materials		Rs:	1455.04
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	3200.00
		Total	Rs: 4655.04
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	633.78
Total cost for	10.00 Joints	Rs:	5288.822
Rate per joint	(A+B+C+D)/10.0	Rs.	528.90

Note: (1) For NP3 Class - 10% extra over the rates of NP2 Class
(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-5 Laying and jointing 800 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 39.6 kg / joint, FA : 0.039cum/joint, Hemp Yarn : 0.31kg/joint)

DATA: **RATE ANALYSIS** UNIT : **10.00 Joints**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	396.00	3.88	1537.27
2	Sand (Screened)	cum	0.39	182.00	70.98
3	Hemp yarn	kg	3.10	61.00	189.10
Total cost of Materials				Rs:	1797.35

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	3.00	440.00	1320.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	3820.00

labour component/unit qty 382.00
Add contractor's profit and overhead charges 13.615% 52.00
labour component/unit qty (including contractor's profit) **434.00**

ABSTRACT:

A. Cost of Materials		Rs:	1797.35
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	3820.00
		Total	Rs: 5617.35
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	764.8
Total cost for	10.00 Joints	Rs:	6382.152
Rate per joint	(A+B+C+D)/10.0	Rs.	638.20

Note: (1) For NP3 Class - 10% extra over the rates of NP2 Class
(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-6 Laying and jointing 900 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 44.6 kg / joint, FA : 0.045cum/joint, Hemp Yarn : 0.34kg/joint)

DATA: **RATE ANALYSIS** UNIT : **10.00 Joints**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	446.00	3.88	1731.37
2	Sand (Screened)	cum	0.45	182.00	81.90
3	Hemp yarn	kg	3.40	61.00	207.40
Total cost of Materials				Rs:	2020.67

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	3.00	440.00	1320.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	3820.00

labour component/unit qty

382.00

Add contractor's profit and overhead charges

13.615% 52.00

labour component/unit qty (including contractor's profit)

434.00**ABSTRACT:**

A. Cost of Materials

Rs: 2020.67

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 3820.00

Total

Rs: 5840.67

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs:

795.21

Total cost for

10.00 Joints

Rs:

6635.882**Rate per joint**

(A+B+C+D)/10.0

Rs.

663.60

Note:

(1) For NP3 Class - 10% extra over the rates of NP2 Class

(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-7

Laying and jointing 1000 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto **50 m and all lifts.****(Cement content: 49.5 kg / joint, FA : 0.05cum/joint, Hemp Yarn : 0.377kg/joint)**

DATA:

RATE ANALYSISUNIT : **10.00 Joints****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	495.00	3.88	1921.59
2	Sand (Screened)	cum	0.50	182.00	91.00
3	Hemp yarn	kg	3.77	61.00	229.97
Total cost of Materials				Rs:	2242.56

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	3.00	440.00	1320.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	4220.00

labour component/unit qty

422.00

Add contractor's profit and overhead charges

13.615% 57.50

labour component/unit qty (including contractor's profit)

479.50**ABSTRACT:**

A. Cost of Materials

Rs: 2242.56

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 4220.00

Total

Rs: 6462.56

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs:

879.88

Total cost for

10.00 Joints

Rs:

7342.44**Rate per joint**

(A+B+C+D)/10.0

Rs.

734.20

Note:

(1) For NP3 Class - 10% extra over the rates of NP2 Class

(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-8 Laying and jointing 1100 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 56.9 kg / joint, FA : 0.058cum/joint, Hemp Yarn : 0.415kg/joint)

DATA:

RATE ANALYSIS

UNIT : 10.00 Joints

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	569.00	3.88	2208.86
2	Sand (Screened)	cum	0.58	182.00	105.56
3	Hemp yarn	kg	4.15	61.00	253.15
Total cost of Materials				Rs:	2567.57

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill (Manual mixing)		0.00 0.00	0.00 0.00	0.00 0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	3.00	440.00	1320.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	4220.00

labour component/unit qty 422.00

Add contractor's profit and overhead charges 13.615% 57.50

labour component/unit qty (including contractor's profit)

479.50

ABSTRACT:

A. Cost of Materials	Rs:	2567.57
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	4220.00
	Total Rs:	6787.57
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	924.13
Total cost for	10.00 Joints Rs:	7711.698
Rate per joint	(A+B+C+D)/10.0 Rs.	771.20

Note:

(1) For NP3 Class - 10% extra over the rates of NP2 Class

(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-6-9 Laying and jointing 1200 mm dia. NP- 2 class or IRC standard hume pipes in CM 1 : 2 proportion by volume including cost of all materials (excluding pipes and collars), machinery, labour, aligning, packing joints with hemp, finishing, curing etc., complete with initial lead upto 50 m and all lifts.
(Cement content: 66.8 kg / joint, FA : 0.069cum/joint, Hemp Yarn : 0.453kg/joint)

DATA:

RATE ANALYSIS

UNIT : 10.00 Joints

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement	kg	668.00	3.88	2593.18
2	Sand (Screened)	cum	0.69	182.00	125.58
3	Hemp yarn	kg	4.53	61.00	276.33
Total cost of Materials				Rs:	2995.09

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill (Manual mixing)		0.00 0.00	0.00 0.00	0.00 0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason CI- II	Day	4.00	440.00	1760.00

2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	7.00	400.00	2800.00
Total cost of Labour				Rs:	5060.00

labour component/unit qty	506.00
Add contractor's profit and overhead charges	13.615% 68.90
labour component/unit qty (including contractor's profit)	<u>574.90</u>

ABSTRACT:

A. Cost of Materials		Rs:	2995.09
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	5060.00
	Total	Rs:	8055.09
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	1096.7
Total cost for	10.00 Joints	Rs:	9151.786
Rate per joint	(A+B+C+D)/10.0	Rs.	915.20

Note: (1) For NP3 Class - 10% extra over the rates of NP2 Class
(2) For NP4 Class - 20% extra over the rates of NP2 Class

IRR-CCDW-7 **BACK FILLING & OTHER WORKS :**

IRR-CCDW-7-1 **Providing rubble / boulder and sand filling behind abutment and return walls** in layers including cost of all materials, machinery, labour, watering, ramming etc., complete with initial lead upto 50 m and initial lift upto 3 m.

DATA: **RATE ANALYSIS** UNIT : **10.00 cum**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble / Boulder	cum	10.00	303.00	3030.00
2	Sand for filling	cum	4.00	100.00	400.00
Total cost of Materials				Rs:	3430.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nil		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	Mason CI II	Day	1.00	440.00	440.00
3	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	2290.00

labour component/unit qty	229.00
Add contractor's profit and overhead charges	13.615% 31.20
labour component/unit qty (including contractor's profit)	<u>260.20</u>

ABSTRACT:

A. Cost of Materials		Rs:	3430.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	2290.00
	Total	Rs:	5720.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	778.78
Total cost for	10.00 cum	Rs:	6498.78
Rate per cum	(A+B+C+D)/10.0	Rs.	649.88

IRR-CCDW-7-2 **Providing and filling murrum / gravelly soil (CNS soil) for foundation or around pipes** including breaking clods, spreading in layers of 10 to 15 cm, watering, compaction by earth masters to achieve density control of not less than 95 percent etc., complete with lead upto 50 m and all lifts.

DATA: **RATE ANALYSIS** UNIT : **10.00 cum**

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Murum	cum	12.00	185.00	2220.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	2220.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Nill		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cartman with double bullock cart	Day	0.50	500.00	250.00
2	work inspector	Day	0.50	500.00	250.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	2900.00

labour component/unit qty 290.00

Add contractor's profit and overhead charges 13.615% 39.50

labour component/unit qty (including contractor's profit) **329.50****ABSTRACT:**

A. Cost of Materials	Rs:	2220.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2900.00
	Total Rs:	5120.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	697.09
Total cost for	10.00 cum Rs:	5817.09
Rate per cum	(A+B+C+D)/10.0 Rs.	581.70

IRR-CCDW-7-3 Providing and filling murum / gravely soil (CNS soil) for foundation or above pipes including breaking clods, spreading in layers of 10 to 15 cm, watering, compaction by power roller to achieve density control of not less than 98 percent etc., complete with lead upto 50 m and all lifts.

DATA:

RATE ANALYSIS

UNIT : 10.00 cum

A. MATERIALS:

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Murum	cum	12.00	185.00	2220.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	2220.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Diesel road roller 8-10 tonne	Hour	0.17	160.40	27.37
	Fuel / Energy charges	Hour	0.17	937.40	159.97
Total hire charges of Machinery				Rs:	187.34

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Operator road roller	Hour	0.17	232.10	39.61
2	Cartman with double bullock cart	Day	0.50	500.00	250.00
3	work inspector	Day	0.50	500.00	250.00
4	mazdoor	Day	1.50	400.00	600.00
Total cost of Labour				Rs:	1139.61

labour component/unit qty 114.00

Add contractor's profit and overhead charges 13.615% 15.50

labour component/unit qty (including contractor's profit) **129.50****ABSTRACT:**

A. Cost of Materials	Rs:	2220.00
B. Hire charges of Machinery	Rs:	187.34
C. Cost of Labour	Rs:	1139.61
	Total Rs:	3546.95
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	482.92
Total cost for	10.00 cum Rs:	4029.87
Rate per cum	(A+B+C+D)/10.0 Rs.	403.00

IRR-CCDW-7-4 Providing and fixing one line dressed 111x35x25 cm thick IRC standard kilometre stone in cement concrete M-10 grade with 40 mm down size aggregates including excavating pit of size 70x45x40 cm, embedding the stone by 30 cm in concrete, providing 2 coats synthetic enamel paint of approved quality and colour to exposed surfaces and lettering as directed, cost

of all materials, labour, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **4 Nos.****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	One line dressed Km stone	No.	4.00	457.00	1828.00
2	40-20 mm coarse aggregate	cum	0.20	1133.00	226.60
3	20-10 mm coarse aggregate	cum	0.15	1182.00	177.30
4	10-4.75 mm coarse aggregate	cum	0.10	860.00	86.00
5	Sand (Un-Screened)	cum	0.20	100.00	20.00
6	Cement	kg	100.00	3.88	388.20
7	Synthetic enamel paint I st quality	ltr	1.00	222.00	222.00
8	Sundries (brush / oil etc)	LS	4.00	31.00	124.00
Total cost of Materials				Rs:	3072.10

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Cl- II	Day	1.00	440.00	440.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	1.00	400.00	400.00
4	Painter Cl- I	Day	1.00	550.00	550.00
Total cost of Labour				Rs:	1890.00

labour component/unit qty

472.50

Add contractor's profit and overhead charges

13.615% 64.30

labour component/unit qty (including contractor's profit)

536.80**ABSTRACT:**

A. Cost of Materials

Rs: 3072.10

B. Hire charges of Machinery

Rs: 0.00

C. Cost of Labour

Rs: 1890.00

Total Rs: **4962.10**

D. Add for contractor's profit and overheads on (A+B+C)

13.615% Rs: 675.59

Total cost for

4.00 Nos. Rs: **5637.69****Rate per No.**(A+B+C+D)/4.0 Rs: **1409.40**

IRR-CCDW-7-5

Providing and **fixing one line dressed 65x15x10 cm thick IRC standard hectometre stone in cement concrete M-10** grade with **40 mm down size** aggregates including excavating pit of size 50x45x40 cm, embedding the stone by 30 cm in concrete, providing 2 coats synthetic enamel paint of approved quality and colour to exposed surfaces and lettering as directed, cost of all materials, labour, finishing, curing etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **4 Nos.****A. MATERIALS:**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	One line dressed hectometre stone	No.	4.00	248.00	992.00
2	40-20 mm coarse aggregate	cum	0.20	1133.00	226.60
3	20-10 mm coarse aggregate	cum	0.15	1182.00	177.30
4	10-4.75 mm coarse aggregate	cum	0.10	860.00	86.00
5	Sand (Un-Screened)	cum	0.20	100.00	20.00
6	Cement	kg	100.00	3.88	388.20
7	Synthetic enamel paint I st quality	ltr	0.40	222.00	88.80
8	Sundries (brush / oil etc)	LS	1.00	31.00	31.00
Total cost of Materials				Rs:	2009.90

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
	(Manual mixing)		0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mason Cl- II	Day	1.00	440.00	440.00
2	work inspector	Day	1.00	500.00	500.00
3	mazdoor	Day	1.00	400.00	400.00

4	Painter Cl- I	Day	0.50	550.00	275.00
Total cost of Labour				Rs:	1615.00

labour component/unit qty	403.80		
Add contractor's profit and overhead charges	13.615%	55.00	
labour component/unit qty (including contractor's profit)		<u>458.80</u>	
ABSTRACT:			
A. Cost of Materials			Rs: 2009.90
B. Hire charges of Machinery			Rs: 0.00
C. Cost of Labour			Rs: <u>1615.00</u>
		Total	Rs: <u>3624.90</u>
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	493.53
Total cost for	4.00 Nos.	Rs:	4118.43
Rate per No.	(A+B+C+D)/4.0	Rs.	1029.60

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CHAPTER-V
HYDRAULIC GATES AND ALLIED EQUIPMENT - Standard Data

(WLL BE WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)

FOR THE YEAR : 2018-19

IRR-GAW

GATE HOIST AND ALLIED WORKS - DATA RATES

- 1 All materials / bought out components for embedded parts, gates, hoists and allied works shall conform to relevant Indian standards / technical specifications and approved drawings.
- 2 The basic rates are EXCLUSIVE of preparation of designs / drawings / material schedules etc., as per specifications and other technical data including revisions.
If designs & drawings are to be done by private agency 2% of estimated cost be added
- 3 The basic rates are inclusive of cost of all materials, machinery, labour, fabrication, erection, commissioning and testing of gates, hoists and other related components as per technical specifications.
- 4 The basic rates are inclusive of finishing, wastage of materials, incidental works, temporary supports, all enabling works, profit, overheads, small tools / plants, hidden cost on labour etc.
- 5 The basic rates are inclusive of duties (excise), levies and all other incidental charges but exclusive of VAT, Excise Duty & GST. Separate provision shall be made in the estimate towards such tax on works contract at the rate prevailing at the time of preparation of estimate.
- 6 The basic rates are inclusive of all leads and lifts including rehandling.
- 7 no provision is made for stitch welding and it is part of welding work
- 8 The basic rates are inclusive of preparatory works such as rectification of damages, repairing shop painting, cleaning, positioning and anchoring first stage embedments.
- 9 The basic rates are not inclusive of painting with or without sand blasting, and are to be added to the rate as per schedule rates formulated in the same chapter as per applicability and specifications
- 10 The basic rates are exclusive of cost of river diversion arrangements, dewatering, desilting, secondary concreting of EM parts etc., which form part of civil works.
- 11 DESIGNS AND DRAWING CHARGES AT 2% BE ADDED EXTRA TO THE ESTIMATES, IF CONTRACTOR'S SCOPE OF WORK INVOLVES DESIGNS COMPONENT ALSO
- 12 Add AREA ALLOWANCES AS APPLICABLE ON LABOUR COMPONENT ONLY (SHOWN UNDER EACH ITEM)
- 13 Add contractors profit and overheads at 14% to all items
- 14 Painting Charges added extra to the data items as per applicability wherever necessary
- 15 HOIST EQUIPMENT 1.-where sand blasting is not possible, hand and power tool cleaning be adopted - Guidance may be taken from Mechanical workshop in this regard
2. Machined surfaces should not be painted
3. for maintenance unless sand blasting is essential hand and power tool cleaning be adopted
- 16 Painting of Hoast Gates is to be done as per IS 14177:1994

DATA and RATES ---GATE / HOIST AND ALLIED WORKS -

(STORED WITH E-N-C & TO INCORPORATE CHANGES YEARLY/AS NEEDED)

GAW - Work Items**Index- code**

IRR-GAW

TYPES OF GATES:**IRR-GAW-1 A. SPILLWAY RADIAL GATES****IRR-GAW-1-1 E.M Parts and anchorages**

fabrication, supply, erection, testing and **commissioning of Embedded parts for radial gate** consists of sill beam, wall plates, anchor girders , yoke girders, tie flats, trunnion supports etc., including cost of all materials, machinery, labour, welding, finishing, with leads and lifts &all accessories **(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perscedule of rates under itemsinthis chapter and add as applicable separately)**

Drawing no. MD/CDO/VRSP/90-92/85-86 (Vengalaraya Sagar - Gomukhi Project)

Vent Size: 12.00 X 6.6 Mtrs

DATA:

RATE ANALYSISUNIT : **15.300 tonne****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Str steel angle / beam / channel / bars	kg	3467.00	41.30	143187.10
2	Structural steel plate / flats	kg	11261.00	41.20	463953.20
3	Stainless steel plate / flats	kg	515.00	41.20	21218.00
4	MS bolts and nuts	kg	48.00	68.00	3264.00
5	Oxygen gas	cum	158.00	36.00	5688.00
6	Acetyline gas	cum	53.00	293.00	15529.00
7	Welding electrodes	Nos	11520.00	11.00	126720.00
8	Welding electrodes (LH)	Nos	2880.00	14.00	40320.00
9	Welding electrodes (stainless steel)	Nos	1160.00	20.00	23200.00
10	Use rate welding holder set	Hour	1945.00	6.88	13389.38
11	Use rate gas cutting torch set	Hour	158.00	21.33	3369.88
12	Sundries	LS	100.00	31.00	3100.00
Total cost of Materials				Rs:	862938.56

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	1945.00	14.10	27424.50
	Fuel / Energy charges	Hour	1945.00	102.10	198584.50
2	Tower crane/heavy duty tyre mounted crane	Hour	16.00	705.50	11288.00
	Fuel / Energy charges	Hour	16.00	221.10	3537.60
3	Plate shearing machine	Hour	16.00	37.20	595.20
	Fuel / Energy charges	Hour	16.00	170.10	2721.60
4	Pug cutting machine	Hour	76.00	5.70	433.20
	Fuel / Energy charges	Hour	76.00	4.30	326.80
5	Mobile crane 16 Tonnes	Hour	22.00	1853.40	40774.80
	Fuel / Energy charges	Hour	22.00	75.00	1650.00
6	Stationery derrick crane	Hour	64.00	70.10	4486.40
	Fuel / Energy charges	Hour	64.00	0.00	0.00
7	Grinding machine	Hour	30.00	18.30	549.00
	Fuel / Energy charges	Hour	30.00	42.50	1275.00
8	Drilling machines	Hour	30.00	18.30	549.00
	Fuel / Energy charges	Hour	30.00	42.50	1275.00
9	Planing machine	Hour	100.00	104.50	10450.00
	Fuel / Energy charges	Hour	100.00	127.60	12760.00
10	Bending Machine	Hour	30.00	37.80	1134.00
	Fuel / Energy charges	Hour	30.00	127.60	3828.00
11	Sundries	LS	100.00	31.00	3100.00
Total hire charges of Machinery				Rs:	326742.60

C. LABOUR:

Sl No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Tower crane	Hour	16.00	205.90	3294.40
2	Crew for Mobile crane 16 T	Hour	22.00	576.60	12685.20
3	Crew for Shearing machine	Hour	16.00	154.40	2470.40
4	Crew for Planing machine	Hour	100.00	232.10	23210.00
5	Crew for Drilling machine	Hour	30.00	214.50	6435.00
6	Crew for Grinding machine	Hour	30.00	214.50	6435.00
7	Crew for Bending machine		30.00	145.10	4353.00
8	Foreman	Day	15.00	550.00	8250.00
9	Marker / Fabricator / Erector	Day	75.00	595.00	44625.00
10	Gas cutter	Day	20.00	490.00	9800.00
11	Welder (General)	Day	212.00	490.00	103880.00
12	Welder (X - ray)	Day	48.00	550.00	26400.00
13	Khalasi	Day	345.00	490.00	169050.00
14	Helper fabrication / erection	Day	255.00	440.00	112200.00
15	Electrician	Day	5.00	555.00	2775.00
Total cost of Labour				Rs:	535863.00

Add towards highly skilled labour charges @ 30% on total cost of labour

160758.90

Total Cost of Labour

696621.90

labour component/unit qty 45530.80

Add contractor's profit and overhead charges 13.615% 6199.00

labour component/unit qty (including contractor's profit) **51729.80****ABSTRACT:**

A. Cost of Materials		Rs:	862938.56
B. Hire charges of Machinery		Rs:	326742.60
C. Cost of Labour		Rs:	696621.90

	Total	Rs:	1886303.06
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D. Add for excise duty	0.00%	Rs:	0.00
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(on 75 percent cost excluding cost of materials)	Total	Rs:	1886303.06
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E. Add for transportation upto work site @	3%	Rs:	56589.09
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	Total	Rs:	1942892.15
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F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	264524.77
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Add 2 leads

Add 1 km lead charges for fabricated parts	19.70 per tonne	602.82
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Unloading charges of fabricated parts Rs	85.30 per tonne	2610.18
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Total cost for	15.300 tonne	Rs:	2210629.91
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Rate per tonne	Rs:	144485.60
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RADIAL GATES**A-2 Gates**

IRR-GAW-1-2 fabrication, supply, erection, testing and **commissioning of radial gate** consisting of skin plate, stiffeners, horizontal girders, radial arms, trunnion assemblies, tie beam, pulley supports, bracings, rubber seals, clamps etc., with all accessories for **spillway/canals** including cost of all materials, machinery, labour, seal fixing etc., complete as per specifications and approved drawings

(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perscedule of rates under itemsinthis chapter and add as applicable separately)

Drawing no. MD/CDO/VRSP/170-172/85-86(Vengalaraya Sagar - Gomukhi Project)

DATA:

RATE ANALYSIS

UNIT : **29.000 tonne**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel :				
	Angles / beams / channels / bars	kg	9700.00	41.30	400610.00
	Plates / flats	kg	16850.00	41.20	694220.00
2	Cast steel components :				
	Trunnion hubs / Guide rollers	kg	2100.00	172.00	361200.00
3	Alluminium / Bronze alloy components :				
	Bush for Trunnion / Guide roller	kg	350.00	878.00	307300.00
4	Bolt / Nut / Washer :				
	GI bolts / nuts / washers	kg	250.00	127.00	31750.00
5	Zinc/Babbit Metal	kg	50.00	175.00	8750.00
6	Rubber seals :				
	Bottom seal	Rm	12.00	606.00	7272.00
	Side seals (Z - type)	Rm	14.00	1242.00	17388.00
7	Oxygen gas	cum	228.00	36.00	8208.00
8	Acetyline gas	cum	76.00	293.00	22268.00
9	Welding electrodes (std)	Nos	1000.00	11.00	11000.00
10	Welding electrodes (LH)	Nos	250.00	14.00	3500.00
11	Use rate welding holder set	Hour	156.00	6.88	1073.90
12	Use rate gas cutting torch set	Hour	228.00	21.33	4862.86
13	Sundries	LS	500.00	31.00	15500.00
Total cost of Materials				Rs:	1894902.76

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	156.00	14.10	2199.60
	Fuel / Energy charges	Hour	156.00	102.10	15927.60
2	Plate shearing machine	Hour	29.00	37.20	1078.80
	Fuel / Energy charges	Hour	29.00	170.10	4932.90
3	Pug cutting machine	Hour	114.00	5.70	649.80
	Fuel / Energy charges	Hour	114.00	4.30	490.20
4	Bending machine	Hour	116.00	37.80	4384.80
	Fuel / Energy charges	Hour	116.00	127.60	14801.60
5	Tower crane 5 t capacity	Hour	29.00	705.50	20459.50
	Fuel / Energy charges	Hour	29.00	221.10	6411.90
6	Mobile derric crane	Hour	58.00	422.80	24522.40
	Fuel / Energy charges	Hour	58.00	393.70	22834.60
7	Stationery derric crane	Hour	58.00	70.10	4065.80
	Fuel / Energy charges	Hour	58.00	0.00	0.00
8	Grinding machine	Hour	58.00	18.30	1061.40
	Fuel / Energy charges	Hour	58.00	42.50	2465.00
9	Drilling machines	Hour	58.00	18.30	1061.40
	Fuel / Energy charges	Hour	58.00	42.50	2465.00
10	Mobile Crane 30 T	Hour	100.00	2519.40	251940.00
	Fuel / Energy charges	Hour	100.00	118.80	11880.00
11	Sundries	LS	500.00	31.00	15500.00
Total hire charges of Machinery				Rs:	409132.30

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane 30T	Hour	100.00	576.60	57660.00
2	Crew for Tower crane	Hour	29.00	205.90	5971.10
3	Crew for Bending machine	Hour	116.00	145.10	16831.60
4	Crew for Drilling machine	Hour	58.00	214.50	12441.00
5	Crew for Grinding machine	Hour	58.00	214.50	12441.00
6	Foreman	Day	29.00	550.00	15950.00
7	Marker / Fabricator / Erector	Day	145.00	595.00	86275.00
8	Gas cutter	Day	29.00	490.00	14210.00
9	Welder (General)	Day	17.00	490.00	8330.00
10	Welder (X - ray)	Day	5.00	550.00	2750.00
11	Khalasi	Day	493.00	490.00	241570.00
12	Helper fabrication / erection	Day	667.00	440.00	293480.00
13	Electrician	Day	15.00	555.00	8325.00
Total cost of Labour				Rs:	776234.70

Add towards highly skilled labour charges @ 30% on total cost of labour

232870.41

Total Cost of Labour

1009105.11

labour component/unit qty 34796.70

Add contractor's profit and overhead charges 13.615% 4737.60

labour component/unit qty (including contractor's profit) **39534.30****ABSTRACT:**

A. Cost of Materials Rs: 1894902.76

B. Hire charges of Machinery Rs: 409132.30

C. Cost of Labour Rs: 1009105.11

Total Rs: 3313140.17

D. Add for excise duty 0.00% Rs: 0.00

(on 75 percent cost excluding cost of materials) Total Rs: 3313140.17

E. Add for transportation upto work site @ 3% Rs: 99394.21

Total Rs: 3412534.38

F. Add for contractor's profit and overheads on (A+B+C+D+E) 13.615% Rs: 464616.56

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 1142.6

Unloading charges of fabricated parts Rs 85.30 per tonne 4947.4

Total cost for 29.000 tonne Rs: 3883240.93

Rate per tonne Rs: **133904.90**IRR-GAW-1-3 **RADIAL GATES-ROPE DRUM HOISTS WITH HOIST BRIDGES**fabrication, supply, erection, testing and **commissioning of electrically operated rope****drum hoist of adequate capacity** consisting of base frames, rope drums, connecting shaft, gear

system, brake system, electric motor, wire ropes, gate position indicator, manual operation

arrangement etc., with all accessories for spillway radial gate including cost of all materials,

machinery, labour,, greasing, providing hand railing and approach staircase with gate to hoist platform,

, complete as per specifications and approved drawings

(without painting on sand-blasted or mechanical cleaning surfaces which are added extra

as perschedule of rates under itemsinthis chapter and add as applicable separately)

DATA:

RATE ANALYSISUNIT : **15.440 tonne wt****A. MATERIALS:****90.00 t capacity**

Sl No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	2571.00	41.30	106182.30
	Plates / flats	kg	3632.00	41.20	149638.40
2	Cast steel components :				
	Rope drums 2 Nos / Gears 4 Nos	kg	3680.00	213.00	783840.00
	Pinions	kg	218.00	204.00	44472.00
	Pulleys 720 PCD 6 Nos	kg	1080.00	172.00	185760.00
	Plummer blocks / Hubs	kg	322.00	172.00	55384.00
3	Alloy steel components				
	Shafts	kg	557.00	213.00	118641.00
	Pins	kg	546.00	408.00	222768.00
4	Bronze alloy components :				
	Bronze bearings / bush	kg	144.00	878.00	126432.00
	Wire rope 36 mm dia 6/37				
5	construction	kg	448.00	169.00	75712.00
6	MS Bolt / Nut / Washer	kg	85.00	68.00	5780.00
7	Worm reducers	No.	1.00	174210.00	174210.00
8	Electric motor 20 hp	No.	1.00	93970.00	93970.00
9	Floating shaft 300 mm dia	kg	1000.00	150.00	150000.00
10	Manual operating system	No.	1.00	26240.00	26240.00
11	Gate position indicator	No.	1.00	158460.00	158460.00
12	Ele-magnetic brake	No.	1.00	27330.00	27330.00
	Electric cable / switch / control panel				
13	etc	LS	1.00	44460.00	44460.00
14	Oxygen gas	cum	213.00	36.00	7668.00
15	Acetyline gas	cum	71.00	293.00	20803.00
16	Welding electrodes	Nos	530.00	11.00	5830.00
17	Welding electrodes (LH)	Nos	4776.00	14.00	66864.00
18	Grease	kg	50.00	243.00	12150.00
19	Use rate welding holder set	Hour	566.00	6.88	3896.34
20	Use rate gas cutting torch set	Hour	90.00	21.33	1919.55
21	Sundries (hand rail /staircase / gate e	LS	200.00	31.00	6200.00
Total cost of Materials				Rs:	2674610.59

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	566.00	14.10	7980.60
	Fuel / Energy charges	Hour	353.00	102.10	36041.30
2	Tower crane 5 t capacity	Hour	4.00	705.50	2822.00
	Fuel / Energy charges	Hour	4.00	221.10	884.40
3	Pug cutting machine	Hour	53.00	5.70	302.10
	Fuel / Energy charges	Hour	53.00	4.30	227.90
4	Mobile derrick crane	Hour	50.00	422.80	21140.00
	Fuel / Energy charges	Hour	50.00	393.70	19685.00
5	Grinding machine	Hour	8.00	18.30	146.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
6	Drilling machines	Hour	16.00	18.30	292.80
	Fuel / Energy charges	Hour	16.00	42.50	680.00
7	Sundries	LS	100.00	31.00	3100.00
Total hire charges of Machinery				Rs:	93642.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane	Hour	50.00	193.10	9655.00
2	Crew for Tower crane	Hour	4.00	205.90	823.60
3	Crew for Drilling machine	Hour	16.00	214.50	3432.00
4	Crew for Grinding machine	Hour	8.00	214.50	1716.00
5	Foreman	Day	35.00	550.00	19250.00
	Marker / Fabricator / Erector /				
6	Mechanic	Day	58.00	595.00	34510.00
7	Gas cutter	Day	18.00	490.00	8820.00
8	Welder (General)	Day	53.00	490.00	25970.00
9	Khalasi	Day	20.00	490.00	9800.00
10	Helper fabrication / erection	Day	175.00	440.00	77000.00
11	Electrician	Day	3.00	555.00	1665.00
Total cost of Labour				Rs:	192641.60

Add towards highly skilled labour charges @ 30% on total cost of labour

57792.48

Total Cost of Labour

250434.08

labour component/unit qty	2782.60
Add contractor's profit and overhead charges 13.615%	378.90
labour component/unit qty (including contractor's profit)	3161.50

ABSTRACT:

A. Cost of Materials		Rs:	2674610.59
B. Hire charges of Machinery		Rs:	93642.50
C. Cost of Labour		Rs:	250434.08
	Total	Rs:	3018687.17
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	3018687.17
E. Add for transportation upto work site @	3%	Rs:	90560.62
	Total	Rs:	3109247.79
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	423324.09
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne		608.336
Unloading charges of fabricated parts Rs	85.30 per tonne		<u>2634.064</u>
Total cost for	15.440 tonne wt	Rs:	<u>3535814.28</u>
Total cost for	90.00 t capacity	Rs:	
	Rate per tonne wt	Rs:	<u>229003.50</u>
	Rate per tonne capacity of hoist		<u>39286.80</u>

IRR-GAW-1-4 Walk way(cat walk)

fabrication, supply, erection and **commissioning of 1 metre wide walkway connecting spillway piers / abutments** at trunnion platform level including cost of all materials, machinery, labour, cutting, welding etc, complete as per specifications and approved drawings **(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perscedule of rates under itemsinthis chapter and add as applicable separately)**

DATA:

RATE ANALYSIS

UNIT :

5.22 MT**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	4258.00	41.30	175855.40
	Plates / flats	kg	98.00	41.20	4037.60
	Chequered plates	kg	856.00	55.00	47080.00
2	MS bolts / nuts / washers	kg	8.00	68.00	544.00
3	Oxygen gas	cum	51.00	36.00	1836.00
4	Acetyline gas	cum	17.00	293.00	4981.00
5	Welding electrodes	Nos	1195.00	11.00	13145.00
6	Use rate welding holder set	Hour	150.00	6.88	1032.60
7	Use rate gas cutting torch set	Hour	30.00	21.33	639.85
8	Sundries	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	249461.45

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	150.00	14.10	2115.00
	Fuel / Energy charges	Hour	150.00	102.10	15315.00
2	Tower crane	Hour	6.00	705.50	4233.00
	Fuel / Energy charges	Hour	6.00	221.10	1326.60
3	Pug cutting machine	Hour	12.00	5.70	68.40
	Fuel / Energy charges	Hour	12.00	4.30	51.60
4	Mobile CRANE 16T	Hour	8.00	1853.40	14827.20
	Fuel / Energy charges	Hour	8.00	75.00	600.00
5	Grinding machine	Hour	12.00	18.30	219.60
	Fuel / Energy charges	Hour	12.00	42.50	510.00
6	Drilling machines	Hour	12.00	18.30	219.60
	Fuel / Energy charges	Hour	12.00	42.50	510.00
7	Bending Machine	Hour	10.00	37.80	378.00
	Fuel / Energy charges	Hour	10.00	127.60	1276.00
8	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs:	41960.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane 16T	Hour	10.00	576.60	5766.00
2	Crew for Tower crane	Hour	6.00	205.90	1235.40
3	Crew for Drilling machine	Hour	12.00	214.50	2574.00
4	Crew for Grinding machine	Hour	12.00	214.50	2574.00
5	Crew for Bending machine	Hour	10.00	145.10	1451.00
6	Foreman	Day	6.00	550.00	3300.00
7	Marker / Fabricator / Erector	Day	25.00	595.00	14875.00
8	Gas cutter	Day	5.00	490.00	2450.00
9	Welder (General)	Day	20.00	490.00	9800.00
10	Helper fabrication / erection	Day	200.00	440.00	88000.00
11	Electrician	Day	2.00	555.00	1110.00
Total cost of Labour				Rs:	133135.40

Add towards highly skilled labour charges @ 30% on total cost of labour

39940.62

Total Cost of Labour

173076.02

labour component/unit qty

33156.30

Add contractor's profit and overhead charges

13.615% 4514.20

labour component/unit qty (including contractor's profit)

37670.50

ABSTRACT:

A. Cost of Materials		Rs:	249461.45
B. Hire charges of Machinery		Rs:	41960.00
C. Cost of Labour		Rs:	173076.02
	Total	Rs:	464497.47
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	464497.47
E. Add for transportation upto work site @	3%	Rs:	13934.92
	Total	Rs:	478432.39
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	65138.57
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne		205.668
Unloading charges of fabricated parts Rs	85.30 per tonne		890.532
Total cost for	5.22 MT	Rs:	544667.16
	Rate per MT	Rs:	104342.40

IRR-GAW-2 **VERTICAL LIFT GATES-EM PARTS**

IRR-GAW-2-1 Design, fabrication, supply, erection and **commissioning of embedded parts** consisting of sill beam, slide tracks, seal seats, guide rails, dogging sets for storage of stoplog elements etc., with all accessories for spillway stop log gates and other vertical lift elements including cost of all materials, machinery, labour, etc., complete as per specifications and approved drawings
(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perschedule of rates under items in this chapter and add as applicable separately)

Drawing No. MD/CDO/GNCP/HR/1759,1760/94 (GNSS Project)

Vent Size: 3.6 X 6.1 Mtr

DATA:

RATE ANALYSIS

UNIT : **6.300 tonne**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Str steel angle / beam / channel / bars	kg	1885.00	41.30	77850.50
2	Structural steel plate / flats	kg	3890.00	41.20	160268.00
3	Stainless steel plate / flats	kg	271.00	41.20	11165.20
4	MS bolts and nuts	kg	50.00	68.00	3400.00
5	Oxygen gas	cum	225.00	36.00	8100.00
6	Acetyline gas	cum	75.00	293.00	21975.00
7	Welding electrodes	Nos	1410.00	11.00	15510.00
8	Welding electrodes (LH)	Nos	350.00	14.00	4900.00
9	Welding electrodes (stainless steel)	Nos	1320.00	20.00	26400.00
10	Use rate welding holder set	Hour	385.00	6.88	2650.34
11	Use rate gas cutting torch set	Hour	225.00	21.33	4798.88
12	Sundries	LS	40.00	31.00	1240.00
Total cost of Materials				Rs:	338257.92

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	385.00	14.10	5428.50
	Fuel / Energy charges	Hour	385.00	102.10	39308.50
2	Plate shearing machine	Hour	8.00	37.20	297.60
	Fuel / Energy charges	Hour	8.00	170.10	1360.80
3	Pug cutting machine	Hour	110.00	5.70	627.00
	Fuel / Energy charges	Hour	110.00	4.30	473.00
4	Planing machine	Hour	270.00	104.50	28215.00
	Fuel / Energy charges	Hour	270.00	127.60	34452.00
5	Mobile Crane 16 T	Hour	24.00	1853.40	44481.60
	Fuel / Energy charges	Hour	24.00	75.00	1800.00
6	Stationery derrick crane	Hour	14.00	70.10	981.40
	Fuel / Energy charges	Hour	14.00	0.00	0.00
7	Grinding machine	Hour	14.00	18.30	256.20
	Fuel / Energy charges	Hour	14.00	42.50	595.00
8	Drilling machines	Hour	21.00	18.30	384.30
	Fuel / Energy charges	Hour	21.00	42.50	892.50
9	Bending Machine	Hour	14.00	37.80	529.20
	Fuel / Energy charges	Hour	14.00	127.60	1786.40
10	Sundries	LS	40.00	31.00	1240.00
Total hire charges of Machinery				Rs:	163109.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane 16 T	Hour	24.00	576.60	13838.40
2	Crew for Planing machine	Hour	270.00	232.10	62667.00
3	Crew for Drilling machine	Hour	21.00	214.50	4504.50
4	Crew for Grinding machine	Hour	14.00	214.50	3003.00
5	Crew for Bending machine	Hour	14.00	145.10	2031.40
6	Foreman	Day	32.00	550.00	17600.00
7	Marker / Fabricator / Erector	Day	35.00	595.00	20825.00
8	Gas cutter	Day	9.00	490.00	4410.00
9	Welder (General)	Day	46.00	490.00	22540.00
10	Welder (X - ray)	Day	6.00	550.00	3300.00
11	Helper fabrication / erection	Day	240.00	440.00	105600.00
12	Electrician	Day	4.00	555.00	2220.00
Total cost of Labour				Rs:	262539.30

Add towards highly skilled labour charges @ 30% on total cost of labour

78761.79

Total Cost of Labour

341301.09

labour component/unit qty 54174.80

Add contractor's profit and overhead charges 13.615% 7375.90

labour component/unit qty (including contractor's profit) **61550.70****ABSTRACT:**

A. Cost of Materials		Rs:	338257.92
B. Hire charges of Machinery		Rs:	163109.00
C. Cost of Labour		Rs:	341301.09
	Total	Rs:	842668.01
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	842668.01
E. Add for transportation upto work site @	3%	Rs:	25280.04
	Total	Rs:	867948.05
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	118171.13

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 248.22

Unloading charges of fabricated parts Rs 85.30 per tonne 1074.78

Total cost for

6.30 tonne

Rs: 987442.17

Rate per tonne

Rs: 156736.90

vertical lift gates and stop log gate elements (SLIDING GATES)

IRR-GAW-2-2 Design, fabrication, supply, erection, testing and commissioning of vertical lift gates and

stoplog gate elements, consisting of skin plate,

horizontal and vertical girders, stiffeners, lifting pins, bronze padded slide blocks/bearings, guide shoes,

rubber seals, clamps etc., with all accessories including cost of all materials,

machinery, labour, seal fixing etc., complete as per specifications and approved drawings

(without painting on sand-blasted or mechanical cleaning surfaces which are added extra**as perschedule of rates under items in this chapter and add as applicable separately)****Drawing NO. CE/CDO/CL3/MRP/783/2002 (Spillway Stop log gate Elements of Madduvalasa Project)**

Vent Size: 12.624 X 0.50 M 16 Elements

DATA:

RATE ANALYSIS

UNIT : 119.000 tonne

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	5280.00	41.30	218064.00
	Plates / flats	kg	112880.00	41.20	4650656.00
2	Alloy steel components				
	Lifting pins	kg	520.00	408.00	212160.00
3	Bolt / Nut / Washer				
	GI bolts / nuts / washers	kg	600.00	127.00	76200.00
4	Rubber seals				
	Bottom seal	Rm	210.00	606.00	127260.00
	Side seals	Rm	18.00	939.00	16902.00
5	Oxygen gas	cum	2714.00	36.00	97704.00
6	Acetyline gas	cum	905.00	293.00	265165.00
7	Welding electrodes	Nos	86554.00	11.00	952094.00
8	Welding electrodes (LH)	Nos	16486.00	14.00	230804.00
9	Use rate welding holder set	Hour	12880.00	6.88	88665.92
10	Use rate gas cutting torch set	Hour	2714.00	21.33	57885.10
11	Sundries	LS	400.00	31.00	12400.00
Total cost of Materials				Rs:	7005960.02

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	12880.00	14.10	181608.00
	Fuel / Energy charges	Hour	12880.00	102.10	1315048.00
2	Pug cutting machine	Hour	6440.00	5.70	36708.00
	Fuel / Energy charges	Hour	6440.00	4.30	27692.00
3	Mobile crane 16 T	Hour	360.00	1853.40	667224.00
	Fuel / Energy charges	Hour	360.00	75.00	27000.00
4	Stationery derrick crane	Hour	238.00	70.10	16683.80
	Fuel / Energy charges	Hour	238.00	0.00	0.00
5	Grinding machine	Hour	238.00	18.30	4355.40
	Fuel / Energy charges	Hour	238.00	42.50	10115.00
6	Drilling machines	Hour	357.00	18.30	6533.10
	Fuel / Energy charges	Hour	357.00	42.50	15172.50
7	Bending Machine	Hour	240.00	37.80	9072.00
	Fuel / Energy charges	Hour	240.00	127.60	30624.00
8	Sundries	LS	180.00	31.00	5580.00
Total hire charges of Machinery				Rs:	2353415.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane 16T	Hour	360.00	576.60	207576.00
2	Crew for Drilling machine	Hour	357.00	214.50	76576.50
3	Crew for Grinding machine	Hour	238.00	214.50	51051.00
4	Crew for Bending machine	Hour	240.00	145.10	34824.00
5	Foreman	Day	120.00	550.00	66000.00
6	Marker / Fabricator / Erector	Day	195.00	595.00	116025.00
7	Gas cutter	Day	100.00	490.00	49000.00
8	Welder (General)	Day	1442.00	490.00	706580.00
9	Welder (X - ray)	Day	275.00	550.00	151250.00
10	Khalasi	Day	2023.00	490.00	991270.00
11	Helper fabrication / erection	Day	2727.00	440.00	1199880.00
12	Electrician	Day	10.00	555.00	5550.00
Total cost of Labour				Rs:	3655582.50

Add towards highly skilled labour charges @ 30% on total cost of labour

1096674.75

Total Cost of Labour

4752257.25

labour component/unit qty 39934.90

Add contractor's profit and overhead charges 13.615% 5437.10

labour component/unit qty (including contractor's profit) **45372.00****ABSTRACT:**

A. Cost of Materials		Rs:	7005960.02
B. Hire charges of Machinery		Rs:	2353415.80
C. Cost of Labour		Rs:	4752257.25
	Total	Rs:	14111633.07
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	14111633.07
E. Add for transportation upto work site @	3%	Rs:	423348.99
	Total	Rs:	14534982.06

F. Add for contractor's profit and overheads on (A+B+C+D+E) 13.615% Rs: 1978937.81

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 4688.600

Unloading charges of fabricated parts Rs 85.30 per tonne 20301.4

Total cost for 119.00 tonne Rs: 16538909.87

Rate per tonne Rs: 138982.40**STOP LOGS-automatic lifting beam**

IRR-GAW-2-3 fabrication, supply, erection, testing and **commissioning of automatic lifting beam with all accessories for handling**, lowering and lifting of spillway stop log gate elements including cost of all materials, machinery, labour, cutting, aligning, welding, finishing, etc., complete as per specifications and drawings with all leads and lifts.
(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSIS

UNIT :

Gates and Allied Works - Item Unit Rates 2018-19
3.528 tonne**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	13.00	41.30	536.90
	Plates / flats	kg	3389.00	41.20	139626.80
2	Alloy steel components				
	Lifting pins	kg	101.00	408.00	41208.00
3	Bronze alloy components :				
	Bronze bush	kg	5.00	878.00	4390.00
4	Forged steel components :				
	Lifting hooks	kg	103.00	244.00	25132.00
5	MS pipe 100 mm dia	kg	11.00	158.00	1738.00
6	Bolt / Nut / Washer				
	MS bolts / nuts / washers	kg	3.00	68.00	204.00
7	Oxygen gas	cum	126.00	36.00	4536.00
8	Acetyline gas	cum	42.00	293.00	12306.00
9	Welding electrodes	Nos	175.00	11.00	1925.00
10	Welding electrodes (LH)	Nos	1575.00	14.00	22050.00
11	Use rate welding holder set	Hour	187.00	6.88	1287.31
12	Use rate gas cutting torch set	Hour	24.00	21.33	511.88
13	Sundries	LS	25.00	31.00	775.00
Total cost of Materials				Rs:	256226.89

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	187.00	14.10	2636.70
	Fuel / Energy charges	Hour	117.00	102.10	11945.70
2	Pug cutting machine	Hour	60.00	5.70	342.00
	Fuel / Energy charges	Hour	60.00	4.30	258.00
3	Mobile derrick crane	Hour	4.00	422.80	1691.20
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
4	Stationery derrick crane	Hour	8.00	70.10	560.80
	Fuel / Energy charges	Hour	8.00	0.00	0.00
5	Grinding machine	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
6	Drilling machines	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
7	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs:	19562.40

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane	Hour	4.00	193.10	772.40
2	Crew for Drilling machine	Hour	2.00	214.50	429.00
3	Crew for Grinding machine	Hour	2.00	214.50	429.00
4	Foreman	Day	10.00	550.00	5500.00
5	Marker / Fabricator / Erector	Day	18.00	595.00	10710.00
6	Gas cutter	Day	10.00	490.00	4900.00
7	Welder (General)	Day	18.00	490.00	8820.00
8	Helper fabrication / erection	Day	52.00	440.00	22880.00
9	Electrician	Day	1.00	555.00	555.00
Total cost of Labour				Rs:	54995.40

Add towards highly skilled labour charges @ 30% on total cost of labour

16498.62

Total Cost of Labour

71494.02

labour component/unit qty

20264.70

Add contractor's profit and overhead charges

13.615% 2759.00

labour component/unit qty (including contractor's profit)

23023.70

ABSTRACT:

A. Cost of Materials		Rs:	256226.89
B. Hire charges of Machinery		Rs:	19562.40
C. Cost of Labour		Rs:	<u>71494.02</u>
	Total	Rs:	<u>347283.31</u>
D. Add for excise duty	0.00%	Rs:	<u>0.00</u>
(on 75 percent cost excluding cost of materials)	Total	Rs:	<u>347283.31</u>
E. Add for transportation upto work site @	3%	Rs:	10418.50
	Total	Rs:	357701.81
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	48701.10
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne		139.004
Unloading charges of fabricated parts Rs	85.30 per tonne		<u>601.876</u>
Total cost for	3.528 tonne	Rs:	407143.79
	Rate per tonne	Rs:	115403.60

MOVING GANTRY CRANE-CLASS II

- IRR-GAW-2-4 fabrication, supply, erection, testing and **commissioning of adequate capacity Class- II type moving gantry crane** consisting of rail mounted gantry frame, top platform with hand railing, long / cross travel arrangements, rope drums, gear systems, electric motors, electro-magnetic brake system, cabin, control panel, wire rope, ladder, motorised cable reeling drum etc., with all accessories for operating spillway stop log gate elements and river sluice / canal sluice emergency gates including cost of all materials, machinery, labour, etc., complete **with all leads and lifts**.
(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perschedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSISUNIT : **30.856 tonne****A. MATERIALS:****25 t capacity**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	1743.00	41.30	71985.90
	Plates / flats	kg	19700.00	41.20	811640.00
	Chequered plates	kg	820.00	55.00	45100.00
2	Cast steel components :				
	Rope drums 2 Nos/Gears	kg	1320.00	213.00	281160.00
	pinions	kg	1165.00	204.00	237660.00
	Wheels / Pulleys	kg	2255.00	172.00	387860.00
	Plummer blocks / Couplings	kg	817.00	172.00	140524.00
3	Forged steel components				
	Hook / Shackle	kg	127.00	244.00	30988.00
4	Alloy steel components				
	Shafts	kg	556.00	213.00	118428.00
	Pins	kg	524.00	408.00	213792.00
5	Bronze alloy components :				
	Bronze bearings / bush	kg	181.00	878.00	158918.00
6	Wire rope 28 mm dia 6/37 construction	kg	406.00	169.00	68614.00
7	MS Bolt / Nut / Washer	kg	63.00	68.00	4284.00
8	MS pipe 32 mm dia for railing	Rm	50.00	167.00	8350.00
9	Worm reducers	Nos.	4.00	174210.00	696840.00
10	Electric motor 17.5 hp	No.	1.00	66610.00	66610.00
	Electric motor 5 hp	Nos.	2.00	25620.00	51240.00
	Electric motor 3 hp	No.	1.00	17930.00	17930.00
11	Ele-magnetic / Thruster brakes	Nos.	4.00	27330.00	109320.00
12	Electric cable / switch / control panel etc	LS	3.00	44460.00	133380.00
13	Oxygen gas	cum	579.00	36.00	20844.00
14	Acetyline gas	cum	193.00	293.00	56549.00
15	Welding electrodes	Nos	1123.00	11.00	12353.00
16	Welding electrodes (LH)	Nos	10110.00	14.00	141540.00
17	Grease	kg	50.00	243.00	12150.00
18	Use rate welding holder set	Hour	1197.00	6.88	8240.15
19	Use rate gas cutting torch set	Hour	150.00	21.33	3199.25
20	Sundries	LS	200.00	31.00	6200.00
Total cost of Materials				Rs:	3915699.30

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	1197.00	14.10	16877.70
	Fuel / Energy charges	Hour	748.00	102.10	76370.80
2	Tower crane 5 t capacity	Hour	6.00	705.50	4233.00
	Fuel / Energy charges	Hour	6.00	221.10	1326.60
3	Pug cutting machine	Hour	235.00	5.70	1339.50
	Fuel / Energy charges	Hour	235.00	4.30	1010.50
4	Mobile derrick crane	Hour	100.00	422.80	42280.00
	Fuel / Energy charges	Hour	100.00	393.70	39370.00
5	Grinding machine	Hour	32.00	18.30	585.60
	Fuel / Energy charges	Hour	32.00	42.50	1360.00
6	Drilling machines	Hour	16.00	18.30	292.80
	Fuel / Energy charges	Hour	16.00	42.50	680.00
7	Sundries	LS	500.00	31.00	15500.00
Total hire charges of Machinery				Rs:	201226.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane	Hour	100.00	193.10	19310.00
2	Crew for Tower crane	Hour	6.00	205.90	1235.40
3	Crew for Drilling machine	Hour	16.00	214.50	3432.00
4	Crew for Grinding machine	Hour	32.00	214.50	6864.00
5	Foreman	Day	74.00	550.00	40700.00
6	Marker / Fabricator / Erector	Day	124.00	595.00	73780.00
7	Gas cutter	Day	48.00	490.00	23520.00
8	Welder (General)	Day	112.00	490.00	54880.00
9	Khalasi	Day	20.00	490.00	9800.00
10	Helper fabrication / erection	Day	350.00	440.00	154000.00
11	Electrician	Day	10.00	555.00	5550.00
Total cost of Labour				Rs:	393071.40

Add towards highly skilled labour charges @ 30% on total cost of labour

117921.42

Total Cost of Labour

510992.82

labour component/unit qty 20439.70

Add contractor's profit and overhead charges 13.615% 2782.90

labour component/unit qty (including contractor's profit) **23222.60****ABSTRACT:**

A. Cost of Materials Rs: 3915699.30

B. Hire charges of Machinery Rs: 201226.50

C. Cost of Labour Rs: 510992.82

Total Rs: 4627918.62

D. Add for excise duty 0.00% Rs: 0.00

(on 75 percent cost excluding cost of materials) Total Rs: 4627918.62

E. Add for transportation upto work site @ 3% Rs: 138837.56

Total Rs: 4766756.18

F. Add for contractor's profit and overheads on

(A+B+C+D+E) 13.615% Rs: 648993.85

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 1215.726

Unloading charges of fabricated parts Rs 85.30 per tonne 5264.034

Total cost for 30.856 tonne Rs: 5422229.79

25.000 t capacity Rs:

Rate per tonne Rs: 175726.90

Rate per tonne capacity Rs: 216889.20**RAIL TRACK FOR GANTRY CRANE**IRR-GAW-2-5 Design, fabrication, supply, erection and **commissioning of rail track using 45 kg / m standard****rails on spillway bridge for movement of gantry crane** for handling and operating spillway

stoplog gate elements / river sluice / canal sluice emergency gate including cost of all materials,

machinery, labour, complete as per specifications

(without painting on sand-blasted or mechanical cleaning surfaces which are added extra

as per schedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSISUNIT : **200.000 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Str steel angle / beam / channel / bars	kg	1570.00	41.30	64841.00
2	Structural steel plate / flats	kg	975.00	41.20	40170.00
3	Rails	kg	18450.00	51.40	948330.00
4	MS bolts and nuts	kg	246.00	68.00	16728.00
5	Oxygen gas	cum	201.00	36.00	7236.00
6	Acetyline gas	cum	67.00	293.00	19631.00
7	Welding electrodes	Nos	1805.00	11.00	19855.00
8	Use rate welding holder set	Hour	193.00	6.88	1328.61
9	Use rate gas cutting torch set	Hour	133.00	21.33	2836.67
10	Sundries	LS	10.00	31.00	310.00
Total cost of Materials				Rs:	1121266.28

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	193.00	14.10	2721.30
	Fuel / Energy charges	Hour	121.00	102.10	12354.10
2	Mobile derric crane	Hour	4.00	422.80	1691.20
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
3	Grinding machine	Hour	8.00	18.30	146.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
4	Drilling machines	Hour	50.00	18.30	915.00
	Fuel / Energy charges	Hour	50.00	42.50	2125.00
5	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs:	22177.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane	Hour	4.00	193.10	772.40
2	Crew for Drilling machine	Hour	50.00	214.50	10725.00
3	Crew for Grinding machine	Hour	8.00	214.50	1716.00
4	Foreman	Day	8.00	550.00	4400.00
5	Marker / Fabricator / Erector	Day	32.00	595.00	19040.00
6	Gas cutter	Day	17.00	490.00	8330.00
7	Welder (General)	Day	18.00	490.00	8820.00
8	Helper fabrication / erection	Day	52.00	440.00	22880.00
9	Electrician	Day	1.00	555.00	555.00
Total cost of Labour				Rs:	77238.40

Add towards highly skilled labour charges @ 30% on total cost of labour

23171.52

Total Cost of Labour

100409.92

labour component/unit qty	502.00
Add contractor's profit and overhead charges	13.615% 68.30
labour component/unit qty (including contractor's profit)	570.30

ABSTRACT:

A. Cost of Materials		Rs:	1121266.28
B. Hire charges of Machinery		Rs:	22177.80
C. Cost of Labour		Rs:	100409.92
	Total	Rs:	1243854.00
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	1243854.00
E. Add for transportation upto work site @	3%	Rs:	37315.62
	Total	Rs:	1281169.62
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	174431.24
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne		816.446
Unloading charges of fabricated parts Rs	85.30 per tonne		3535.174
Total cost for	200.000 Rm	Rs:	1459952.48
Rate per Rm		Rs:	7299.80

VERTICAL LIFT GATES/STOP LOGS - ROLLER MOUNTED

IRR-GAW-2-6 Design, fabrication, supply, erection, testing and **commissioning of fixed wheel type vertical lift service gate** consisting of skin plate, vertical and horizontal girders, wheels, stiffeners, lifting brackets, guide rollers, ballast blocks, teflon claded rubber seals etc., with all accessories for river sluice / canal sluice vent including cost of all materials, machinery, labour, welding, aligning finishing seal fixing etc. with all leads and lifts, complete as per specifications and approved drawings **(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)**

Drawing No. CE/CDO/DEE/DEE4/GNC/HR/2150/96,2137/98 (GNSS Project)

DATA:

RATE ANALYSIS

UNIT : **10.000 tonne**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Plates / flats	kg	7103.00	41.20	292643.60
	Beams/Channels	kg	2727.00	41.30	112625.10
2	Alloy steel components				
	Wheel axles / Pins	kg	108.00	408.00	44064.00
3	Cast steel components				
	Wheels / Guide rollers	kg	504.00	172.00	86688.00
4	Alluminium / Bronze alloy components				
	Bearings	kg	12.00	878.00	10536.00
5	Bolt / Nut / Washer				
	GI bolts / nuts / washers	kg	36.00	88.00	3168.00
	MS bolts / nuts / washers	kg	6.00	68.00	408.00
6	Rubber seals				
	Bottom seal (flat uncladed)	Rm	3.72	606.00	2254.32
	Side seals (bulb teflon claded)	Rm	12.30	1296.00	15940.80
	Top seal (bulb teflon claded)	Rm	3.72	1296.00	4821.12
	Corner seals (bulb teflon claded)	Nos	2.00	1303.00	2606.00
7	Oxygen gas	cum	170.00	36.00	6120.00
8	Acetyline gas	cum	56.00	293.00	16408.00
9	Welding electrodes	Nos	3200.00	11.00	35200.00
10	Welding electrodes (LH)	Nos	800.00	14.00	11200.00
11	Use rate welding holder set	Hour	500.00	6.88	3442.00
12	Use rate gas cutting torch set	Hour	40.00	21.33	853.13
13	Sundries	LS	60.00	31.00	1860.00
Total cost of Materials				Rs:	650838.07

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	500.00	14.10	7050.00
	Fuel / Energy charges	Hour	500.00	102.10	51050.00
2	Pug cutting machine	Hour	85.00	5.70	484.50
	Fuel / Energy charges	Hour	85.00	4.30	365.50
3	Tower crane	Hour	10.00	705.50	7055.00
	Fuel / Energy charges	Hour	10.00	221.10	2211.00
4	Mobile crane 16 T	Hour	30.00	1853.40	55602.00
	Fuel / Energy charges	Hour	30.00	75.00	2250.00
5	Stationery derrick crane	Hour	20.00	70.10	1402.00
	Fuel / Energy charges	Hour	20.00	0.00	0.00
6	Grinding machine	Hour	10.00	18.30	183.00
	Fuel / Energy charges	Hour	10.00	42.50	425.00
7	Drilling machines	Hour	30.00	18.30	549.00
	Fuel / Energy charges	Hour	30.00	42.50	1275.00
8	Bending machine	Hour	10.00	37.80	378.00
	Fuel / Energy charges	Hour	10.00	127.60	1276.00
9	Sundries	LS	50.00	31.00	1550.00
Total hire charges of Machinery				Rs:	133106.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane 16 T	Hour	30.00	576.60	17298.00
2	Crew for Tower crane	Hour	10.00	205.90	2059.00
3	Crew for Drilling machine	Hour	30.00	214.50	6435.00
4	Crew for Grinding machine	Hour	10.00	214.50	2145.00
5	Crew for Bending machine	Hour	10.00	145.10	1451.00
6	Foreman	Day	16.00	550.00	8800.00
7	Marker / Fabricator / Erector	Day	50.00	595.00	29750.00
8	Gas cutter	Day	8.00	490.00	3920.00
9	Welder (General)	Day	52.00	490.00	25480.00
10	Welder (X - ray grade)	Day	14.00	550.00	7700.00
11	Khalasi	Day	170.00	490.00	83300.00
12	Helper fabrication / erection	Day	230.00	440.00	101200.00

13	Electrician	Day	4.00	555.00	2220.00
Total cost of Labour				Rs:	291758.00
Add towards highly skilled labour charges @ 30% on total cost of labour					87527.40
Total Cost of Labour					379285.40
labour component/unit qty			37928.50		
Add contractor's profit and overhead charges			13.615%	5164.00	
labour component/unit qty (including contractor's profit)				43092.50	

ABSTRACT:

A. Cost of Materials		Rs:	650838.07
B. Hire charges of Machinery		Rs:	133106.00
C. Cost of Labour		Rs:	379285.40
	Total	Rs:	1163229.47
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	1163229.47
E. Add for transportation upto work site @	3%	Rs:	34896.88
	Total	Rs:	1198126.36
F. Add for contractor's profit and overheads on			
(A+B+C+D+E)	13.615%	Rs:	163124.90
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne	394	
Unloading charges of fabricated parts	85.30 per tonne	1706	
Total cost for	10.000 tonne	Rs:	1363351.26
Rate per tonne		Rs:	136335.10

VERTICAL LIFT GATES-ROPE DRUM HOIST UPTO 30 TON CAP. POWER OPERATED

IRR-GAW-2-7 Design, fabrication, supply, erection, testing and **commissioning of adequate capacity rope drum hoist** consisting of hoist platform, rope drum, gear system, electric motor, electro-magnetic brake system, hand operation assembly, control panel, wire rope, pulleys, ladder etc., with all accessories for operating river sluice / canal sluice service gate including cost of all materials, machinery, labour, , complete as per specifications and drawings with all leads and lifts (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perschedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSIS			UNIT : 6.243 tonne wt 25 t capacity		
A. MATERIALS:					
SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	1487.00	41.30	61413.10
	Plates / flats	kg	402.00	41.20	16562.40
	Chequered plate	kg	290.00	55.00	15950.00
2	Cast steel components :				
	Rope drums 2 Nos / Gears	kg	1926.00	213.00	410238.00
	Pinions	kg	79.00	204.00	16116.00
	Pulleys 3 Nos / Couplings 2 Nos	kg	306.00	172.00	52632.00
	Plummer blocks / Hubs	kg	72.00	172.00	12384.00
3	Alloy steel components				
	Shafts	kg	346.00	213.00	73698.00
	Pins	kg	73.00	408.00	29784.00
4	Bronze alloy components :				
	Bronze bearings / bush	kg	57.00	878.00	50046.00
	Wire rope 28 mm dia 6/37				
5	construction	kg	325.00	169.00	54925.00
6	MS Bolt / Nut / Washer	kg	32.00	68.00	2176.00
7	Worm reducers	No.	1.00	174210.00	174210.00
8	Electric motor 5 hp	No.	1.00	25620.00	25620.00
9	Manual operating system	No.	1.00	26240.00	26240.00
10	Gate position indicator	No.	1.00	158460.00	158460.00
11	Ele-magnetic brake	No.	1.00	27330.00	27330.00
	Electric cable / switch / control panel				
12	etc	LS	1.00	44460.00	44460.00
13	Oxygen gas	cum	45.00	36.00	1620.00
14	Acetyline gas	cum	15.00	293.00	4395.00
15	Welding electrodes	Nos	80.00	11.00	880.00
16	Welding electrodes (LH)	Nos	720.00	14.00	10080.00
17	Grease	kg	50.00	243.00	12150.00
18	Use rate welding holder set	Hour	85.00	6.88	585.14
19	Use rate gas cutting torch set	Hour	16.00	21.33	341.25

				Gates and Allied Works - Item Unit Rates 2018-19	
20	Sundries	LS	25.00	31.00	775.00
Total cost of Materials				Rs:	1283070.89

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	85.00	14.10	1198.50
	Fuel / Energy charges	Hour	53.00	102.10	5411.30
2	Tower crane 5 t capacity	Hour	2.00	705.50	1411.00
	Fuel / Energy charges	Hour	2.00	221.10	442.20
3	Pug cutting machine	Hour	15.00	5.70	85.50
	Fuel / Energy charges	Hour	15.00	4.30	64.50
4	Mobile derrick crane	Hour	10.00	422.80	4228.00
	Fuel / Energy charges	Hour	10.00	393.70	3937.00
5	Grinding machine	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
6	Drilling machines	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
7	Sundries	LS	25.00	31.00	775.00
Total hire charges of Machinery				Rs:	17796.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane	Hour	10.00	193.10	1931.00
2	Crew for Tower crane	Hour	2.00	205.90	411.80
3	Crew for Drilling machine	Hour	2.00	214.50	429.00
4	Crew for Grinding machine	Hour	2.00	214.50	429.00
5	Foreman	Day	15.00	550.00	8250.00
6	Marker / Fabricator / Erector	Day	19.00	595.00	11305.00
7	Gas cutter	Day	4.00	490.00	1960.00
8	Welder (General)	Day	8.00	490.00	3920.00
9	Khalasi	Day	4.00	490.00	1960.00
10	Helper fabrication / erection	Day	44.00	440.00	19360.00
11	Electrician	Day	2.00	555.00	1110.00
Total cost of Labour				Rs:	51065.80

Add towards highly skilled labour charges @ 30% on total cost of labour

15319.74

Total Cost of Labour

66385.54

labour component/unit qty 2655.40

Add contractor's profit and overhead charges 13.615% 361.50

labour component/unit qty (including contractor's profit) **3016.90****ABSTRACT:**

A. Cost of Materials Rs: 1283070.89

B. Hire charges of Machinery Rs: 17796.20

C. Cost of Labour Rs: 66385.54

Total Rs: 1367252.63

D. Add for excise duty 0.00% Rs: 0.00

(on 75 percent cost excluding cost of materials) Total Rs: 1367252.63

E. Add for transportation upto work site @ 3% Rs: 41017.58

Total Rs: 1408270.21

F. Add for contractor's profit and overheads on (A+B+C+D+E) 13.615% Rs: 191735.99

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 245.974

Unloading charges of fabricated parts Rs 85.30 per tonne 1065.056

Total cost for 6.243 tonne wt Rs: 1601317.23

25.000 t capacity Rs:

Rate per tonne wt Rs: 256498.00

Rate per tonne capacity of hoist Rs: 64052.70**HOIST BRIDGE/ WITH TRESSELS**

IRR-GAW-2-8 Design, fabrication, supply, erection and **commissioning of structural steel hoist bridge** consisting of columns, beams, bracings, stiffeners, ties, chequered plate covering, hand railing, ladder etc., with all accessories for supporting rope drum hoist for operating barrage gates including cost of all materials, machinery, labour, welding, finishing, etc., complete complete as per specifications and drawings **with all leads and lifts** (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perschedule of rates under items in this chapter and add as applicable separately) Drawing No. CE/CDO/VRSP/215,216/86-87 (Vengalaraya Sagar - Gomukhi Project)

DATA:

RATE ANALYSIS

UNIT : **10.500 tonne**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel angles/ beams / channels	kg	1494.00	41.30	61702.20
	Structural steel plates / flats	kg	6564.00	41.20	270436.80
	Chequered plate	kg	2442.00	55.00	134310.00
2	MS pipe 25 mm dia	Rm	60.00	135.00	8100.00
3	Bolt / Nut / Washers	kg	18.00	68.00	1224.00
4	Oxygen gas	cum	105.00	36.00	3780.00
5	Acetyline gas	cum	35.00	293.00	10255.00
6	Welding electrodes	Nos	3150.00	11.00	34650.00
7	Use rate welding holder set	Hour	394.00	6.88	2712.30
8	Use rate gas cutting torch set	Hour	105.00	21.33	2239.48
9	Sundries	LS	50.00	31.00	1550.00
Total cost of Materials				Rs:	530959.77

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	394.00	14.10	5555.40
	Fuel / Energy charges	Hour	394.00	102.10	40227.40
2	Pug cutting machine	Hour	52.00	5.70	296.40
	Fuel / Energy charges	Hour	52.00	4.30	223.60
3	Mobile crane 30 T	Hour	30.00	2519.40	75582.00
	Fuel / Energy charges	Hour	30.00	118.80	3564.00
4	Stationery derrick crane	Hour	20.00	70.10	1402.00
	Fuel / Energy charges	Hour	20.00	0.00	0.00
5	Drilling machine	Hour	20.00	18.30	366.00
	Fuel / Energy charges	Hour	20.00	42.50	850.00
6	Grinding machine	Hour	20.00	18.30	366.00
	Fuel / Energy charges	Hour	20.00	42.50	850.00
7	Tower Crane	Hour	20.00	705.50	14110.00
	Fuel / Energy charges	Hour	20.00	221.10	4422.00
8	Sundries	LS	50.00	31.00	1550.00
Total hire charges of Machinery				Rs:	149364.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane 30 T	Hour	30.00	576.60	17298.00
2	Crew for Drilling machine	Hour	20.00	214.50	4290.00
3	Crew for Grinding machine	Hour	20.00	214.50	4290.00
4	Crew for Tower Crane	Hour	20.00	205.90	4118.00
5	Foreman	Day	10.00	550.00	5500.00
6	Marker / Fabricator / Erector	Day	50.00	595.00	29750.00
7	Gas cutter	Day	14.00	490.00	6860.00
8	Welder (General)	Day	53.00	490.00	25970.00
9	Helper fabrication / erection	Day	400.00	440.00	176000.00
10	Electrician	Day	6.00	555.00	3330.00
Total cost of Labour				Rs:	277406.00

Add towards highly skilled labour charges @ 30% on total cost of labour **83221.80**

Total Cost of Labour **360627.80**

labour component/unit qty 34345.50

Add contractor's profit and overhead charges 13.615% 4676.10

labour component/unit qty (including contractor's profit) **39021.60**

ABSTRACT:

A. Cost of Materials		Rs:	530959.77
B. Hire charges of Machinery		Rs:	149364.80
C. Cost of Labour		Rs:	360627.80
	Total	Rs:	1040952.37
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	1040952.37
E. Add for transportation upto work site @	3%	Rs:	31228.57
	Total	Rs:	1072180.94
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	145977.44
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne	413.7	
Unloading charges of fabricated parts Rs	85.30 per tonne	1791.3	
Total cost for	10.500 tonne	Rs:	1220363.38
	Rate per tonne	Rs:	116225.10

ROPE DRUM HOIST WITHOUT HOIST BRIDGE FOR BARRAGE GATES

IRR-GAW-2-9 Design, fabrication, supply, erection, testing and **commissioning of adequate capacity rope drum hoist consisting of rope drum**, pulleys, gear system, electric motor, electro-magnetic brake system, manual operation assembly, position indicator, control panel, wire rope etc., with all accessories for operating vertical lift roller gates for barrage including cost of all materials, machinery, labour, cutting, bending, aligning, anchoring, welding, finishing etc., **complete with all leads and lifts.**

(without painting on sand-blasted or mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSISUNIT : **5.069 tonne wt****A. MATERIALS:****50.00 t capacity**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	420.00	41.30	17346.00
	Plates / flats	kg	225.00	41.20	9270.00
2	Cast steel components :				
	Rope drums 2 Nos / Gears	kg	1290.00	213.00	274770.00
	Pinions	kg	98.00	204.00	19992.00
	Pulleys 3 Nos / Couplings 2 Nos	kg	650.00	172.00	111800.00
	Plummer blocks / Hubs	kg	250.00	172.00	43000.00
3	Alloy steel components				
	Shafts / Keys	kg	350.00	213.00	74550.00
	Pins	kg	96.00	408.00	39168.00
4	Bronze alloy components :				
	Bronze bearings / bush	kg	100.00	878.00	87800.00
	Wire rope 28 mm dia 6/37 construction	kg	435.00	169.00	73515.00
5	MS Bolt / Nut / Washer	kg	26.00	68.00	1768.00
6	Worm reducers	No.	1.00	174210.00	174210.00
7	Electric motor 12.5 hp	No.	1.00	56360.00	56360.00
8	Manual operating system	No.	1.00	26240.00	26240.00
9	Gate position indicator	No.	1.00	158460.00	158460.00
10	Ele-magnetic brake	No.	1.00	27330.00	27330.00
11	Electric cable / switch / control panel etc	LS	1.00	44460.00	44460.00
12	Oxygen gas	cum	30.00	36.00	1080.00
13	Acetyline gas	cum	10.00	293.00	2930.00
14	Welding electrodes	Nos	44.00	11.00	484.00
15	Welding electrodes (LH)	Nos	392.00	14.00	5488.00
16	Grease	kg	50.00	243.00	12150.00
17	Use rate welding holder set	Hour	47.00	6.88	323.55
18	Use rate gas cutting torch set	Hour	12.00	21.33	255.94
19	Sundries	LS	25.00	31.00	775.00
Total cost of Materials				Rs:	1263525.49

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	47.00	14.10	662.70
	Fuel / Energy charges	Hour	47.00	102.10	4798.70
2	Tower crane 5 t capacity	Hour	2.00	705.50	1411.00
	Fuel / Energy charges	Hour	2.00	221.10	442.20
3	Pug cutting machine	Hour	9.00	5.70	51.30
	Fuel / Energy charges	Hour	9.00	4.30	38.70
4	Mobile derrick crane	Hour	10.00	422.80	4228.00
	Fuel / Energy charges	Hour	10.00	393.70	3937.00
5	Grinding machine	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
6	Drilling machines	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
7	Sundries	LS	25.00	31.00	775.00
Total hire charges of Machinery				Rs:	16587.80

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Mobile crane	Hour	10.00	193.10	1931.00
2	Crew for Tower crane	Hour	2.00	205.90	411.80
3	Crew for Drilling machine	Hour	2.00	214.50	429.00
4	Crew for Grinding machine	Hour	2.00	214.50	429.00
5	Foreman	Day	13.00	550.00	7150.00
6	Marker / Fabricator / Erector	Day	17.00	595.00	10115.00
7	Gas cutter	Day	3.00	490.00	1470.00
8	Welder (General)	Day	5.00	490.00	2450.00
9	Khalasi	Day	4.00	490.00	1960.00
10	Helper fabrication / erection	Day	36.00	440.00	15840.00
11	Electrician	Day	2.00	555.00	1110.00
Total cost of Labour				Rs:	43295.80

Add towards highly skilled labour charges @ 30% on total cost of labour

12988.74

Total Cost of Labour

56284.54

labour component/unit qty 1125.70

Add contractor's profit and overhead charges 13.615% 153.30

labour component/unit qty (including contractor's profit) **1279.00****ABSTRACT:**

A. Cost of Materials Rs: 1263525.49

B. Hire charges of Machinery Rs: 16587.80

C. Cost of Labour Rs: 56284.54

Total Rs: 1336397.83

D. Add for excise duty 0.00% Rs: 0.00

(on 75 percent cost excluding cost of materials) Total Rs: 1336397.83

E. Add for transportation upto work site @ 3% Rs: 40091.93

Total Rs: 1376489.76

F. Add for contractor's profit and overheads on (A+B+C+D+E) 13.615% Rs: 187409.08

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 199.718

Unloading charges of fabricated parts Rs 85.30 per tonne 864.772

Total cost for 5.069 tonne wt Rs: 1564963.33

50.000 t capacity Rs:

Rate per tonne wt Rs: 308732.20

Rate per tonne capacity of hoist Rs: 31299.30**SCREW GEAR HOISTS including plat form(UPTO 10 TON CAP)**

IRR-GAW-2-10

Design, fabrication, supply, erection, testing and **commissioning of adequate capacity screw gear type hoist** consisting of supporting structure, platform, ladder etc., with all accessories for operating canal escape / regulator gate including cost of all materials, machinery, labour, cutting, bending, aligning, anchoring, welding, finishing etc., complete with all leads and lifts. (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perschedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSIS

UNIT :

0.871 tonne**A. MATERIALS:****3.00 t capacity**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	402.00	41.30	16602.60
	Plates / flats	kg	145.00	41.20	5974.00
	Chequered plate	kg	176.00	55.00	9680.00
2	Cast iron components :				
	Hoist body / Lock nut / Main nut	kg	55.00	213.00	11715.00
3	Alloy steel components				
	Hoist stem	kg	75.00	213.00	15975.00
4	Bronze alloy components :				
	Thrust bearings	kg	4.00	878.00	3512.00
5	MS Bolt / Nut / Washer	kg	8.00	68.00	544.00
6	Oxygen gas	cum	18.00	36.00	648.00
7	Acetyline gas	cum	6.00	293.00	1758.00
8	Welding electrodes	Nos	7.00	11.00	77.00
9	Welding electrodes (LH)	Nos	66.00	14.00	924.00
10	Grease	kg	2.00	243.00	486.00
11	Use rate welding holder set	Hour	8.00	6.88	55.07
12	Use rate gas cutting torch set	Hour	11.00	21.33	234.61
13	Sundries	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	68247.28

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	8.00	14.10	112.80
	Fuel / Energy charges	Hour	5.00	102.10	510.50
2	Grinding machine	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
3	Drilling machines	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
4	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	928.50

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling machine	Hour	2.00	214.50	429.00
2	Crew for Grinding machine	Hour	2.00	214.50	429.00
3	Foreman	Day	4.00	550.00	2200.00
4	Marker / Fabricator / Erector	Day	5.00	595.00	2975.00
5	Gas cutter	Day	2.00	490.00	980.00
6	Welder (General)	Day	1.00	490.00	490.00
7	Helper fabrication / erection	Day	9.00	440.00	3960.00
8	Electrician	Day	0.50	555.00	277.50
Total cost of Labour				Rs:	11740.50

Add towards highly skilled labour charges @ 30% on total cost of labour

3522.15

Total Cost of Labour

15262.65

labour component/unit qty

5087.60

Add contractor's profit and overhead charges

13.615% 692.70

labour component/unit qty (including contractor's profit)

5780.30

ABSTRACT:

A. Cost of Materials		Rs:	68247.28
B. Hire charges of Machinery		Rs:	928.50
C. Cost of Labour		Rs:	15262.65
	Total	Rs:	84438.43
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	84438.43
E. Add for transportation upto work site @	3%	Rs:	2533.15
	Total	Rs:	86971.59
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	11841.18
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne		34.318
Unloading charges of fabricated parts Rs	85.30 per tonne		148.592
Total cost for	0.871 tonne	Rs:	98995.68
	3.000 t capacity	Rs:	
	Rate per tonne	Rs:	113657.50
	Rate per tonne capacity	Rs:	32998.60

MANUAL OPERATED ROPE DRUM HOISTS

IRR-GAW-2-11 Design, fabrication, supply, erection, testing and **commissioning of adequate capacity manually operated rope drum hoist** consisting of hoist platform, rope drum, gear system, brake system, wire rope, ladder etc., with all accessories for operating canal regulator radial gate including cost of all materials, machinery, labour, welding, finishing, cleaning, .., complete **with all leads and lifts** (without painting on sand-blasted or mechanical cleaning surfaces which are added extra as perschedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSIS		UNIT :		2.804	tonne
A. MATERIALS:				10.00	t capacity
SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel				
	Angles / beams / channels / bars	kg	1229.00	41.30	50757.70
	Plates / flats	kg	453.00	41.20	18663.60
	Chequered plate	kg	195.00	55.00	10725.00
2	Cast steel components :				
	Rope drums 2 Nos / Gears	kg	384.00	213.00	81792.00
	Pinions	kg	14.00	204.00	2856.00
	Pulleys 6 Nos	kg	108.00	172.00	18576.00
	Plummer blocks / Couplings	kg	47.00	172.00	8084.00
3	Alloy steel components				
	Shafts	kg	75.00	213.00	15975.00
	Pins	kg	24.00	408.00	9792.00
4	Bronze alloy components :				
	Bronze bearings / bush	kg	11.00	878.00	9658.00
5	Wire rope 12 mm dia 6/36 construction	kg	42.00	169.00	7098.00
6	MS Bolt / Nut / Washer	kg	64.00	68.00	4352.00
7	Worm reducers	No.	1.00	174210.00	174210.00
8	Manual operating system	No.	1.00	26240.00	26240.00
9	Brake	No.	1.00	27330.00	27330.00
10	Wire rope sockets	No	2.00	4300.00	8600.00
11	Oxygen gas	cum	75.00	36.00	2700.00
12	Acetyline gas	cum	25.00	293.00	7325.00
13	Welding electrodes	Nos	69.00	11.00	759.00
14	Welding electrodes (LH)	Nos	622.00	14.00	8708.00
15	Grease	kg	10.00	243.00	2430.00
16	Use rate welding holder set	Hour	73.00	6.88	502.53
17	Use rate gas cutting torch set	Hour	42.00	21.33	895.79
18	Sundries	LS	25.00	31.00	775.00
Total cost of Materials				Rs:	498804.62

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Welding transformer	Hour	73.00	14.10	1029.30
	Fuel / Energy charges	Hour	46.00	102.10	4696.60
2	Pug cutting machine	Hour	8.00	5.70	45.60
	Fuel / Energy charges	Hour	8.00	4.30	34.40
3	Mobile derric crane	Hour	4.00	422.80	1691.20
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
4	Stationery derric crane	Hour	8.00	70.10	560.80
	Fuel / Energy charges	Hour	8.00	0.00	0.00
5	Grinding machine	Hour	8.00	18.30	146.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
6	Drilling machines	Hour	16.00	18.30	292.80
	Fuel / Energy charges	Hour	16.00	42.50	680.00
7	Sundries	LS	25.00	31.00	775.00
	Total hire charges of Machinery			Rs:	11866.90

C. LABOUR:

SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Crew for Mobile crane	Hour	4.00	193.10	772.40
2	Crew for Drilling machine	Hour	16.00	214.50	3432.00
3	Crew for Grinding machine	Hour	8.00	214.50	1716.00
4	Foreman	Day	14.00	550.00	7700.00
5	Marker / Fabricator / Erector	Day	20.00	595.00	11900.00
6	Gas cutter	Day	6.00	490.00	2940.00
7	Welder (General)	Day	7.00	490.00	3430.00
8	Helper fabrication / erection	Day	44.00	440.00	19360.00
9	Electrician	Day	2.00	555.00	1110.00
	Total cost of Labour			Rs:	52360.40

Add towards highly skilled labour charges @ 30% on total cost of labour

15708.12

Total Cost of Labour

68068.52

labour component/unit qty 6806.90

Add contractor's profit and overhead charges 13.615% 926.80

labour component/unit qty (including contractor's profit) **7733.70****ABSTRACT:**

A. Cost of Materials	Rs:	498804.62
B. Hire charges of Machinery	Rs:	11866.90
C. Cost of Labour	Rs:	<u>68068.52</u>

Total Rs: 578740.04D. Add for excise duty 0.00% Rs: 0.00(on 75 percent cost excluding cost of materials) Total Rs: 578740.04E. Add for transportation upto work site @ 3% Rs: 17362.20Total Rs: 596102.24F. Add for contractor's profit and overheads on (A+B+C+D+E) 13.615% Rs: 81159.32

Add 2 leads

Add 1 km lead charges for fabricated parts 19.70 per tonne 110.478

Unloading charges of fabricated parts Rs 85.30 per tonne 478.362Total cost for 2.804 tonne Rs: 677850.40

10.000 t capacity

Rate per tonne Rs: 241744.10**Rate per tonne Rs: 67785.00****capacity of hoist**

IRR-GAW-2-
12
New Item
2015-16-2

OT SLUICE SHUTTERS Screw Gear Hoist Including Platform for below 5 Tons Capacity (Small Gates)

As per Guidelines of Chief Engineer, Central Designs Organization, Hyderabad Specification drawing for Krishna Delta System

Fabrication, supply, erection, testing and commissioning of Embedded parts consisting of supporting structure, platform etc. with all accessories for operating canal escape/ regulator gate with all accessories including cost of all materials, machinery, labour, cutting, bending, aligning, anchoring, welding, finishing etc. complete as per Specification and approved drawings

(without painting on mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)

DATA:

RATE ANALYSIS

UNIT : **0.869 tonne**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel angles/ beams / chanr	kg	445.78	41.30	18410.71
2	Structural steel plates / flats	kg	28.00	41.20	1153.60
3	Chequered plate	kg	144.80	55.00	7964.00
	Cast iron Components				
4	Hoist Body/lock nut/Main Nut etc.	Kg	83.00	213.00	17679.00
	Bronze Alloy Steel Components				
5	Thrust Bearings	kg	3.00	878.00	2634.00
6	MS Bolt/Nut/ Washer	kg	16.00	68.00	1088.00
7	Oxygen gas	cum	21.00	36.00	756.00
8	Acetyline gas	cum	7.00	293.00	2051.00
9	Welding electrodes	Nos	200.00	11.00	2200.00
10	Welding electrodes (LH)	Nos	40.00	14.00	560.00
11	Use rate welding holder set	Hour	72.00	6.88	495.65
12	Use rate gas cutting torch set	Hour	36.00	21.33	767.82
13	Sundries	LS	20.00	31.00	620.00
Total cost of Materials				Rs:	56379.78

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	30.00	14.10	423.00
	Fuel / Energy charges	Hour	30.00	102.10	3063.00
2	Pug cutting machine	Hour	12.00	5.70	68.40
	Fuel / Energy charges	Hour	12.00	4.30	51.60
3	Drilling machine	Hour	8.00	18.30	146.40
	Fuel / Energy charges	Hour	8.00	42.50	340.00
4	Grinding machine	Hour	36.00	18.30	658.80
	Fuel / Energy charges	Hour	36.00	42.50	1530.00
5	Lathe machine (Screw Rod M/C)	Hour	16.00	300.00	4800.00
6	Sundries	LS	10.00	31.00	310.00
Total hire charges of Machinery				Rs:	11391.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling machine	Hour	8.00	214.50	1716.00
2	Crew for Grinding machine	Hour	36.00	214.50	7722.00
3	Foreman	Day	2.00	550.00	1100.00
4	Marker / Fabricator / Erector	Day	10.00	595.00	5950.00
5	Gas cutter	Day	4.00	490.00	1960.00
6	Welder (General)	Day	4.00	490.00	1960.00
7	Mazdoors	Day	6.00	400.00	2400.00
8	Helper fabrication / erection	Day	6.00	440.00	2640.00
Total cost of Labour				Rs:	25448.00

labour component/unit qty 25448.00

Add contractor's profit and overhead charges 13.615% 3464.70

labour component/unit qty (including contractor's profit) **28912.70**

ABSTRACT:

A. Cost of Materials		Rs:	56379.78
B. Hire charges of Machinery		Rs:	11391.20
C. Cost of Labour		Rs:	25448.00
	Total	Rs:	93218.98
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	93218.98
E. Add for transportation upto work site @	3%	Rs:	2796.57
	Total	Rs:	96015.55
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	13072.52
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne		34.238
Unloading charges of fabricated parts Rs	85.30 per tonne		148.252
Total cost for	0.869 tonne	Rs:	109270.56
	Rate per tonne	Rs:	125742.90

IRR-GAW-2-
13
New Item
2015-16-3

OT SLUICE SHUTTERS EM parts for Below 5 Tons capacity (small gates)

As per Guidelines of Chief Engineer, Central Designs Organization, Hyderabad Specification drawing for Krishna Delta System

Fabrication, supply, erection, testing and commissioning of Embedded parts consisting of sil beam, slide tracks, seal seats, Guide plates etc. with all accessories including cost of all materials, machinery, labour, etc. complete as per specifications and approved drawings.

(without painting on mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)

Height of EM parts: 5.4 M

Gate Size: 0.99 X 0.875 M

DATA:

RATE ANALYSIS

UNIT : **1.334 tonne**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel angles/ beams / chanr	kg	440.57	41.30	18195.54
2	Structural steel plates / flats	kg	869.00	41.20	35802.80
3	Stainless Steel Flats	kg	25.12	41.20	1034.94
4	Oxygen gas	cum	12.00	36.00	432.00
5	Acetyline gas	cum	4.00	293.00	1172.00
6	Welding electrodes	Nos	210.00	11.00	2310.00
7	Welding electrodes (Stainless Steel)	Nos	30.00	20.00	600.00
8	Use rate welding holder set	Hour	62.00	6.88	426.81
9	Use rate gas cutting torch set	Hour	32.00	21.33	682.51
10	Sundries	LS	3.00	31.00	93.00
Total cost of Materials				Rs:	60749.60

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	30.00	14.10	423.00
	Fuel / Energy charges	Hour	30.00	102.10	3063.00
2	Pug cutting machine	Hour	20.00	5.70	114.00
	Fuel / Energy charges	Hour	20.00	4.30	86.00
3	Drilling machine	Hour	4.00	18.30	73.20
	Fuel / Energy charges	Hour	4.00	42.50	170.00
4	Grinding machine	Hour	20.00	18.30	366.00
	Fuel / Energy charges	Hour	20.00	42.50	850.00
5	Sundries	LS	3.00	31.00	93.00
Total hire charges of Machinery				Rs:	5238.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling machine	Hour	4.00	214.50	858.00
2	Crew for Grinding machine	Hour	20.00	214.50	4290.00
3	Foreman	Day	8.00	550.00	4400.00
4	Marker / Fabricator / Erector	Day	6.00	595.00	3570.00
5	Gas cutter	Day	2.00	490.00	980.00
6	Welder (General)	Day	4.00	490.00	1960.00
7	Mazdoors	Day	4.00	400.00	1600.00
8	Helper fabrication / erection	Day	8.00	440.00	3520.00
Total cost of Labour				Rs:	21178.00

labour component/unit qty 21178.00

Add contractor's profit and overhead charges 13.615% 2883.40

labour component/unit qty (including contractor's profit) **24061.40****ABSTRACT:**

A. Cost of Materials		Rs:	60749.60
B. Hire charges of Machinery		Rs:	5238.20
C. Cost of Labour		Rs:	21178.00
	Total	Rs:	87165.80
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	87165.80
E. Add for transportation upto work site @	3%	Rs:	2614.97
	Total	Rs:	89780.77
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	12223.65
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne	52.56	
Unloading charges of fabricated parts Rs	85.30 per tonne	227.58	
Total cost for	1.334 tonne	Rs:	102284.57
	Rate per tonne	Rs:	76675.10

IRR-GAW-2-
14
New Item
2015-16 -4

OT SLUICE SHUTTERS for Below 5 Tons capacity (small gates)

As per Guidelines of Chief Engineer, Central Designs Organization, Hyderabad Specification drawing for Krishna Delta System

Fabrication, supply, erection, testing and commissioning of Sluice Shutters consisting of skin plate, horizontal and vertical angles, stiffeners, rubber seals, clamps with all accessories for sluice shutters including cost of all materials, machinery, labour, seal fixing etc., complete as per specifications and approved drawings

(without painting on mechanical cleaning surfaces which are added extra as per schedule of rates under items in this chapter and add as applicable separately)

Gate Size: 0.99 X 0.875 M

DATA:

RATE ANALYSISUNIT : **0.161 tonne****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Structural steel angles/ beams / chanr	kg	63.72	41.30	2631.64
2	Structural steel plates / flats	kg	96.50	41.20	3975.80
3	GI Bolts/Nut/Washer	kg	20.00	127.00	2540.00
	Rubber Seals				
4	Bottom Seal	Rm	0.82	606.00	496.92
5	Side Seal/ Top Seal	Rm	1.75	939.00	1643.25
6	Oxygen gas	cum	15.00	36.00	540.00
7	Acetyline gas	cum	5.00	293.00	1465.00
8	Welding electrodes	Nos	110.00	11.00	1210.00
9	Use rate welding holder set	Hour	30.00	6.88	206.52
10	Use rate gas cutting torch set	Hour	12.00	21.33	255.94
11	Sundries	LS	3.00	31.00	93.00
Total cost of Materials				Rs:	15058.07

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Welding transformer	Hour	14.00	14.10	197.40
	Fuel / Energy charges	Hour	14.00	102.10	1429.40
2	Pug cutting machine	Hour	4.00	5.70	22.80
	Fuel / Energy charges	Hour	4.00	4.30	17.20
3	Drilling machine	Hour	2.00	18.30	36.60
	Fuel / Energy charges	Hour	2.00	42.50	85.00
4	Grinding machine	Hour	4.00	18.30	73.20
	Fuel / Energy charges	Hour	4.00	42.50	170.00
5	Sundries	LS	3.00	31.00	93.00
Total hire charges of Machinery				Rs:	2124.60

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Drilling machine	Hour	2.00	214.50	429.00
2	Crew for Grinding machine	Hour	4.00	214.50	858.00
3	Foreman	Day	2.00	550.00	1100.00
4	Marker / Fabricator / Erector	Day	3.00	595.00	1785.00
5	Gas cutter	Day	1.00	490.00	490.00
6	Welder (General)	Day	4.00	490.00	1960.00
7	Mazdoors	Day	4.00	400.00	1600.00
8	Helper fabrication / erection	Day	6.00	440.00	2640.00
Total cost of Labour				Rs:	10862.00

labour component/unit qty	10862.00
Add contractor's profit and overhead charges 13.615%	1478.90
labour component/unit qty (including contractor's profit)	12340.90

ABSTRACT:

A. Cost of Materials		Rs:	15058.07
B. Hire charges of Machinery		Rs:	2124.60
C. Cost of Labour		Rs:	10862.00
	Total	Rs:	28044.67
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	28044.67
E. Add for transportation upto work site @	3%	Rs:	841.34
	Total	Rs:	28886.01
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	3932.83
Add 2 leads			
Add 1 km lead charges for fabricated parts	19.70 per tonne	6.344	
Unloading charges of fabricated parts Rs	85.30 per tonne	27.466	
Total cost for	0.161 tonne	Rs:	32852.65
	Rate per tonne	Rs:	204053.70

IRR-GAW-3 **SAND BLASTING AND PAINTING AS PER IS:14177-1994**

IRR-GAW-3-1 **Cleaning gates / hoists / embedded parts/lifting beams** etc, to expose fresh metal surface for painting **by sand blasting method** as per specifications including cost of all materials, labour, machinery, scaffolding, etc., complete **with initial lead for sand upto 1 km and all lifts.**

DATA:

RATE ANALYSIS

UNIT : 100

sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand (Screened)	cum	30.00	182.00	5460.00
2	Use rate of air hose	Hour	8.00	15.88	127.00
3	Use rate of sand blast gun nozzle	Hour	8.00	3.10	24.80
4	Sundries(Rust inhibitive, seive etc)	LS	5.00	31.00	155.00
Total					5766.80
Add 10% towards scaffolding/laddor @				0.10	576.68
Total cost of Materials					6343.48

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Air compressor 7 cmm diesel	Hour	8.00	196.30	1570.40
	Fuel / Energy charges	Hour	8.00	937.40	7499.20
2	Sand blasting equipment	Hour	8.00	97.70	781.60
	Fuel / Energy charges	Hour	8.00	0.00	0.00
Total hire charges of Machinery					9851.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Air compressor	Hour	8.00	232.10	1856.80
2	Crew for Sand blasting equipment	Hour	8.00	241.80	1934.40
3	mazdoor	Day	15.00	400.00	6000.00
Total cost of Labour					9791.20

labour component/unit qty 97.90

Add contractor's profit and overhead charges 13.615% 13.30

labour component/unit qty (including contractor's profit) **111.20****ABSTRACT:**

A. Cost of Materials		Rs:	6343.48
B. Hire charges of Machinery		Rs:	9851.20
C. Cost of Labour		Rs:	9791.20
	Total	Rs:	25985.88
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	25985.88
E. Add for transportation upto work site @	3%	Rs:	779.58
	Total	Rs:	26765.46
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	3644.12
Total cost for	100.00 sqm	Rs:	30409.57
	Rate per sqm	Rs:	304.10

IRR-GAW-3-2 **painting of embedded metal parts** and all types of gates, stoplogs, etc., on sand blasted surfaces with one coat of inorganic zinc silicate (airless spray preferred) 70+/- 5 and two super coats with a total thickness of 300 microns (each 150+/- 5) of solventless coal tar epoxy paint each coat 150 microns (total 300 microns) cost of all materials, labour, scaffolding etc., complete **with all leads and all lifts**

(Upstream surface of gates portion may be painted with solventless coal tar epoxy brown paint instead of solventless coal tar black. The rate for coal tar epoxy brown shall be adopted in data for Upstream side painting)

DATA:

RATE ANALYSISUNIT : **100 sqm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	inorganic zinc silicate	ltr	12.00	481.00	5772
2	Thinner @ 10%	ltr	1.20	78.00	93.6
3	Solventless Coal tar epoxy paint	ltr	40.00	234.00	9360
4	Thinner @ 10%	ltr	4.00	78.00	312
5	Sundries (brushes, ladders, platforms etc)		3.00	31.00	93
Total cost of Materials				Rs:	15630.60

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of Machinery				Rs:	7395.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	20.00	550.00	11000.00
3	Helper	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	20392.60

labour component/unit qty 203.90

Add contractor's profit and overhead charges 13.615% 27.80

labour component/unit qty (including contractor's profit) **231.70****ABSTRACT:**

A. Cost of Materials		Rs:	15630.60
B. Hire charges of Machinery		Rs:	7395.00
C. Cost of Labour		Rs:	20392.60
	Total	Rs:	43418.20
D. Add for excise duty	0	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	43418.20
E. Add for transportation upto work site @	0.03	Rs:	1302.55
	Total	Rs:	44720.75
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	6088.73
Total cost fc	100.00 sqm	Rs:	50809.48
	Rate per sqm	Rs:	508.10

IRR-GAW-3-3 **painting of Lifting beams, cat walks and other similar structures**-painting hoist machinery, on sand blasted surfaces with two coats of zinc phosphate primer (airless spray preferred) 40microns/coat and two coats of alkyl based micaceous iron oxide paint, 65 microns/coat cost of all materials, labour, scaffolding etc., complete **with all leads and all lifts**

DATA:

RATE ANALYSISUNIT : **100 sqm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	zinc phosphate primer	ltr	28.00	178.00	4984
2	Thinner@10%	ltr	2.80	78.00	218.4
3	alkyl based micaceous iron oxide paint	ltr	20.00	144.00	2880
4	Thinner@10%	ltr	2.00	78.00	156
5	Sundries (brushes, ladders, platforms etc)		3.00	31.00	93
Total cost of Materials				Rs:	8331.40

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of machinery				RS:	7395.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	15.00	550.00	8250.00
3	Helper	Day	15.00	400.00	6000.00
Total cost of Labour				Rs:	15642.60

labour component/unit qty 156.40

Add contractor's profit and overhead charges 13.615% 21.30

labour component/unit qty (including contractor's profit) **177.70**

ABSTRACT:

A. Cost of Materials			Rs:	8331.40
B. Hire charges of Machinery			Rs:	7395.00
C. Cost of Labour			Rs:	15642.60
	Total		Rs:	31369.00
D. Add for excise duty	0		Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total		Rs:	31369.00
E. Add for transportation upto work site @	0.03		Rs:	941.07
	Total		Rs:	32310.07
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	4399.02	4399.02
Total cost for	100.00 sqm		Rs:	36709.09
	Rate per sqm		Rs:	367.10

IRR-GAW-3-4 **HOISTS:STRUCTURAL COMPONENTS--painting structurals on sand blasted surfaces with**

two coats of zinc phosphate primer (airless spray preferred) 40microns/coat
and one coat 65+/-5 of alkyd based micaceous iron oxide paint
followed by two coats of synthetic enamel paint 25 microns/coat
cost of all materials, labour, scaffolding etc., complete with all leads and
all lifts

DATA:

RATE ANALYSISUNIT : **100 sqm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	zinc phosphate primer	ltr	28.00	178.00	4984
2	Thinner@10%	ltr	2.80	78.00	218.4
3	alkyd based micaceous iron oxide paint	ltr	15.00	144.00	2160
4	Thinner@10%	ltr	1.50	78.00	117
5	synthetic enamel paint	ltr	17.00	222.00	3774
6	Thinner@10%	ltr	1.70	78.00	132.6
7	Sundries (brushes,ladders,platforms etc)		3.00	31.00	93
Total cost of Materials				Rs:	11479.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of Machinery				Rs:	7395.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	20.00	550.00	11000.00
3	Helper	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	20392.60

labour component/unit qty 203.90

Add contractor's profit and overhead charges 13.615% 27.80

labour component/unit qty (including contractor's profit) **231.70****ABSTRACT:**

A. Cost of Materials			Rs:	11479.00
B. Hire charges of Machinery			Rs:	7395.00
C. Cost of Labour			Rs:	20392.60
	Total		Rs:	39266.60
D. Add for excise duty	0		Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total		Rs:	39266.60
E. Add for transportation upto work site @	0.03		Rs:	1178.00
	Total		Rs:	40444.60
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	5506.53	5506.53
Total cost for	100.00 sqm		Rs:	45951.13
	Rate per sqm		Rs:	459.50

IRR-GAW-3-5 **HOISTS:machineryCOMPONENTS--painting hoist machinery, on sand blasted surfaces with**

one coats of zinc phosphate primer (airless spray preferred) 50microns/coat
and three coats of aluminium paint or synthetic enamel , 25 microns/coat
cost of all materials, labour, scaffolding etc., complete with all leads and
all lifts

DATA: **RATE ANALYSIS** UNIT : **100 sqm**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	zinc phosphate primer	ltr	14.00	178.00	2492
2	Thinner@10%	ltr	1.40	78.00	109.2
3	aluminium paint or synthetic enamel per coat	ltr	26.00	222.00	5772
4	Thinner@10%	ltr	2.60	78.00	202.8
5	Sundries (brushes,ladders,platforms etc)		3.00	31.00	93
Total cost of Materials				Rs:	8669.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of Machinery				Rs:	7395.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	20.00	550.00	11000.00
3	Helper	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	20392.60

labour component/unit qty 203.90
Add contractor's profit and overhead charges 13.615% 27.80
labour component/unit qty (including contractor's profit) **231.70**

ABSTRACT:

A. Cost of Materials		Rs:	8669.00
B. Hire charges of Machinery		Rs:	7395.00
C. Cost of Labour		Rs:	20392.60
	Total	Rs:	36456.60
D. Add for excise duty	0	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	36456.60
E. Add for transportation upto work site @	0.03	Rs:	1093.70
	Total	Rs:	37550.30
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	5112.47
Total cost for	100.00 sqm	Rs:	42662.77
	Rate per sqm	Rs:	426.60

IRR-GAW-4 **PAINTING WITHOUT SAND BLASTING**IRR-GAW-4-1 **E.M Parts for ALL TYPES OF GATES**

Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaning,applying primary coat with **one** coat of **Protective Mastic** to athickness of 70±5 microns ,followed by finishing coats **2 coats** with Solventless Coal tar epoxy each coat with a DFT of 150±5 microns and total DFT of all coats including Primary coat should not be less than 350 microns with material, labour and all accessories with all leads and lifts
(in respect of Heavily rusted (30 to 40% rusted) surfaces)

DATA:

RATE ANALYSIS

UNIT :

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rust cleaner / inhibitor	ltr	13	111	1443.00
2	Protective Mastic	ltr	25	399	9975.00
3	Thinner@10%	ltr	2.5	78.00	195.00
4	Solventless Coal tar epoxy paint	ltr	40.00	234.00	9360.00
5	Thinner@10%	ltr	4	78.00	312.00
6	Wire brush	Nos	2	36.00	72.00
7	Sundries	LS	3.00	31.00	93.00
Total cost of Materials				Rs:	21450.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of Machinery					7395.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	20.00	550.00	11000.00
3	Helper	Day	20.00	400.00	8000.00
Total cost of Labour				Rs:	20392.60

labour component/unit qty

203.90

Add contractor's profit and overhead charges

13.615% 27.80

labour component/unit qty (including contractor's profit)

231.70

ABSTRACT:

A. Cost of Materials

Rs: 21450.00

B. Hire charges of Machinery

Rs: 7395.00

C. Cost of Labour

Rs: 20392.60

Total

Rs: 49237.60

D. Add for excise duty

0.00%

Rs: 0.00

(on 75 percent cost excluding cost of materials)

Total

Rs: 49237.60

E. Add for transportation upto work site @

3%

Rs: 1477.13

Total

Rs: 50714.73

F. Add for contractor's profit and overheads on

(A+B+C+D+E)

13.615%

Rs: 6904.81

Total cost for

100.00 sqm

Rs: 57619.54

Rate per sq.meter**Rs: 576.20**

IRR-GAW-4-3 HOIST BRIDGES ,HOISTING EQUIPMENT AND CRANES,Etc,

Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaning,applying primary coat with **two** coats of Zinc chromite red oxide primer , followed by finishing coats **3 coats** with synthetic enamel paint with material, labour,and all accessories with all leads and lifts where surface cleaning by sand blasting is not feasible and based on specific recommendations of designers, it is to adopt surface preperation done manually by hand and power tool after cleaning by chemical treatment to remove grease, rust, scaling etc., and to form phosphate coating to prevent further rusting, before applying primer painting.

DATA:

RATE ANALYSIS

UNIT :

100.000 Sq.m

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rust cleaner / inhibitor	ltr	13	111	1443.00
2	Zinc Chromite Red Oxide Primer	ltr	28	144	4032.00
3	Thinner@10%	ltr	2.8	78.00	218.40
4	Synthetic enamel Paint	ltr	17.00	222.00	3774.00
5	Thinner@10%	ltr	1.7	78.00	132.60
6	Wire brush	Nos	2	36.00	72.00

7	Sundries	LS	3.00	31.00	93.00
Total cost of Materials					9765.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of Machinery					7395.00

C. LABOUR

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	20.00	550.00	11000.00
3	Helper	Day	20.00	400.00	8000.00
Total cost of Labour					20392.60

labour component/unit qty 203.90

Add contractor's profit and overhead charges 13.615% 27.80

labour component/unit qty (including contractor's profit) **231.70****ABSTRACT:**

A. Cost of Materials		Rs.	9765.00
B. Hire charges of Machinery		Rs.	7395.00
C. Cost of Labour		Rs.	20392.60
	Total	Rs.	37552.60
D. Add for excise duty	0.00%	Rs.	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs.	37552.60
E. Add for transportation upto work site @	3%	Rs.	1126.58
	Total	Rs.	38679.18
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs.	5266.17
Total cost for	100.00 sqm	Rs.	43945.35
	Rate per sq.meter		439.50

WALK WAYS(CAT WALKS), LIFTING BEAMS,etc,

IRR-GAW-4-4 **Surface cleaning of metal surfaces by chemical cleaners** and then by hand and power tool cleaners and removing dust. After cleaning,applying primary coat with **one** coat of Zinc rich epoxy primer to a thickness of 40 microns ,followed by finishing coats **2 coats** with Solventless Coal tar epoxy with material, labour and all accessories **with all leads and lifts**

DATA:

RATE ANALYSISUNIT : **100.000** Sq.m**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rust cleaner / inhibitor	ltr	13	111	1443.00
2	Zinc rich epoxy primer	ltr	14	559	7826.00
3	Thinner@10%	ltr	1.4	78.00	109.20
4	Solvetnless Coal tar epoxy paint	ltr	40	234	9360.00
5	Thinner@10%	ltr	4	78.00	312.00
6	Wire brush	Nos	2	36	72.00
7	Sundries	LS	3	31	93.00
Total cost of Materials				Rs:	19215.20

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Hire Charges of Airless Spray Gun	Hr	6.00	98.80	592.80
2	Hire Charges of Air Compressor-7 Cmm (diesel)	Hr	6.00	196.30	1177.80
3	Fuel Charges of Air Compressor	Hr	6.00	937.40	5624.40
Total cost of Machinery				Rs:	7395.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew Charges of Air Compressor	Day	6.00	232.10	1392.60
2	Painter Class-I	Day	13.00	550.00	7150.00
3	Helper	Day	13.00	400.00	5200.00
Total cost of Labour				Rs:	13742.60

labour component/unit qty 137.40

Add contractor's profit and overhead charges 13.615% 18.70

labour component/unit qty (including contractor's profit) **156.10****ABSTRACT:**

A. Cost of Materials		Rs:	19215.20
B. Hire charges of Machinery		Rs:	7395.00
C. Cost of Labour		Rs:	13742.60
	Total	Rs:	40352.80
D. Add for excise duty	0.00%	Rs:	0.00
(on 75 percent cost excluding cost of materials)	Total	Rs:	40352.80
E. Add for transportation upto work site @	3%	Rs:	1210.58
	Total	Rs:	41563.38
F. Add for contractor's profit and overheads on (A+B+C+D+E)	13.615%	Rs:	5658.85
Total cost for	100.00 sqm	Rs:	47222.24
	Rate per sq.meter	Rs:	472.20

CHAPTER-VI

PRELIMINARY AND MAINTENANCE WORKS - Standard Data

(STORED WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)

For the Year:2018-19

Index- code
IRR-PMW

PRELIMINARY & MAINTENANCE WORKS - DATA RATES

Directions to add Seigniorage Charges and Additional Lead Charges

Seigniorage Charges:

1. The unit rate for work item in the Standard Data is **exclusive of Seigniorage Charges** wherever applicable.
2. The appropriate Seigniorage Charges for relevant materials are to be added to the Unit rate of work item while preparing the estimate. (i.e., to the data itself)
3. The Provision towards Contractor's Profit and Overhead charges **should not be operated on** the Seigniorage Charges while adding Seigniorage Charges to the data in the estimate

Additional Lead and Lift Charges:

1. Unless otherwise specified the basic rates are inclusive of all lifts.
2. For concrete, masonry and reinforcement items **wherever** initial lead of 1km is considered in the basic rate, the additional lead as follows:
Additional lead charges for Steel, sand, coarse aggregate, stones and stone chips shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.
In case of Cement and Steel, Loading and unloading charges are already added in the work item while arriving the unit rate and hence should not be added again

Example:

Total lead for sand from approved sand quarry :	15 Km
Initial lead included in the basic rate in the SR :	1 Km
Additional lead charges :	
Lead char Rs.	86.40
Lead charges for next 1 Rs.	130
Total lead charges for 1 Rs.	216.40
Less 1 km initial lead ch Rs.	32.40 (-)
Net additional lead char Rs.	184.00

3. The Leads for Steel shall be from the nearest market place to the Project area

4. For earth/rockfill embankments **wherever** initial lead of 1km is considered in the basic rate, the additional lead charges are to be added as follows:
Additional lead charges for Earth, Murrum etc., shall be worked out for total lead involved and 1 km lead charges included in basic rate shall be deducted from total lead charges. No loading and unloading charges shall be allowed for any item.
(same as above)

Example:

Total lead for earth from approved borrow area :	15 Km
Initial lead included in the basic rate in the SR :	1 Km
Additional lead charges :	
Lead char Rs.	86.40
Lead charges for next 1 Rs.	130
Total lead charges for 1 Rs.	216.40
Less 1 km initial lead ch Rs.	32.40 (-)
Net additional lead char Rs.	184.00

5. The initial lead up to 50 m as mentioned in some standard data items is meant for manual lead within the working area.
For conveyance of materials, the lead required from quarry/Borrow area/ Dump Area to worksite shall be added to the data without deducting the 50 m initial lead charges

PMW - Work Items

IRR-PMW-1 JUNGLE CLEARANCE :

IRR-PMW-1-1 **Clearing thin jungle growth (more than 50 percent open space) including bushes upto 30 cm / parthenium and other weeds** including burning or disposing off the same as directed etc., complete.

DATA:

RATE ANALYSIS

UNIT : 1000 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1450.00

labour component/unit qty 1.50
 Add contractor's profit and overhead charges 13.615% 0.20
 labour component/unit qty (including contractor's profit) 1.70

ABSTRACT:

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery			Rs:	0.00
C. Cost of Labour			Rs:	1450.00
	Total		Rs:	1450.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:		197.4175
Total cost for	1000.00 sqm	Rs:		1647.42
Rate per sqm	(A+B+C+D)/1000.0	Rs.		1.60

IRR-PMW-1-2 **Clearing thick jungle growth (less than 50 percent open space) including bushes upto 30 cm / parthenium and other weeds** including burning or disposing off the same as directed etc., complete.

DATA:

RATE ANALYSISUNIT : **1000 sqm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	2250.00

labour component/unit qty 2.30
 Add contractor's profit and overhead charges 13.615% 0.30
 labour component/unit qty (including contractor's profit) **2.60**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	2250.00
	Total	Rs:	2250.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	306.3375
Total cost for	1000.00 sqm	Rs:	2556.34
Rate per sqm	(A+B+C+D)/1000.0	Rs.	2.60

IRR-PMW-1-3 **Removing stumps, tree roots, roots of bamboo clusters etc., upto 1.50 m girth** including excavation, stacking the materials neatly and levelling the surface etc., complete with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSISUNIT : **18 Nos.****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	925.00

labour component/unit qty 51.40
 Add contractor's profit and overhead charges 13.615% 7.00
 labour component/unit qty (including contractor's profit) **58.40**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	925.00
	Total	Rs:	925.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	125.93875
Total cost for	18.00 Nos.	Rs:	1050.94
Rate per each	(A+B+C+D)/18.0	Rs.	58.40

IRR-PMW-1-4 **Removing stumps, tree roots, roots of bamboo cluster etc., with girth above 1.50 m and upto 3.0 m including excavation, stacking the materials neatly and levelling the area etc., complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT : **8 Nos.**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	925.00

labour component/unit qty 115.63
 Add contractor's profit and overhead charges 13.615% 15.74
 labour component/unit qty (including contractor's profit) **131.40**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	925.00
	Total	Rs:	925.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		125.93875
Total cost for	8.00 Nos.	Rs:	1050.90
Rate per each	(A+B+C+D)/8.0	Rs.	131.40

IRR-PMW-1-5 **Removing stumps, tree roots, roots of bamboo cluster etc., with girth above 3.0 m and upto 5.0 m including excavation, stacking the materials neatly and levelling the area etc., complete with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT : **5 Nos.**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	1850.00

labour component/unit qty 370.00
 Add contractor's profit and overhead charges 13.615% 50.40
 labour component/unit qty (including contractor's profit) **420.40**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	1850.00
	Total	Rs:	1850.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		251.8775
Total cost for	5.00 Nos.	Rs:	2101.88
Rate per each	(A+B+C+D)/5.0	Rs.	420.40

IRR-PMW-1-6 **Additional rate for every 0.5 m increase in girth of tree stump / stumps of bamboo cluster beyond 5 m.**

DATA:

RATE ANALYSIS

UNIT :

7 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.22	500.00	110.00
2	mazdoor	Day	0.88	400.00	350.00
Total cost of Labour				Rs:	460.00

labour component/unit qty 65.70

Add contractor's profit and overhead charges 13.615% 8.90

labour component/unit qty (including contractor's profit) **74.60****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 460.00

Total Rs: 460.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 62.629

Total cost for 7.00 Nos. Rs: **522.63****Rate per each** (A+B+C+D)/7.0 Rs: **74.70**

IRR-PMW-1-7 **Cutting and stacking bamboos** excluding removing stumps and roots etc., complete with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSIS

UNIT :

150 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	2250.00

labour component/unit qty 15.00

Add contractor's profit and overhead charges 13.615% 2.04

labour component/unit qty (including contractor's profit) **17.00****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 2250.00

Total Rs: 2250.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 306.3375

Total cost for 150.00 Nos. Rs: **2556.34****Rate per each** (A+B+C+D)/150.0 Rs: **17.00**

IRR-PMW-1-8 **Cutting and removing jauliflora bushes upto 1.5 m girth** excluding removal of stumps and including burning or disposing off the materials as directed with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSIS

UNIT :

100 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1450.00

labour component/unit qty 14.50

Add contractor's profit and overhead charges 13.615% 2.00

labour component/unit qty (including contractor's profit) **16.50****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 1450.00

Total Rs: 1450.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 197.4175

Total cost for 100.00 Nos Rs: **1647.42****Rate per each** (A+B+C+D)/100.0 Rs. **16.50**

IRR-PMW-1-9

Cutting and removing jauliflora bushes above 1.5 m upto 3.0 m girth excluding removal of stumps and including burning or disposing off the materials as directed with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSIS

UNIT :

50 Nos**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1450.00

labour component/unit qty 29.00

Add contractor's profit and overhead charges 13.615% 3.90

labour component/unit qty (including contractor's profit) **32.90****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 1450.00

Total Rs: 1450.00

D. Add for contractor's profit and overheads on (A+B+C) 13.615% Rs: 197.4175

Total cost for 50.00 Nos Rs: **1647.42****Rate per each** (A+B+C+D)/50.0 Rs. **32.90**

IRR-PMW-1-10

Cutting trees above 0.3 m and upto 0.6 m girth excluding removal of stumps and including stacking the materials neatly as directed with initial lead upto 50 m and all lifts.

DATA:

RATE ANALYSIS

UNIT :

14 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of ropes etc	LS	0.25	156.00	39.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	39.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
				0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1325.00

labour component/unit qty 94.60
 Add contractor's profit and overhead charges 13.615% 12.90
 labour component/unit qty (including contractor's profit) **107.50**

ABSTRACT:

A. Cost of Materials		Rs:	39.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	1325.00
Total		Rs:	1364.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		185.7086
Total cost for	14.00 Nos.	Rs:	1549.71
Rate per each	(A+B+C+D)/14.0	Rs.	110.70

IRR-PMW-1-11 **Cutting trees above 0.6 m and upto 1.2 m girth** excluding removal of stumps and including stacking the materials neatly as directed **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **4 Nos.****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of ropes etc	LS	0.25	156.00	39.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	39.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
				0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1325.00

labour component/unit qty 331.30
 Add contractor's profit and overhead charges 13.615% 45.10
 labour component/unit qty (including contractor's profit) **376.40**

ABSTRACT:

A. Cost of Materials		Rs:	39.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	1325.00
Total		Rs:	1364.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		185.7086
Total cost for	4.00 Nos.	Rs:	1549.71
Rate per each	(A+B+C+D)/4.0	Rs.	387.40

IRR-PMW-1-12 **Cutting trees above 1.2 m and upto 1.8 m girth** excluding removal of stumps and including stacking the materials neatly as directed **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **2 Nos.****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of ropes etc	LS	0.25	156.00	39.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	39.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
				0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1325.00

labour component/unit qty 662.50

Add contractor's profit and overhead charges 13.615% 90.20

labour component/unit qty (including contractor's profit) **752.70****ABSTRACT:**

A. Cost of Materials Rs: 39.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 1325.00

Total Rs: 1364.00

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 185.7086

Total cost for 2.00 Nos. Rs: **1549.71****Rate per each** (A+B+C+D)/2.0 Rs. **774.90**

IRR-PMW-1-13 **Cutting trees above 1.8 m and upto 2.4 m girth** excluding removal of stumps and including stacking the materials neatly as directed **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

1 No.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of ropes etc	LS	0.25	156.00	39.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	39.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	1325.00

labour component/unit qty 1325.00

Add contractor's profit and overhead charges 13.615% 180.40

labour component/unit qty (including contractor's profit) **1505.40****ABSTRACT:**

A. Cost of Materials Rs: 39.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 1325.00

Total Rs: 1364.00

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 185.7086

Total cost for 1.00 No. Rs: **1549.71****Rate per each** (A+B+C+D)/1.0 Rs. **1549.70**

IRR-PMW-1-14 **Cutting trees above 2.4 m and upto 3.0 m girth** excluding removal of stumps and including stacking the materials neatly as directed **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

1 Nos.**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of ropes etc	LS	0.50	156.00	78.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	78.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.25	500.00	125.00
2	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	2125.00

labour component/unit qty 2125.00
 Add contractor's profit and overhead charges 13.615% 289.30
 labour component/unit qty (including contractor's profit) **2414.30**

ABSTRACT:

A. Cost of Materials		Rs:	78.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	2125.00
	Total	Rs:	2203.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	299.93845
Total cost for	1.00 Nos.	Rs:	2502.94
Rate per each	(A+B+C+D)/1.0	Rs.	2502.90

IRR-PMW-1-15 **Additional rate for cutting tree for every 0.5 m increase in girth of tree beyond 3 m.**

DATA:

RATE ANALYSIS

UNIT :

1 No**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of ropes etc	LS	0.15	156.00	23.40
			0.00	0.00	0.00
Total cost of Materials				Rs:	23.40

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.10	500.00	50.00
2	mazdoor	Day	1.75	400.00	700.00
Total cost of Labour				Rs:	750.00

labour component/unit qty 750.00
 Add contractor's profit and overhead charges 13.615% 102.10
 labour component/unit qty (including contractor's profit) **852.10**

ABSTRACT:

A. Cost of Materials		Rs:	23.40
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	750.00
	Total	Rs:	773.40
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	105.29841
Total cost for	1.00 No	Rs:	878.70
Rate per each	(A+B+C+D)/1.0	Rs.	878.70

IRR-PMW-1-16 **Cutting and burning or disposing off Apu / Jondu from marshy areas as directed with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSIS

UNIT :

1000 sqm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	12.00	400.00	4800.00
Total cost of Labour				Rs:	5300.00

labour component/unit qty 5.30
 Add contractor's profit and overhead charges 13.615% 0.70
 labour component/unit qty (including contractor's profit) **6.00**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	5300.00
	Total	Rs:	5300.00

D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	721.595
Total cost for 1000.00 sqm	Rs:	6021.60
Rate per sqm	(A+B+C+D)/1000.0 Rs.	6.00

IRR-PMW-2 **PRELIMINARY WORKS :**

IRR-PMW-2-1 **Earthwork excavation for trial pits / borrow pits** and other investigation works in all kinds of soil including boulders **upto 30 cm dia** and disposing off excavated soil as directed with lead **upto 10 m and lift upto 3 m.**

DATA: **RATE ANALYSIS** UNIT : **10 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	2650.00

labour component/unit qty 265.00
 Add contractor's profit and overhead charges 13.615% 36.08
 labour component/unit qty (including contractor's profit) **301.10**

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2650.00
Total	Rs:	2650.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	360.7975
Total cost for 10.00 cum	Rs:	3010.80
Rate per cum	(A+B+C+D)/100.0 Rs.	301.10

IRR-PMW-2-2 **Earthwork excavation for trial pits / borrow pits** and other investigation works in **soft rock** including disposing off the excavated rock as directed with **lead upto 10 m and lift upto 3 m.**

DATA: **RATE ANALYSIS** UNIT : **10 cum**

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	0.50	500.00	250.00
2	Crowbarman	Day	1.00	440.00	440.00
3	mazdoor	Day	7.50	400.00	3000.00
Total cost of Labour				Rs:	3690.00

labour component/unit qty 369.00
 Add contractor's profit and overhead charges 13.615% 50.20
 labour component/unit qty (including contractor's profit) **419.20**

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	3690.00
Total	Rs:	3690.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	502.3935
Total cost for 10.00 cum	Rs:	4192.39
Rate per cum	(A+B+C+D)/10.0 Rs.	419.20

IRR-PMW-2-3

Conducting geophysical investigation studies by electrical resistivity method in stages of 5m for sub-surface details such as depth of formations, shear zones, classification of strata, depth of water table etc., including cost of all materials, equipments, labour, analysing and reporting the details of field studies conducted etc., complete excluding cost of transportation arrangements.

DATA:

RATE ANALYSIS

UNIT :

20 Stages**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sundries (misc. consumables)		5.00	31.00	155.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	155.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Electric resistivity meter	Hour	8.00	90.60	724.80
	Battery / charging cost etc @	20%			144.96
Total hire charges of Machinery				Rs:	869.76

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Geophysist / Geologist	Day	2.00	935.00	1870.00
2	Graduate Engineer	Day	1.00	935.00	935.00
3	Lab Assistant	Day	1.00	560.00	560.00
4	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	4965.00

labour component/unit qty 248.30

Add contractor's profit and overhead charges 13.615% 33.80

labour component/unit qty (including contractor's profit) **282.10****ABSTRACT:**

A. Cost of Materials Rs: 155.00

B. Hire charges of Machinery Rs: 869.76

C. Cost of Labour Rs: 4965.00

Total Rs: 5989.76

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 815.505824

Total cost for 20.00 Stages Rs: **6805.27****Rate per stage** (A+B+C+D)/20.0 Rs. **340.30**

IRR-PMW-2-4

Drilling 80 mm dia hole through over-burden using casing shoe bit vertical or inclined upto 10 degrees to vertical as directed including cost of all materials, machinery, labour, water charges, reaming, collection of wash samples at suitable intervals, logging and labelling, supplying honne wood core box, fixing casing pipes (excluding cost of casing pipes) etc., **complete for depth upto 30 m from surface.**

Note: 1. For drilling through over-burden beyond 30 m from surface increase the basic rate per Rm by 10 percent.

Data:

RATE ANALYSIS

UNIT :

3.00 Rm**A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of casing shoe bit	Rm	3.00	116.44	349.33
2	Use rate of reamer shell	Rm	3.00	28.56	85.67
3	Use rate of extension rod set 16.5 m	Rm	3.00	1.55	4.65
4	Use rate of honne core box	Rm	3.00	192.14	576.41
Total cost of Materials				Rs:	1016.07

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Core drilling machine	Hour	1.00	259.50	259.50
	Fuel / Energy charges	Hour	1.00	312.50	312.50
2	5 hp pump (diesel) 2 Nos.	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
3	Sundries (samplers etc)	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	859.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Core drilling machine	Hour	1.00	308.90	308.90
2	Crew for Pump	Hour	2.00	122.30	244.60
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	1353.50

labour component/unit qty 451.20

Add contractor's profit and overhead charges 13.615% 61.40

labour component/unit qty (including contractor's profit) **512.60****ABSTRACT:**

A. Cost of Materials Rs: 1016.07

B. Hire charges of Machinery Rs: 859.00

C. Cost of Labour Rs: 1353.50

Total Rs: 3228.57

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 439.569363

Total cost for 3.00 Rm Rs: **3668.14****Rate per Rm** (A+B+C+D)/3.0 Rs. **1222.70**

IRR-PMW-2-5 **Drilling 76 mm dia (NX) core hole in hard rock using diamond core bit** vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, collection of core samples, logging and labelling, supplying honne wood core box and redrilling in case of collapse of sides etc., **complete for depth upto 30 m from surface.**

Data:

RATE ANALYSISUNIT : **3.00 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of diamond core bit	Rm	3.00	846.67	2540.00
2	Use rate of reamer shell	Rm	3.00	85.67	257.00
3	Use rate of double tube core barrel	Rm	3.00	225.67	677.00
4	Use rate of extension rod set 16.5 m	Rm	3.00	20.68	62.04
5	Use rate of honne core box	Rm	3.00	432.31	1296.93
Total cost of Materials				Rs:	4832.97

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Core drilling machine	Hour	8.00	259.50	2076.00
	Fuel / Energy charges	Hour	8.00	312.50	2500.00
2	5 hp pump (diesel) 2 Nos.	Hour	16.00	8.30	132.80
	Fuel / Energy charges	Hour	16.00	104.20	1667.20
3	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	6531.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Core drilling machine	Hour	8.00	308.90	2471.20
2	Crew for Pump	Hour	16.00	122.30	1956.80
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	5228.00

labour component/unit qty 1742.70
 Add contractor's profit and overhead charges 13.615% 237.30
 labour component/unit qty (including contractor's profit) **1980.00**

ABSTRACT:

A. Cost of Materials	Rs:	4832.97
B. Hire charges of Machinery	Rs:	6531.00
C. Cost of Labour	Rs:	5228.00
Total	Rs:	<u>16591.97</u>
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	2258.996843
Total cost for	3.00 Rm Rs:	18850.97
Rate per Rm	(A+B+C+D)/3.0 Rs:	6283.70

NOTE: 1. For drilling in hard rock beyond 30 m upto 60 m from surface increase the basic rate per Rm by 25 percent.
 2. For drilling in hard rock beyond 60 m upto 90 m from surface increase the basic rate per Rm by 40 percent.

IRR-PMW-2-5-A
 New Item 2015-16-5

Drilling 76 mm dia (NX) core hole in all types of rocks (other than Hard Rock) including Masonry/CC (where drilling is not possible by casing shoe) using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface for Primary and Secondary Holes

Data:

RATE ANALYSISUNIT : **3.00 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of diamond core bit	Rm	3.00	1201.51	3604.54
2	Use rate of reamer shell	Rm	3.00	51.40	154.20
4	Use rate of extension rod set 16.5 m	Rm	3.00	12.41	37.22
Total cost of Materials				Rs:	3795.97

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Core drilling machine	Hour	4.78	259.50	1239.37
	Fuel / Energy charges	Hour	4.78	312.50	1492.50
2	5 hp pump (diesel) 2 Nos.	Hour	9.55	8.30	79.28
	Fuel / Energy charges	Hour	9.55	104.20	995.32
3	Sundries	LS	2.99	31.00	92.69
Total hire charges of Machinery				Rs:	3899.16

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Core drilling machine	Hour	4.78	308.90	1475.31
2	Crew for Pump	Hour	9.55	122.30	1167.97
3	mazdoor	Day	1.19	400.00	476.00
Total cost of Labour				Rs:	3119.27

labour component/unit qty	1039.80
Add contractor's profit and overhead charges	13.615% 141.60
labour component/unit qty (including contractor's profit)	1181.40

ABSTRACT:

A. Cost of Materials		Rs:	3795.97
B. Hire charges of Machinery		Rs:	3899.16
C. Cost of Labour		Rs:	3119.27
	Total	Rs:	10814.40
D. Add for contractor's profit and overheads	13.615%	Rs:	1472.380363
Total cost for	3.00 Rm	Rs:	12286.78
Rate per Rm	(A+B+C+D)/3.0	Rs.	4095.60

- NOTE: 1. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 30 m upto 60 m from surface increase the basic rate per Rm by 25 percent.
2. For drilling in all types of rocks (other than hard rock) including masonry/CC m from surface increase the basic beyond 60 m upto 90 rate per Rm by 40 percent.

IRR-PMW-2-5-B
New Item 2015-16-
6

Drilling 76 mm dia (NX) core hole in all types of rocks (other than Hard Rock) including Masonry/CC (where drilling is not possible by casing shoe) using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, collection of core samples, logging and labelling, supplying honne wood core box and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface for Test Holes

Data:

RATE ANALYSISUNIT : **3.00 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of diamond core bit	Rm	3.00	1201.51	3604.54
2	Use rate of reamer shell	Rm	3.00	51.40	154.20
3	Use rate of double tube core barrel	Rm	3.00	135.40	406.20
4	Use rate of extension rod set 16.5 m	Rm	3.00	12.41	37.22
5	Use rate of honne core box	Rm	3.00	432.31	1296.93
Total cost of Materials				Rs:	5499.10

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Core drilling machine	Hour	4.78	259.50	1239.37
	Fuel / Energy charges	Hour	4.78	312.50	1492.50
2	5 hp pump (diesel) 2 Nos.	Hour	9.55	8.30	79.28
	Fuel / Energy charges	Hour	9.55	104.20	995.32
3	Sundries	LS	2.99	31.00	92.69
Total hire charges of Machinery				Rs:	3899.16

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Core drilling machine	Hour	4.78	308.90	1475.31
2	Crew for Pump	Hour	9.55	122.30	1168.21
3	mazdoor	Day	1.19	400.00	477.60
Total cost of Labour				Rs:	3121.12

labour component/unit qty	1040.40
Add contractor's profit and overhead charges	13.615% 141.70
labour component/unit qty (including contractor's profit)	1182.10

ABSTRACT:

A. Cost of Materials		Rs:	5499.10
B. Hire charges of Machinery		Rs:	3899.16
C. Cost of Labour		Rs:	3121.12
	Total	Rs:	12519.37
D. Add for contractor's profit and overheads	13.615%	Rs:	1704.512783
Total cost for	3.00 Rm	Rs:	14223.89
Rate per Rm	(A+B+C+D)/3.0	Rs.	4741.30

- NOTE: 1. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 30 m upto 60 m from surface increase the basic rate per Rm by 25 percent.
2. For drilling in all types of rocks (other than hard rock) including masonry/CC m from surface increase the basic beyond 60 m upto 90 rate per Rm by 40 percent.

IRR-PMW-2-6

Drilling 47 mm (BX)dia core hole in hard rock using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, collection of core samples, logging, labelling, supplying honne wood core box and redrilling in case of collapse of sides etc., complete for depth upto 30 m from surface.

Data:

RATE ANALYSISUNIT : **3.00 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of diamond core bit	Rm	3.00	705.33	2116.00
2	Use rate of reamer shell	Rm	3.00	85.67	257.00
3	Use rate of double tube core barrel	Rm	3.00	225.67	677.00
4	Use rate of extension rod set 16.5 m	Rm	3.00	20.68	62.04
5	Use rate of honne core box	Rm	3.00	432.31	1296.93
Total cost of Materials				Rs:	4408.97

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Core drilling machine	Hour	8.00	259.50	2076.00
	Fuel / Energy charges	Hour	8.00	312.50	2500.00
2	5 hp pump (diesel) 2 Nos.	Hour	16.00	8.30	132.80
	Fuel / Energy charges	Hour	16.00	104.20	1667.20
3	Sundries	LS	5.00	31.00	155.00
Total hire charges of Machinery				Rs:	6531.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Core drilling machine	Hour	8.00	308.90	2471.20
2	Crew for Pump	Hour	16.00	122.30	1956.80
3	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	5228.00

labour component/unit qty 1742.70

Add contractor's profit and overhead charges 13.615% 237.30

labour component/unit qty (including contractor's profit) **1980.00****ABSTRACT:**

A. Cost of Materials	Rs:	4408.97
B. Hire charges of Machinery	Rs:	6531.00
C. Cost of Labour	Rs:	5228.00
Total	Rs:	16167.97

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 2201.269243

Total cost for 3.00 Rm Rs: **18369.24****Rate per Rm (A+B+C+D)/3.0 Rs. **6123.10****

- NOTE: 1. For drilling in hard rock beyond 30 m upto 60 m from surface increase the basic rate for drilling upto 30 m from surface by 25 percent per Rm.
 2. For drilling in hard rock beyond 60 m upto 90 m from surface increase the basic rate for drilling upto 30 m from surface by 40 percent per Rm.

IRR-PMW-2-6-A
 New Item 2015-16-
 7

Drilling 47 mm (BX) dia core hole in all types of rocks (other than Hard Rock) including Masonry/CC (where drilling is not possible by casing shoe) using diamond core bit vertical / inclined upto 10 degree to vertical as directed including cost of all materials, machinery, labour, water charges, and redrilling in case of collapse of sides etc., complete for depth upto 30 m

DATA: For drilling upto 30 m from surface the rate of drilling is assumed at 3 m per day for analysis.

For rate analysis combination of diamond bit and reamer shell is assumed.

500 m long 25 mm dia GI pipe line and 50 m long 25 mm dia water hose are assumed.

For 30 m drilling average 16.5 m extension rods with coupling sleeves required.

Use rate of materials :

Cost of BX diamond core bit @	Rs: 10580.00 / Each	Rs: 10580.00
Life of diamond core bit in all types of rock (other than hard rock)	:	10.57 m
Use rate of diamond core bit per m drilling (cost / life)	:	Rs: 1000.95
Cost of reamer shell @	Rs: 5140.00 / Each	Rs: 5140.00
Life of reamer shell in all types of rock (other than hard rock)	:	100 m
Use rate of reamer shell per m drilling (cost / life)	:	Rs: 51.40
Cost of 16.5 m extension rod @	Rs: 1880.00 / Rm	Rs: 31020.00
Life of extension rods	:	2500 m
Use rate of 16.5 m length extension rods (cost / life)	:	Rs: 12.41

Data:

RATE ANALYSISUNIT : **3.00 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Use rate of diamond core bit	Rm	3.00	1000.95	3002.84
2	Use rate of reamer shell	Rm	3.00	51.40	154.20
4	Use rate of extension rod set 16.5 m	Rm	3.00	12.41	37.22
Total cost of Materials				Rs:	3194.26

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Core drilling machine	Hour	4.78	259.50	1239.37
	Fuel / Energy charges	Hour	4.78	312.50	1492.50
2	5 hp pump (diesel) 2 Nos.	Hour	9.55	8.30	79.28
	Fuel / Energy charges	Hour	9.55	104.20	995.32
3	Sundries	LS	2.99	31.00	92.69
Total hire charges of Machinery				Rs:	3899.16

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Core drilling machine	Hour	4.78	308.90	1475.31
2	Crew for Pump	Hour	9.55	122.30	1167.97
3	mazdoor	Day	1.19	400.00	476.00
Total cost of Labour				Rs:	3119.27

labour component/unit qty 1039.80

Add contractor's profit and overhead charges 13.615% 141.60

labour component/unit qty (including contractor's profit) **1181.40**

ABSTRACT:

A. Cost of Materials		Rs:	3194.26
B. Hire charges of Machinery		Rs:	3899.16
C. Cost of Labour		Rs:	3119.27
	Total	Rs:	10212.70
D. Add for contractor's profit and overheads	13.615%	Rs:	1390.458509
Total cost for	3.00 Rm	Rs:	11603.15
Rate per Rm	(A+B+C+D)/3.0	Rs.	3867.70

NOTE: 1. For drilling in all types of rocks (other than hard rock) including masonry/CC beyond 30 m upto 60 m from surface increase the basic rate per Rm by 25 percent.
 2. For drilling in all types of rocks (other than hard rock) including masonry/CC m from surface increase the basic beyond 60 m upto 90 rate per Rm by 40 percent.

IRR-PMW-2-7 Providing and **fixing 20 x 20 x 75 cm size roughly dressed boundary / demarcation / chainage / arrow stones** including cost of all materials, labour, engraving marks, fixing in position, murum filling etc., complete **with lead upto 50 m and all lifts.**

Data:

RATE ANALYSISUNIT : **18 Nos.****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rough stone 20x20x75 cm	Each	18.00	22.00	396.00
2	Murum	cum	1.00	185.00	185.00
Total cost of Materials				Rs:	581.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Stone chiseller Cl- I	Day	1.00	490.00	490.00
3	mazdoor	Day	3.00	400.00	1200.00
Total cost of Labour				Rs:	2190.00

labour component/unit qty 121.70
 Add contractor's profit and overhead charges 13.615% 16.60
 labour component/unit qty (including contractor's profit) **138.30**

ABSTRACT:

A. Cost of Materials		Rs:	581.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	2190.00
	Total	Rs:	2771.00
D. Add for contractor's profit and overheads	13.615%	Rs:	377.27165
on (A+B+C)			
Total cost for	18.00 Nos.	Rs:	3148.27
Rate per each	(A+B+C+D)/18.0	Rs.	174.90

IRR-PMW-2-8 Providing and **fixing 20 x 20 x 75 cm size temporary bench mark stone in CC 1 : 4 : 8** using **40 mm down size** graded coarse aggregate including cost of all materials, labour, dressing top surface, engraving BM data etc., complete **with lead upto 50 m and all lifts.**

Data:

RATE ANALYSISUNIT : **10 Nos.****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rough stone 20x20x75 cm	Each	10.00	22.00	220.00
2	Cement for CC & top finishing	kg	91.00	3.88	353.26
3	Coarse aggregate 40-20 mm	cum	0.25	1133.00	283.25
	Coarse aggregate 20-10 mm	cum	0.15	1182.00	177.30
	Coarse aggregate 10-4.75 mm	cum	0.10	860.00	86.00
4	Sand (Un-Screened)	cum	0.25	100.00	25.00
Total cost of Materials				Rs:	1144.81

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Stone chiseller Cl- I	Day	3.00	490.00	1470.00
3	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	3570.00

labour component/unit qty 357.00
 Add contractor's profit and overhead charges 13.615% 48.60
 labour component/unit qty (including contractor's profit) **405.60**

ABSTRACT:

A. Cost of Materials		Rs:	1144.81
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	3570.00
	Total	Rs:	4714.81
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		641.9216538
Total cost for	10.00 Nos.	Rs:	5356.73
Rate per each	(A+B+C+D)/10.0	Rs.	535.70

NOTE: For providing 30 cm thick compacted murum bed in B.C soil area including additional excavation for thickness of murum bedding add |Each Rs: 4.00

IRR-PMW-2-9 Providing and **fixing 20 x 20 x 75 cm size permanent bench mark stone in CC 1 : 3 : 6** block of size 90 x 90 x 120 cm using **40 mm down size** graded coarse aggregate and providing 35 cm thick 30 cm high UCR masonry in CM 1 : 5 proportion protective wall around the BM stone, including cost of all materials, labour, dressing top surface of stone, engraving BM data on top surface, excavation, finishing, curing etc., complete **with lead upto 50 m and all lifts.**

Data:

RATE ANALYSIS

UNIT : 1 No.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rough stone 20x20x75 cm	Each	1.00	22.00	22.00
2	Cement	kg	262.00	3.88	1017.08
3	Coarse aggregate 40-20 mm	cum	0.50	1133.00	566.50
	Coarse aggregate 20-10 mm	cum	0.30	1182.00	354.60
	Coarse aggregate 10-4.75 mm	cum	0.20	860.00	172.00
4	Rubble stone at quarry	cum	0.25	303.00	75.75
5	Stone chips at quarry	cum	0.04	333.00	13.32
6	Sand (Un-Screened)	cum	0.60	100.00	60.00
Total cost of Materials				Rs:	2281.25

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Stone chiseller CI- I	Day	0.50	490.00	245.00
3	Mason CI- II	Day	1.00	440.00	440.00
4	mazdoor	Day	5.00	400.00	2000.00
Total cost of Labour				Rs:	3185.00

labour component/unit qty 3185.00

Add contractor's profit and overhead charges 13.615% 433.60

labour component/unit qty (including contractor's profit) **3618.60****ABSTRACT:**

A. Cost of Materials		Rs:	2281.25
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	3185.00
	Total	Rs:	5466.25
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		744.2304821
Total cost for	1.00 No.	Rs:	6210.48
Rate per each	(A+B+C+D)/1.0	Rs.	6210.50

IRR-PMW-3

MAINTENANCE WORKS :

IRR-PMW-3-1

Removing dry stone rock-toe / rivetment and filter layers below rock-toe/ rivetment including stacking all materials separately as directed **with initial lead upto 50 m and all lifts.**

Data:

RATE ANALYSIS

UNIT : 105 cum

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason CI- II	Day	6.00	440.00	2640.00
3	mazdoor	Day	48.00	400.00	19200.00
Total cost of Labour				Rs:	22340.00

labour component/unit qty 212.80

Add contractor's profit and overhead charges 13.615% 29.00

labour component/unit qty (including contractor's profit) **241.80**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	22340.00
	Total	Rs:	22340.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		3041.591
Total cost for	105.00 cum	Rs:	25381.59
Rate per cum	(A+B+C+D)/105.0	Rs.	241.70

IRR-PMW-3-2

Re-constructing 60 cm thick hand packed rough stone revetment with through stones at 1.5 m c / c over a backing of 45 cm thick graded filter media consisting of sand, 10 mm and 40 mm size graded aggregates satisfying filter criteria laid in layers of 15 cm thick each using sand from approved quarry and stones and filter aggregates obtained from revetment removed for re-construction including cost of all machinery, labour, laying filter and stones to specified slopes, wedging with chips, finishing etc. complete with initial lead upto 50 m and all lifts.

Data:

RATE ANALYSISUNIT : **100 sqm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Sand (Un-Screened) (from quarry)	cum	15.30	100.00	1530.00
2	Coarse aggregate 10 mm (available)	cum	15.30	0.00	0.00
3	Coarse aggr. 40-20 mm (available)	cum	15.30	0.00	0.00
4	Stone chips (available)	cum	9.00	0.00	0.00
5	Rough stones (available)	cum	57.60	0.00	0.00
6	Through stones (available)	Nos	44.00	0.00	0.00
Total cost of Materials				Rs:	1530.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason CI- II	Day	5.00	440.00	2200.00
3	mazdoor	Day	33.00	400.00	13200.00
Total cost of Labour				Rs:	15900.00

labour component/unit qty 159.00
 Add contractor's profit and overhead charges 13.615% 21.60
 labour component/unit qty (including contractor's profit) **180.60**

ABSTRACT:

A. Cost of Materials		Rs:	1530.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	15900.00
	Total	Rs:	17430.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:		2373.0945
Total cost for	100.00 sqm	Rs:	19803.09
Rate per sqm	(A+B+C+D)/100.0	Rs.	198.00

IRR-PMW-3-3

Re-constructing dry rubble rock-toe and filter media for rock-toe consisting of sand 20 mm and 80 mm size graded aggregates satisfying filter criteria laid in layers of 15 cm thick each using sand from approved quarry and stones and filter aggregates obtained from rock-toe removed for re-construction including cost of all machinery, labour, laying filter and stones to specified slopes, wedging with chips, finishing etc. complete with initial lead upto 50 m and all lifts.

Data:

RATE ANALYSISUNIT : **100 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rubble (available)	cum	58.20	0.00	0.00
2	Stone chips (available)	cum	8.70	0.00	0.00
3	80-20 mm filter (available)	cum	19.40	0.00	0.00
4	20 mm down filter (available)	cum	12.10	0.00	0.00
5	Sand (Un-Screened) (fresh from quarry)	cum	9.80	100.00	980.00
Total cost of Materials				Rs:	980.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Cl- II	Day	7.00	440.00	3080.00
3	mazdoor	Day	48.00	400.00	19200.00
Total cost of Labour				Rs:	22780.00

labour component/unit qty 227.80

Add contractor's profit and overhead charges 13.615% 31.00

labour component/unit qty (including contractor's profit) **258.80****ABSTRACT:**

A. Cost of Materials Rs: 980.00

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 22780.00

Total Rs: 23760.00

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 3234.924

Total cost for 100.00 cum Rs: **26994.92****Rate per cum (A+B+C+D)/100.0 Rs. 269.90**

IRR-PMW-3-4 **Removing and resetting disturbed Yarguntla / Shahabad / Talikot / PCC / Other types of slab lining set in CM 1 : 3 including flush cement mortar pointing in CM 1 : 3 with lead upto 50 m and all lifts.**

Data:

RATE ANALYSIS

UNIT : 100 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement 43 Gr	kg	101.00	3.88	392.08
2	Sand (Screened)	cum	0.21	182.00	38.22
Total cost of Materials				Rs:	430.30

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class I	Day	4.00	475.00	1900.00
3	mazdoor	Day	6.00	400.00	2400.00
4	Cartman with Double Bullock cart for water	Day	1.00	500.00	500.00
Total cost of Labour				Rs:	5300.00

labour component/unit qty 53.00

Add contractor's profit and overhead charges 13.615% 7.20

labour component/unit qty (including contractor's profit) **60.20****ABSTRACT:**

A. Cost of Materials Rs: 430.30

B. Hire charges of Machinery Rs: 0.00

C. Cost of Labour Rs: 5300.00

Total Rs: 5730.30

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 780.1806173

Total cost for 100.00 sqm Rs: **6510.48****Rate per sqm (A+B+C+D)/100.0 Rs. 65.10**

IRR-PMW-3-5 **Removing and resetting disturbed dry rubble / khandki stone pitching 25 to 45 cm thick including packing, wedging, finishing etc., complete with all leads and lifts.**

Data:

RATE ANALYSIS

UNIT : 100 sqm

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	Mason Class II	Day	6.00	440.00	2640.00
3	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	5540.00

labour component/unit qty 55.40
 Add contractor's profit and overhead charges 13.615% 7.50
 labour component/unit qty (including contractor's profit) **62.90**

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 0.00
 C. Cost of Labour Rs: 5540.00
Total Rs: 5540.00

D. Add for contractor's profit and overheads
 on (A+B+C) 13.615% Rs: 754.271
 Total cost for 100.00 sqm Rs: **6294.27**
Rate per sqm (A+B+C+D)/100.0 Rs: **62.90**

IRR-PMW-3-6 **Removing and refixing disturbed chainage / demarcation / hectometre / guard stones**
 including excavation, back filling etc., complete **with all leads and lifts.**

DATA:

RATE ANALYSIS

UNIT : 18 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	1300.00

labour component/unit qty 72.22
 Add contractor's profit and overhead charges 13.615% 9.83
 labour component/unit qty (including contractor's profit) **82.10**

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 0.00
 C. Cost of Labour Rs: 1300.00
Total Rs: 1300.00

D. Add for contractor's profit and overheads
 on (A+B+C) 13.615% Rs: 176.995
 Total cost for 18.00 Nos. Rs: **1477.00**
Rate per each (A+B+C+D)/18.0 Rs: **82.10**

IRR-PMW-3-7 **Removing and refixing disturbed km stone / sign board / hecto-metre stone etc.,** including excavation, back filling with available stuff after refixing, forming base platform of size 90 x 90 x 7.5 cm including watering, ramming etc complete **with all leads and lifts.**

DATA:

RATE ANALYSIS

UNIT : 8 Nos.

A. MATERIALS:

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	1300.00

labour component/unit qty 162.50
 Add contractor's profit and overhead charges 13.615% 22.12
 labour component/unit qty (including contractor's profit) **184.60**

ABSTRACT:

A. Cost of Materials Rs: 0.00
 B. Hire charges of Machinery Rs: 0.00
 C. Cost of Labour Rs: 1300.00
Total Rs: 1300.00

D. Add for contractor's profit and overheads
 on (A+B+C) 13.615% Rs: 176.995
 Total cost for 8.00 Nos. Rs: **1477.00**

Rate per each (A+B+C+D)/18.0 Rs. **184.60**

IRR-PMW-3-8

Providing impervious hearning for breached / damaged portion of embankment with soil from **approved borrow areas** in layers of **10 to 15 cm** before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of **not less than 98 percent** or as stipulated **by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.**

Data:

RATE ANALYSISUNIT : **480 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer	Hour	5.00	1395.70	6978.50
	Fuel / Energy charges	Hour	5.00	801.50	4007.50
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 4 Nos.	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (diesel)	Hour	2.00	8.30	16.60
	Fuel / Energy charges	Hour	2.00	104.20	208.40
5	Water tanker 8000 ltr	Hour	4.00	359.00	1436.00
	Fuel / Energy charges	Hour	4.00	393.70	1574.80
6	Vibratory pad foot roller 8 tonne	Hour	6.00	1092.00	6552.00
	Fuel / Energy charges	Hour	6.00	1354.00	8124.00
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	64718.20

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	4.00	257.40	1029.60
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	5.00	193.10	965.50
6	Crew for Roller	Hour	6.00	290.20	1741.20
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	14941.60

labour component/unit qty 31.10

Add contractor's profit and overhead charges 13.615% 4.20

labour component/unit qty (including contractor's profit) **35.30****ABSTRACT:**

A. Cost of Materials Rs: 0.00

B. Hire charges of Machinery Rs: 64718.20

C. Cost of Labour Rs: 14941.60

Total Rs: 79659.80

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 10845.68177

Total cost for 480.00 cum Rs: **90505.48****Rate per cum** (A+B+C+D)/480.0 Rs. **188.60**

IRR-PMW-3-9

Providing pervious/semi-pervious casing for breached / damaged portion of embankment with soil from **approved borrow areas** in layers of **10 to 15 cm** before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by rolling or by using mechanical tampers etc., complete **with initial lead upto 1 km and all lifts.**

Data:

RATE ANALYSISUNIT : **325 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.50	1395.70	4884.95
	Fuel / Energy charges	Hour	3.50	801.50	2805.25
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tippers 5.00 cum capacity 3 Nos.	Hour	24.00	363.50	8724.00
	Fuel / Energy charges	Hour	24.00	393.70	9448.80
4	Pump 5 hp (diesel)	Hour	1.50	8.30	12.45
	Fuel / Energy charges	Hour	1.50	104.20	156.30
5	Water tanker 8000 ltr	Hour	3.00	359.00	1077.00
	Fuel / Energy charges	Hour	3.00	393.70	1181.10
6	Vibratory pad foot roller 8 tonne	Hour	4.00	1092.00	4368.00
	Fuel / Energy charges	Hour	4.00	1354.00	5416.00
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	49663.85

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.50	257.40	900.90
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	24.00	193.10	4634.40
4	Crew for Pump	Hour	1.50	122.30	183.45
5	Crew for Water tanker	Hour	3.00	193.10	579.30
6	Crew for Roller	Hour	4.00	290.20	1160.80
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	12118.05

labour component/unit qty 37.30

Add contractor's profit and overhead charges 13.615% 5.10

labour component/unit qty (including contractor's profit) **42.40****ABSTRACT:**

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	49663.85
C. Cost of Labour	Rs:	12118.05
Total	Rs:	61781.90

D. Add for contractor's profit and overheads

on (A+B+C) 13.615% Rs: 8411.605685

Total cost for 325.00 cum Rs: **70193.51****Rate per cum** (A+B+C+D)/325.0 Rs. **216.00**

IRR-PMW-3-10

Providing impervious hearting for breached / damaged portion of embankment with soil from approved dump areas in layers of 10 to 15 cm before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of not less than 98 percent or as stipulated by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.

Data:

RATE ANALYSISUNIT : **612 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer	Hour	4.00	1395.70	5582.80
	Fuel / Energy charges	Hour	4.00	801.50	3206.00
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tippers 5.00 cum capacity 5 Nos.	Hour	40.00	363.50	14540.00
	Fuel / Energy charges	Hour	40.00	393.70	15748.00
4	Pump 5 hp (diesel)	Hour	4.00	8.30	33.20
	Fuel / Energy charges	Hour	4.00	104.20	416.80
5	Water tanker 8000 ltr	Hour	7.00	359.00	2513.00
	Fuel / Energy charges	Hour	7.00	393.70	2755.90
6	Vibratory pad foot roller 8 tonne	Hour	7.50	1092.00	8190.00
	Fuel / Energy charges	Hour	7.50	1354.00	10155.00
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	74730.70

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	4.00	257.40	1029.60
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	40.00	193.10	7724.00
4	Crew for Pump	Hour	4.00	122.30	489.20
5	Crew for Water tanker	Hour	7.00	193.10	1351.70
6	Crew for Roller	Hour	7.50	290.20	2176.50
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	18230.20

labour component/unit qty 29.80
 Add contractor's profit and overhead charges 13.615% 4.10
 labour component/unit qty (including contractor's profit) **33.90**

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	74730.70
C. Cost of Labour	Rs:	18230.20
Total	Rs:	92960.90
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	12656.62654
Total cost for	612.00 cum Rs:	105617.53
Rate per cum	(A+B+C+D)/612.0 Rs.	172.60

IRR-PMW-3-11 **Providing pervious /semi-pervious casing for breached /damaged portion of embankment**
 with soil from **approved dump areas in layers of 10 to 15 cm** before compaction including cost of all materials, machinery, labour, all operations such as collection of soil, sorting out, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting each layer to density control of **not less than 98 percent** or as stipulated **by rolling or by using mechanical tampers etc., complete with initial lead upto 1 km and all lifts.**

Data:

RATE ANALYSISUNIT : **440 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	3.00	1395.70	4187.10
	Fuel / Energy charges	Hour	3.00	801.50	2404.50
2	Shovel 0.50 cum capacity	Hour	8.00	816.10	6528.80
	Fuel / Energy charges	Hour	8.00	624.90	4999.20
3	Tipplers 5.00 cum capacity 4 Nos.	Hour	32.00	363.50	11632.00
	Fuel / Energy charges	Hour	32.00	393.70	12598.40
4	Pump 5 hp (diesel)	Hour	3.00	8.30	24.90
	Fuel / Energy charges	Hour	3.00	104.20	312.60
5	Water tanker 8000 ltr	Hour	6.00	359.00	2154.00
	Fuel / Energy charges	Hour	6.00	393.70	2362.20
6	Vibratory pad foot roller 8 tonne	Hour	5.50	1092.00	6006.00
	Fuel / Energy charges	Hour	5.50	1354.00	7447.00
7	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery				Rs:	60718.70

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	3.00	257.40	772.20
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	32.00	193.10	6179.20
4	Crew for Pump	Hour	3.00	122.30	366.90
5	Crew for Water tanker	Hour	6.00	193.10	1158.60
6	Crew for Roller	Hour	5.50	290.20	1596.10
7	work inspector	Day	2.00	500.00	1000.00
8	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	15532.20

labour component/unit qty 35.30
 Add contractor's profit and overhead charges 13.615% 4.80
 labour component/unit qty (including contractor's profit) **40.10**

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	60718.70
C. Cost of Labour	Rs:	15532.20
Total	Rs:	76250.90
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	10381.56004
Total cost for	440.00 cum Rs:	86632.46
Rate per cum	(A+B+C+D)/440.0 Rs.	196.90

IRR-PMW-3-12 **Repairing rain cuts / resectioning canal slopes to required lines and grades** as directed using available soil including dressing, clod breaking, packing, tamping etc., **complete with all leads and lifts.**

DATA:

RATE ANALYSISUNIT : **1000 sqm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	work inspector	Day	1.00	500.00	500.00
2	mazdoor	Day	8.00	400.00	3200.00
Total cost of Labour				Rs:	3700.00

labour component/unit qty 3.70
 Add contractor's profit and overhead charges 13.615% 0.50
 labour component/unit qty (including contractor's profit) **4.20**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	3700.00
Total		Rs:	3700.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	503.755
Total cost for	1000.00 sqm	Rs:	4203.76
Rate per sqm	(A+B+C+D)/1000.0	Rs.	4.20

IRR-PMW-3-13 **Cleaning drainage gallery, adits, instrumentation galleries etc., by scrubbing / brushing** including chiselling and removing leached lime deposit and disposing off all the waste material out side adits in specified location etc., **complete with all leads and lifts.**

DATA:

RATE ANALYSISUNIT : **100 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Wire brush	Each	5.00	36.00	180.00
2	Coir brush	Each	10.00	39.00	390.00
3	Sundries (brooms, gloves etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	632.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Chiseller CI II	Day	2.00	440.00	880.00
2	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	3280.00

labour component/unit qty 32.80
 Add contractor's profit and overhead charges 13.615% 4.50
 labour component/unit qty (including contractor's profit) **37.30**

ABSTRACT:

A. Cost of Materials		Rs:	632.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	3280.00
Total		Rs:	3912.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	532.6188
Total cost for	100.00 Rm	Rs:	4444.62
Rate per Rm	(A+B+C+D)/100.0	Rs.	44.40

IRR-PMW-3-14 **Cleaning dam parapet inner face and top using oxalic acid and water by scrubbing / brushing and washing to remove all surface coatings etc., complete .**

DATA:

RATE ANALYSISUNIT : **100 Rm****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Oxalic acid	ltr	5.00	68.00	340.00
2	Wire brush	Each	5.00	36.00	180.00
3	Coir brush	Each	10.00	39.00	390.00
4	Sundries (brooms, gloves etc)	LS	2.00	31.00	62.00
Total cost of Materials				Rs:	972.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	2400.00

labour component/unit qty 24.00
 Add contractor's profit and overhead charges 13.615% 3.30
 labour component/unit qty (including contractor's profit) **27.30**

ABSTRACT:

A. Cost of Materials	Rs:	972.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	2400.00
Total	Rs:	3372.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	459.0978
Total cost for 100.00 Rm	Rs:	3831.10
Rate per Rm	(A+B+C+D)/100.0 Rs.	38.30

IRR-PMW-3-20 **Excavation and removal of silt and silt mixed with sand from canal bed in dry condition**
 including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **10 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	4.00	400.00	1600.00
Total cost of Labour				Rs:	1600.00

labour component/unit qty 160.00
 Add contractor's profit and overhead charges 13.615% 21.80
 labour component/unit qty (including contractor's profit) **181.80**

ABSTRACT:

A. Cost of Materials	Rs:	0.00
B. Hire charges of Machinery	Rs:	0.00
C. Cost of Labour	Rs:	1600.00
Total	Rs:	1600.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615% Rs:	217.84
Total cost for 10.00 cum	Rs:	1817.84
Rate per cum	(A+B+C+D)/10.0 Rs.	181.80

IRR-PMW-3-21 **Excavation and removal of silt or silt mixed with sand in slussy condition from canal bed**

including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete **with initial lead upto 50 m and all lifts.**

DATA:

RATE ANALYSISUNIT : **12 cum****A. MATERIALS:**

SI No	particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total hire charges of Machinery				Rs:	0.00

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	mazdoor	Day	6.00	400.00	2400.00
Total cost of Labour				Rs:	2400.00

labour component/unit qty 200.00
 Add contractor's profit and overhead charges 13.615% 27.20
 labour component/unit qty (including contractor's profit) **227.20**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	0.00
C. Cost of Labour		Rs:	2400.00
Total		Rs:	2400.00
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	326.76
Total cost for	12.00 cum	Rs:	2726.76
Rate per cum	(A+B+C+D)/12.0	Rs.	227.20

IRR-PMW-3-22

New Item5 - 2010-11

(For Minor Works)

Providing homogeneous embankment using soil from approved borrow

area in layers of 25 to 30 cm before compaction including cost of all

materials, machinery, labour, all operations such as excavation, sorting out, transportation, spreading soil in layer of specified thickness, breaking clods, sectioning, etc., complete with initial lead upto 1 km and all lifts.

RATE ANALYSIS**A. MATERIALS:**Unit: **807.00 cum**

SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials				Rs:	0.00

B. MACHINERY:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Angle dozer 90 hp	Hour	2.70	1395.70	3768.39
	Fuel / Energy charges	Hour	2.70	801.50	2164.05
2	Shovel 0.85 cum capacity	Hour	8.00	1388.50	11108.00
	Fuel / Energy charges	Hour	8.00	1145.70	9165.60
3	Tippers 5.00 cum capacity 5 Nos.	Hour	40.00	363.50	14540.00
	Fuel / Energy charges	Hour	40.00	393.70	15748.00
Total hire charges of Machinery				Rs:	56494.04

C. LABOUR:

SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Crew for Dozer	Hour	2.70	257.40	694.98
2	Crew for Shovel	Hour	8.00	257.40	2059.20
3	Crew for Tipper	Hour	40.00	193.10	7724.00
4	work inspector	Day	1.00	500.00	500.00
5	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour				Rs:	11778.18

labour component/unit qty 14.60
 Add contractor's profit and overhead charges 13.615% 2.00
 labour component/unit qty (including contractor's profit) **16.60**

ABSTRACT:

A. Cost of Materials		Rs:	0.00
B. Hire charges of Machinery		Rs:	56494.04
C. Cost of Labour		Rs:	11778.18
Total		Rs:	68272.22
D. Add for contractor's profit and overheads on (A+B+C)	13.615%	Rs:	9295.26
Total cost for	807.00 cum	Rs:	77567.48
Rate per cum	(A+B+C+D)/807	Rs:	96.10

IRR-PMW-3-23
New Item6 - 2010-11
(For Minor Works)

Providing homogeneous embankment using soil from **approved borrow area** in **layers of 25 to 30 cm** before compaction including cost of all materials, machinery, labour, all operations such as watering, compacting to density control of **not less than 95 percent** or as stipulated using **8T roller etc., complete with initial lead upto 1 km and all lifts.**

RATE ANALYSIS

A. MATERIALS:					
			UNIT : 807.00 cum		
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs: 0.00

B. MACHINERY:					
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Angle dozer 90 hp	Hour	2.70	1395.70	3768.39
	Fuel / Energy charges	Hour	2.70	801.50	2164.05
2	Pump 5 hp (ele)	Hour	4.00	2.40	9.60
	Fuel / Energy charges	Hour	4.00	42.50	170.00
3	Water tanker 8000 ltr	Hour	8.00	359.00	2872.00
	Fuel / Energy charges	Hour	8.00	393.70	3149.60
4	Vibratory pad foot roller 8 tonne	Hour	6.40	1092.00	6988.80
	Fuel / Energy charges	Hour	6.40	1354.00	8665.60
5	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 27850.04

C. LABOUR:					
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Crew for Dozer	Hour	2.70	257.40	694.98
4	Crew for Pump	Hour	4.00	91.70	366.80
5	Crew for Water tanker	Hour	8.00	193.10	1544.80
6	Crew for Roller	Hour	6.40	290.20	1857.28
7	work inspector	Day	1.00	500.00	500.00
8	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 5763.86

labour component/unit qty 7.10
Add contractor's profit and overhead charges 13.615% 1.00
labour component/unit qty (including contractor's profit) 8.10

ABSTRACT:

A. Cost of Materials	Rs: 0.00
B. Hire charges of Machinery	Rs: 27850.04
C. Cost of Labour	Rs: 5763.86
Total	Rs: 33613.90
D. Add for contractor's profit and overheads on (A+B+C) 13.615%	Rs: 4576.53
Total cost	
for 807.00 cum	Rs: 38190.43
Rate per cum (A+B+C+D)/807	Rs: 47.30

IRR-PMW-3-24
New Item 7 - 2010-11

Providing homogeneous embankment using soil from **approved borrow area** in **layers of 25 to 30 cm** before compaction including cost of all materials, machinery, labour, all operations such as compacting to density control of **not less than 90 percent** or as stipulated using **2T roller etc., complete with initial lead upto 1 km and all lifts.**

RATE ANALYSIS

A. MATERIALS:					
			UNIT : 807.00 cum		
SI No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs
1	NIL		0.00	0.00	0.00
			0.00	0.00	0.00
Total cost of Materials					Rs: 0.00

B. MACHINERY:					
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	Tractor with 2T Roller	Hour	10.00	345.00	3450.00
2	Sundries	LS	2.00	31.00	62.00
Total hire charges of Machinery					Rs: 3512.00

C. LABOUR:					
SI No	Description	Unit	Quantity	Rate in Rs.	Amount in Rs
1	work inspector	Day	0.50	500.00	250.00
2	mazdoor	Day	2.00	400.00	800.00
Total cost of Labour					Rs: 1050.00

labour component/unit qty 1.30
Add contractor's profit and overhead charges 13.615% 0.20
labour component/unit qty (including contractor's profit) 1.50

ABSTRAC**T:**

A. Cost of Materials	Rs: 0.00
B. Hire charges of Machinery	Rs: 3512.00
C. Cost of Labour	Rs: 1050.00
Total	Rs: 4562.00
D. Add for contractor's profit and overheads on 13.615%	Rs: 621.1163
Total cost for 807.00 cum	Rs: 5183.12
Rate per cum (A+B+C+D)/807	Rs: 6.40

IRR-PMW-3-25 **Weed Removal by Manual Means**
(New Item 2012-13-3)

IRR-PMW-3-25(a) **Removal of Water Hyacinth up to 30 cm thick**

RATE ANALYSIS

Unit : **2000 Sqm**

A. MATERIALS

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total Cost of Materials				Rs.	0.00

B. MACHINERY

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Work Inspector	Day	3.5	500.00	1750
2	Mazdoor	Day	28	400.00	11200
Total Cost of Labour				Rs.	12950.00

ABSTRACT:

A.COST OF MATERIALS	Rs.	0.00
B.COST OF MACHINERY	Rs.	0.00
C.COST OF LABOUR	Rs.	12950.00
Total		12950.00
D. Add for Contractor's Profit and overheads	13.615%	1763.1425
Total Cost for removal weed in the extent of	2000 Sqm	14713.14
Rate per Sqm	(A+B+C+D)/2000	7.4

IRR-PMW-3-25(b) **Removal of Water Hyacinth beyond 30 cm thick**

RATE ANALYSIS

Unit : **2000 Sqm**

A. MATERIALS

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total Cost of Materials				Rs.	0.00

B. MACHINERY

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Work Inspector	Day	5	500.00	2500
2	Mazdoor	Day	38	400.00	15200
Total Cost of Labour				Rs.	17700.00

ABSTRACT:

A.COST OF MATERIALS	Rs.	0.00
B.COST OF MACHINERY	Rs.	0.00
C.COST OF LABOUR	Rs.	17700.00
Total		17700.00
D. Add for Contractor's Profit and overheads	13.615%	2409.855
Total Cost for removal weed in the extent of	2000 Sqm	20109.86
Rate per Sqm	(A+B+C+D)/2000	10.1

IRR-PMW-3-25(c) **Clearing Alchi Tilla**

RATE ANALYSIS

Unit : **2000 Sqm**

A. MATERIALS

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total Cost of Materials				Rs.	0.00

B. MACHINERY

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Work Inspector	Day	3	500.00	1500
2	Mazdoor	Day	26	400.00	10400
Total Cost of Labour				Rs.	11900.00

ABSTRACT:

A.COST OF MATERIALS		Rs.	0.00
B.COST OF MACHINERY		Rs.	0.00
C.COST OF LABOUR		Rs.	11900.00
	Total		11900.00
D. Add for Contractor's Profit and overheads	14%		1620.185
Total Cost for removal weed in the extent of	2000 Sqm		13520.19
Rate per Sqm	(A+B+C+D)/2000		6.8

IRR-PMW-3-25(d) **Removal of Jammu****RATE ANALYSIS**Unit : **2000 Sqm****A. MATERIALS**

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total Cost of Materials				Rs.	0.00

B. MACHINERY

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Work Inspector	Day	2.5	500.00	1250
2	Mazdoor	Day	22	400.00	8800
Total Cost of Labour				Rs.	10050.00

ABSTRACT:

A.COST OF MATERIALS		Rs.	0.00
B.COST OF MACHINERY		Rs.	0.00
C.COST OF LABOUR		Rs.	10050.00
	Total		10050.00
D. Add for Contractor's Profit and overheads	14%		1368.3075
Total Cost for removal weed in the extent of	2000 Sqm		11418.31
Rate per Sqm	(A+B+C+D)/2000		5.7

IRR-PMW-3-25(e) **Removal of Imponea, Cornea****RATE ANALYSIS**Unit : **2000 Sqm****A. MATERIALS**

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total Cost of Materials				Rs.	0.00

B. MACHINERY

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Work Inspector	Day	3	500.00	1500
2	Mazdoor	Day	26	400.00	10400
Total Cost of Labour				Rs.	11900.00

ABSTRACT:

A.COST OF MATERIALS		Rs.	0.00
B.COST OF MACHINERY		Rs.	0.00
C.COST OF LABOUR		Rs.	11900.00
	Total		11900.00
D. Add for Contractor's Profit and overheads	14%		1620.185
Total Cost for removal weed in the extent of	2000 Sqm		13520.19
Rate per Sqm	(A+B+C+D)/2000		6.8

IRR-PMW-3-25(f) **Removal of Natchu, goobi, thooti, etc.****RATE ANALYSIS**Unit : **2000 Sqm****A. MATERIALS**

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total Cost of Materials				Rs.	0.00

B. MACHINERY

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	NIL		0	0	0
Total hire charges of Machinery				Rs.	0.00

C. LABOUR

Sl. No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Work Inspector	Day	1.2	500.00	600
2	Mazdoor	Day	8	400.00	3200
Total Cost of Labour				Rs.	3800.00

ABSTRACT:

A.COST OF MATERIALS		Rs.	0.00
B.COST OF MACHINERY		Rs.	0.00
C.COST OF LABOUR		Rs.	3800.00
	Total		3800.00
D. Add for Contractor's Profit and overheads	14%		517.37
Total Cost for removal weed in the extent of	2000 Sqm		4317.37
Rate per Sqm	(A+B+C+D)/2000		2.2

IRR-PMW-3-26
New Item 2015-16-
8

PAINTING OF SLUICES FOR MAINTENANCE WORKS

Surface cleaning of metal surfaces by chemical cleaners and then by hand and power tool cleaners and removing dust. After cleaning, applying primary coat with **one coat** of Zinc rich epoxy primer to a thickness of 100 microns, followed by finishing coats **2 coats** with Coal tar epoxy with material, labour, and all accessories with all leads and lifts.

Data:

A. Materials

Rate Analysis

Unit:

100 Sqm

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Rust Cleaner/ Inhibitor	ltr	13	111.00	1443
2	Zinc rich epoxy primer	ltr	14	559.00	7826
3	Thinner@10%	ltr	1.4	78.00	109.2
4	Coal Tar epoxy paint	ltr	40	172	6880
5	Thinner@10%	ltr	4	78.00	312
6	Wire Brush	ltr	2	36	72
7	Sundries (brushes, Ladders, platforms)	LS	3	31	93
	Total Cost of Materials				16735.2

B. Machinery

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
	NIL				
	Total Cost of Machinery				0

C. Labour

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Painter Class-II	Day	20	440.00	8800
2	Helper	Day	20	400.00	8000
	Total Cost of Machinery				16800

Labour Component/ Unit Qty.

168

Add Contractor's Profit and Overhead Charges @

13.615%

22.8732

Labour Component/ Unit Qty (including contractor's profit)

190.8732**ABSTRACT:****A. Cost of Materials:**

16735.2

B. Hire Charges of Machinery

0

C. Cost of Labour

16800

Total

33535.2

D. Add for Excise Duty on 75% cost excluding cost of materi

0%

0

Total

33535.2

E. Add for transportation Charges upto worksite @

3%

1006.056

Total

34541.256

F. Add for Contractor's Profit and Overhead Charges @13.615%

13.615%

4702.79

Total Cost per

100 Sqm

39244.05

Rate per

Sqm

392.4

IRR-PMW-3-27
New Item 2018-19

**A. Lifting of water from rivers/drains to agricultural fields and where there is no element of excavation-
Water lifting charges using Electrical driven pump**

Rate Analysis

MACHINERY:									
Hp_hr calculation									
Sl No	Description	Unit	Quantity	5 hP		10 HP		20 HP	
				Rate	Amount	Rate	Amount	Rate	Amount
				in Rs.	in Rs.	in Rs.	in Rs.	in Rs.	in Rs.
1	Electric pump	Hour	1	2.40	2.4	5.50	5.5	10.00	10
2	Fuel / Energy charges	Hour	1	42.50	42.5	85.00	85	170.10	170.1
3	Total hire charges of Machinery	per hour			44.9		90.5		180.1
4	Add Contractor's Profit and Overheads	@		0.13615	6.113135		12.321575		24.520615
5	Total hire charges of Machinery			per hour	51.013135		102.82158		204.62062
6	Total hire charges of Machinery			per hphr	10.202627		10.282158		10.231031
7	Average of three			per hphr	10.24				

Other pumping arrangements including pipes, labour, pump operator etc.,**A. MATERIALS:** Per Hr.

SI No	Particulars	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Use rate of G.I. pipe 100 mm dia	Hour	1	7.35	7.347375
2	Sundries(Starter/Switches etc)	LS	0.2	31.00	6.2
	Total cost of Materials			Rs:	13.547375
B. LABOUR:					
SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Crew charges for Pump	Hour	1	91.70	91.7
2	Laying & dismantling pipe	LS	0.05	31.00	1.55
3	mazdoor	Day	0.1	400	40
	Total cost of Labour			Rs:	133.25
	Total cost for Materials and Labour		per hour		146.797375
	Add Contractor's Profit and and Overhead Charges @		13.62%		19.98646261
	Total cost of Materials and Labour		per hour		166.78

**B. Lifting of water from rivers/drains to agricultural fields and where there is no element of excavation-
Water lifting charges using Diesel driven pump**

Rate Analysis

MACHINERY:

Hp_hr calculation									
SI No	Description	Unit	Quantity	5 HP		10 HP		20 HP	
				Rate	Amount	Rate	Amount	Rate	Amount
				in Rs.	in Rs.	in Rs.	in Rs.	in Rs.	in Rs.
1	Diesel Pump	Hour	1	8.30	8.3	12.40	12.4	39.30	39.3
2	Fuel / Energy charges	Hour	1	104.20	104.2	208.30	208.3	416.60	416.6
3				per hour	112.5		220.7		455.9
	Total hire charges of Machinery								
4		@		0.13615	15.316875		30.0483		62.0708
	Add Contractor's Profit and Overheads								
5	Total hire charges of Machinery			per hour	127.816875		250.748		517.971
6	Total hire charges of Machinery			per hphr	25.563375		25.0748		25.8985
7									
	Average of the above three			per hphr	25.51				

Other pumping arrangements including pipes, labour, pump operator etc.,**A. MATERIALS:** Per Hr.

SI No	Particulars	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Use rate of G.I. pipe 100 mm dia	Hour	1	7.35	7.347375
2	Sundries(miscellaneous expenses)	LS	0.2	31.00	6.2
	Total cost of Materials			Rs:	13.547375

B. LABOUR:					
SI No	Description	Unit	Quantity	Rate	Amount
				in Rs.	in Rs.
1	Crew charges for Pump	Hour	1	122.30	122.3
2	Laying & dismantling pipe	LS	0.05	31.00	1.55
3	mazdoor	Day	0.1	400	40
	Total cost of Labour			Rs:	163.85
	Total cost for Materials and Labour		per hour		177.397375
	Add Contractor's Profit and and Overhead Charges @		13.62%		24.15265261
	Total cost of Materials and Labour		per hour		201.55

(Common to all Departments)

Index_code

COM_MWRK

A. Manual Works

New extra items-- common item for all earth works using only manual labour for all other works without involving contractors

COM_MWRK-1	(Manual)Excavation in all kinds of soil including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) With 3 Cum per day output	per cum	133.30
COM_MWRK-2	(Manual)Excavation in all kinds of soil/ HDR including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) With 2.5 Cum per day output	per cum	160.00
COM_MWRK-3	(Manual)Excavation in soft rock (including F&F) without blasting, including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) Soft rock 1.33 Cum/Day	per cum	300.80
COM_MWRK-4	(Manual)Excavation in hard rock, including boulders upto 0.30 m dia. for foundations of canal cross drainage and other appurtenant structures and placing excavated stuff neatly in specified dump area or disposing off the same as directed etc., complete with initial lead upto 10 m and initial lift upto 1.5 m. (Without involving the contractors for specified works) Hard rock 0.67Cum/ day	per cum	597.00

LEAD/LIFT/LOADING & UNLOADING CHARGES

(WLL BE WITH E-N-C & TO INCORPORATE CHANGES YEARLY/ AS NEEDED)
FOR THE YEAR : 2018-19

LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS

COM-LDLFT

1. For total lead upto 150 m (including initial lead) lead charges by head load only shall be adopted irrespective of mode of conveyance.
 2. For total lead exceeding 150 m conveyance by mechanical means only shall be adopted irrespective of mode of conveyance.
 3. The rates for loading at quarry including idle hire charges of trucks and hire charges per for each kilometer and upto 5 km are cumulative and inclusive of total charges for preceding lead.
 4. Unless otherwise specified lead charges for Earth / Sand / Gravel / Aggregates and Stones are for loose volume and not for compacted or in-situ volume.
 5. The rates for lift charges, lead charges, hire charges are cumulative and inclusive of rates for preceding lift, lead and hire charges
 6. Lift charges are not payable where conveyance of materials is by mechanical means to final placing point.
 7. Loading and unloading charges are not payable for conveyance by head load.
 8. Loading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 50 m wherever specified.
 9. Loading and unloading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 1 km wherever specified.
 10. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone are inclusive of stacking.
 11. Hire charges are per 1KM for tippers and trucks for transport of materials from work site to dump yard and other places are cumulative & includes previous km upto 5 kms
 12. The lead & lift charges are inclusive of contractor's profit and overhead charges of 13.615%
 13. The loading and unloading charges are also inclusive of Contractor's profit and overhead charges of 13.615%
- FOR THE YEAR: 2018-19

COM-LDLFT-1

A. (Lead) Conveyance Charges for materials by head load

Sl No.	Total distance (Total lead includes initial lead)	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs/ Cum	Cement / Reinforce-ment steel Str steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab/ Late-rite / Wood Rs / cum
1	2	3	4	5
1	Total lead upto 50 m (covered by item rate)	initial lead	initial lead	initial lead
2	Total lead upto 100 m	64.90	37.90	82.60
3	Total lead upto 150 m	129.80	75.70	165.30

Notes: 1. No loading or unloading charges are admissible for conveyance by head load.
2. For total lead exceeding 150 m conveyance charges by mechanical means only shall be adopted irrespective of mode of conveyance.

3. The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-2

B. (Lead) Conveyance charges for machinery per kilometer for transporting materials by tippers and trucks excluding loading, unloading and idle hire charges of machinery.
FOR THE YEAR: 2018-19

(No loading and unloading charges allowed for machinery loading and unloading)

SI No.	Distance	(Lead) charges for trucks and tippers for Earth / Sand /Gravel / Murrum/ Lime/ Surki/ per cu.meter	(Lead) charges for trucks and tippers for Rubble/Size stones/ Cut Stones/ Coarse aggregate per cu.meter	(Lead) charges for trucks and tippers for Cement/ Steel/ RCC poles/ AC & GI sheets/ Packed materials/tonne	(Lead) charges for trucks and tippers per cu.meter for PCC slabs/ Shahabad slabs/ CC & Laterite blocks/ Wood/ cum	(Lead) charges for per cu.meter for water/ 1000 litres	(Lead) charges for trucks per 1000 Nos. of Bricks
1	2	3	4	5	6	7	8
1	Lead upto 1 km	32.40	31.50	19.70	46.30	20.20	52.50
2	Lead upto 2 km	45.30	44.10	27.50	64.80	28.20	73.50
3	Lead upto 3 km	60.50	60.50	37.80	88.90	37.60	98.00
4	Lead upto 4 km	73.40	73.40	45.90	108.00	45.70	118.90
5	Lead upto 5 km	86.40	86.40	54.00	127.00	53.70	139.90
6	for Every km beyond 5 km upto 30 km	13.00	13.00	8.10	19.10	8.10	21.00
7	for Every km beyond 30 km	10.80	10.80	6.80	15.90	6.70	17.50

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-3

C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (idle hire charges of trucks are not added)

SI No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Li me in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	21.40	43.10	71.20	85.30	59.30
2	Unloading	10.70	21.55	71.20	85.30	59.30

COM-LDLFT-4

D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (including idle hire charges of trucks)

SI No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Li me in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	117.00	138.50	176.10	190.20	232.50
2	Unloading	42.50	69.25	176.10	190.20	232.50

E. LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS (including idle hire charges of trucks)

SI No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Li me in Rs/cum
1	2	3	4
1	Loading	52.30	104.20
2	Unloading	16.40	16.40

COM-LDLFT-5

COM-LDLFT-6

F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD

Sl No.	Total lift (Total lift includes initial lift)	Earth / Sand /Gravel Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs / cum	Cement / Reinforce- ment steel Str steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab / Laterite / Wood Rs / cum
1	2	3	4	5
1	Total lift upto 3 m (covered by item rate)	Initial lift	Initial lift	Initial lift
2	For Every 1.00 Lift beyond initial lift of 3 meters	7.60	5.50	10.10

DETAILED DATA**LEAD / LIFT / LOADING & UNLOADING CHARGES - DATA RATES**

Note: The Lead and Lift Charges are inclusive of 13.615% Contractor Profit and Overhead charges

I. GENERAL DATA FOR LEAD / LIFT / LOADING & UNLOADING:**A . DATA FOR LEAD CHARGES BY HEAD LOAD :**

For the purpose of working out conveyance charges by head load the category of materials as classified in (1) above are grouped together as under :

CATEGORY : Earth / Sand / Gravel / Murrum / Lime / Surki / Coarse aggregate / Rubble stone / Size stone / Cut stone

In this group materials which are comparatively lighter and generally conveyed by head load by light / heavy mazdoor are included. Method of conveyance, approximate weight per load and time required to cover specified additional distance will be generally same
Therefore common data is considered for conveyance by head load for materials under this category.

CATEGORY : Cement in bag / Reinforcement steel / Structural steel sections

In this group the materials in packed / rolled / fabricated condition which are heavier per load compared to the materials under Category above and which can not be split into small quantities for the purpose of conveyance are included. The unit of measurement for these materials is per tonne.

CATEGORY : PCC slab / Shahabad stone slab / CC block / Laterite stone / BS slab / Wood

In this group the materials in moulded condition / cut to standard size which are heavier per load compared to materials under Category above are included.

COM-DTL-LDLFT-1

A. (Lead) Conveyance Charges for materials by head load

CATEGORY : Earth / Sand / Gravel / Murrum / Lime / Surki / Coarse aggregate / Rubble stone / Size stone / Cut stone

Lead: Upto 50 m :

This is initial lead and cost is covered under item basic rate.

Lead: Upto 100 m :

Average distance to be covered beyond initial lead of 50 m	25	m
Average speed of conveyance by head load	60	m / minute
Round trip cycle time for 25 m considering 50 min/ hr working (2 x 25 x 60 / 50 / 60)	1	min
No. of trips per day for additional lead (8 x 60 / 1)	480	
Quantity of material by head load per load	0.015	cum
Quantity of material by head load per day (480 x 0.015) say	7	cum
Deploy one mazdoor for every 50 m additional lead beyond initial lead.		
Unit:	7	cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mazdoor	Day	1	400	400
			Total Rs:		400
	Contractor's profit and overhead charges	13.615%			54.46
Total for materials under this Category		7	cum	Rs:	454.46
		Rate per	cum	Rs:	64.90

Lead: Upto 150 m :

Average distance to be covered beyond initial of 50 m : 50 m
 Deploy two mazdoors for conveyance beyond initial lead.

Unit: 7 cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mazdoor	Day	2	400	800
			Total Rs:		800
	Contractor's profit and overhead charges	13.615%			108.92
Total for materials under this Category			7	cum	Rs: 908.92
		Rate per	cum	Rs:	129.80

CATEGORY : Cement in bag / Reinforcement steel / Structural steel sections**Lead: Upto 50 m :**

This is initial lead and cost is covered under item basic rate.

Lead: Upto 100 m :

Average distance to be covered beyond initial lead of 50 m 25 m
 Average speed of conveyance by head load 30 m / minute
 Round trip cycle time for 25 m considering 50 min/ hr working
 (2 x 25 x 60 / 50 / 30) 2 min
 No. of trips per day for lead upto 100 m (8 x 60 / 2) 240
 Quantity of material by head load per load 50 kg
 Quantity of material by head load per day (240 x 50 / 1000) 12 tonne
 Deploy one mazdoor for every 50 m additional lead beyond initial lead.

Unit: 12 tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement /steel handling mazdoor	Day	1	400	400
			Total Rs:		400
	Contractor's profit and overhead charges	13.615%			54.46
Total for materials under this Category			12.00	tonne	Rs: 454.46
		Rate per	tonne	Rs:	37.90

Lead: Upto 150 m :

Average distance to be covered beyond initial of 50 m : 50 m
 Deploy two mazdoors for conveyance beyond initial lead.

Unit: 12 tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Cement /steel handling Mazdoor	Day	2	400	800
			Total Rs:		800
	Contractor's profit and overhead charges	13.615%			108.92
Total for materials under this Category			12.00	tonne	Rs: 908.92
		Rate per	tonne	Rs:	75.70

CATEGORY : PCC slab / Shahabad stone slab / CC block / Laterite stone / BS slab / Wood**Lead: Upto 50 m :**

This is initial lead and cost is covered under item basic rate.

Lead: Upto 100 m :

Average distance to be covered beyond initial lead of 50 m 25 m
 Average speed of conveyance by head load 40 m / minute
 Round trip cycle time for 25 m considering 50 min/ hr working
 (2 x 25 x 60 / 50 / 40) 1.5 min
 No. of trips per day for lead upto 100 m (8 x 60 / 1.5) 320
 Quantity of material by head load per load 0.017 cum
 Quantity of material by head load per day (320 x 0.017) say 5.5 cum
 Deploy one mazdoor for every 50 m additional lead beyond initial lead.

Unit: 5.5 cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mazdoor	Day	1	400	400
			Total Rs:		400
	Contractor's profit and overhead charges	13.615%			54.46
Total for materials under this Category			5.5	cum	Rs: 454.46
		Rate per	cum	Rs:	82.60

Lead: Upto 150 m :

Average distance to be covered beyond initial of 50 m :

50

m

Deploy two mazdoors for conveyance beyond initial lead.

Unit:

5.5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Mazdoor	Day	2	400	800
			Total Rs:		800
	Contractor's profit and overhead charges	13.615%			108.92
Total for materials under this Category			5.5	cum	Rs: 908.92
		Rate per	cum	Rs:	165.30

COM-DTL-LDLFT-2

B.(Lead) Conveyance charges for machinery per kilometer for transporting materials by tippers and trucks excluding loading, unloading and idle hire charges of machinery.**CATEGORY : Earth / Sand / Gravel / Murrum / Lime / Surki /**

For total lead upto 1 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.15	363.50	54.53
	Fuel charges	Hour	0.15	393.70	59.06
2	Crew charges	Hour	0.15	193.10	28.97
			Total Rs:		142.56
	Contractor's profit and overhead charges	13.615%			19.41
Total for			5	cum	Rs: 161.97
		Rate per cum			32.40

For total lead more than 1 km upto 2 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.21	363.50	76.34
	Fuel charges	Hour	0.21	393.70	82.68
2	Crew charges	Hour	0.21	193.10	40.55
			Total Rs:		199.57
	Contractor's profit and overhead charges	13.615%			27.17
Total for			5	cum	Rs: 226.74
		Rate per cum			45.30

For total lead more than 2 km upto 3 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.28	363.50	101.78
	Fuel charges	Hour	0.28	393.70	110.24
2	Crew charges	Hour	0.28	193.10	54.07
			Total Rs:		266.09
	Contractor's profit and overhead charges	13.615%			36.23
Total for			5	cum	Rs: 302.32
		Rate per cum			60.50

For total lead more than 3 km upto 4 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.34	363.50	123.59
	Fuel charges	Hour	0.34	393.70	133.86
2	Crew charges	Hour	0.34	193.10	65.65
			Total Rs:		323.10
	Contractor's profit and overhead charges	13.615%			43.99
Total for			5	cum	Rs: 367.09
		Rate per cum			73.40

For total lead more than 4 km upto 5 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.4	363.50	145.40
	Fuel charges	Hour	0.4	393.70	157.48
2	Crew charges	Hour	0.4	193.10	77.24
			Total Rs:		380.12
	Contractor's profit and overhead charges	13.615%			51.75
Total for			5	cum	Rs: 431.87
		Rate per cum			86.40

For lead beyond 5 km upto 30 km for every km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.06	363.50	21.81
	Fuel charges	Hour	0.06	393.70	23.62
2	Crew charges	Hour	0.06	193.10	11.59
			Total Rs:		57.02
	Contractor's profit and overhead charges	13.615%			7.76
	Total for	5	cum	Rs:	64.78
	Rate per cum				13.00

For lead beyond 30 km for every km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.05	363.50	18.18
	Fuel charges	Hour	0.05	393.70	19.69
2	Crew charges	Hour	0.05	193.10	9.66
			Total Rs:		47.53
	Contractor's profit and overhead charges	13.615%			6.47
	Total for	5	cum	Rs:	54.00
	Rate per cum				10.80

CATEGORY : Coarse aggregate / Rubble stone / Size stone / Cut stone

For total lead upto 1 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.15	336.90	50.54
	Fuel charges	Hour	0.15	393.70	59.06
2	Crew charges	Hour	0.15	193.10	28.97
			Total Rs:		138.57
	Contractor's profit and overhead charges	13.615%			18.87
	Total for	5	cum	Rs:	157.44
	Rate per cum				31.50

For total lead more than 1 km upto 2 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.21	336.90	70.75
	Fuel charges	Hour	0.21	393.70	82.68
2	Crew charges	Hour	0.21	193.10	40.55
			Total Rs:		193.98
	Contractor's profit and overhead charges	13.615%			26.41
	Total for	5	cum	Rs:	220.39
	Rate per cum				44.10

For total lead more than 2 km upto 3 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.28	363.50	101.78
	Fuel charges	Hour	0.28	393.70	110.24
2	Crew charges	Hour	0.28	193.10	54.07
			Total Rs:		266.09
	Contractor's profit and overhead charges	13.615%			36.23
	Total for	5	cum	Rs:	302.32
	Rate per cum				60.50

For total lead more than 3 km upto 4 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.34	363.50	123.59
	Fuel charges	Hour	0.34	393.70	133.86
2	Crew charges	Hour	0.34	193.10	65.65
			Total Rs:		323.10
	Contractor's profit and overhead charges	13.615%			43.99
	Total for	5	cum	Rs:	367.09
	Rate per cum				73.40

For total lead more than 4 km upto 5 km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.4	363.50	145.40
	Fuel charges	Hour	0.4	393.70	157.48
2	Crew charges	Hour	0.4	193.10	77.24
			Total Rs:	0.00	380.12
	Contractor's profit and overhead charges	13.615%			51.75
	Total for	5	cum	Rs:	431.87
	Rate per cum				86.40

For lead beyond 5 km upto 30 km for every km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.06	363.50	21.81
	Fuel charges	Hour	0.06	393.70	23.62
2	Crew charges	Hour	0.06	193.10	11.59
			Total Rs:		57.02
	Contractor's profit and overhead charges	13.615%			7.76
	Total for	5	cum	Rs:	64.78
	Rate per cum				13.00

For lead beyond 30 km for every km

Unit:

5

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.05	363.50	18.18
	Fuel charges	Hour	0.05	393.70	19.69
2	Crew charges	Hour	0.05	193.10	9.66
			Total Rs:		47.53
	Contractor's profit and overhead charges	13.615%			6.47
	Total for	5	cum	Rs:	54.00
	Rate per cum				10.80

CATEGORY : Cement/ Steel/ Pipes/ RCC poles/ AC & GI sheets/ Packed materials

For total lead upto 1 km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.15	336.90	50.54
	Fuel charges	Hour	0.15	393.70	59.06
2	Crew charges	Hour	0.15	193.10	28.97
			Total Rs:		138.57
	Contractor's profit and overhead charges	13.615%			18.87
	Total for	8	tonne	Rs:	157.44
	Rate per tonne				19.70

For total lead more than 1 km upto 2 km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.21	336.90	70.75
	Fuel charges	Hour	0.21	393.70	82.68
2	Crew charges	Hour	0.21	193.10	40.55
			Total Rs:		193.98
	Contractor's profit and overhead charges	13.615%			26.41
	Total for	8	tonne	Rs:	220.39
	Rate per tonne				27.50

For total lead more than 2 km upto 3 km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.28	363.50	101.78
	Fuel charges	Hour	0.28	393.70	110.24
2	Crew charges	Hour	0.28	193.10	54.07
			Total Rs:		266.09
	Contractor's profit and overhead charges	13.615%			36.23
	Total for	8	tonne	Rs:	302.32
	Rate per tonne				37.80

For total lead more than 3 km upto 4 km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.34	363.50	123.59
	Fuel charges	Hour	0.34	393.70	133.86
2	Crew charges	Hour	0.34	193.10	65.65
			Total Rs:		323.10
	Contractor's profit and overhead charges	13.615%			43.99
	Total for	8	tonne	Rs:	367.09
	Rate per tonne				45.90

For total lead more than 4 km upto 5 km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.4	363.50	145.40
	Fuel charges	Hour	0.4	393.70	157.48
2	Crew charges	Hour	0.4	193.10	77.24
			Total Rs:		380.12
	Contractor's profit and overhead charges	13.615%			51.75
	Total for	8	tonne	Rs:	431.87
	Rate per tonne				54.00

For lead beyond 5 km upto 30 km for every km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.06	363.50	21.81
	Fuel charges	Hour	0.06	393.70	23.62
2	Crew charges	Hour	0.06	193.10	11.59
			Total Rs:		57.02
	Contractor's profit and overhead charges	13.615%			7.76
	Total for	8	tonne	Rs:	64.78
	Rate per tonne				8.10

For lead beyond 30 km for every km

Unit:

8

tonne

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.05	363.50	18.18
	Fuel charges	Hour	0.05	393.70	19.69
2	Crew charges	Hour	0.05	193.10	9.66
			Total Rs:		47.53
	Contractor's profit and overhead charges	13.615%			6.47
	Total for	8	tonne	Rs:	54.00
	Rate per tonne				6.80

CATEGORY : PCC slabs/ Shahabad slabs/ BS slabs/ CC & Laterite blocks/ Wood

For total lead upto 1 km

Unit:

3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.15	336.90	50.54
	Fuel charges	Hour	0.15	393.70	59.06
2	Crew charges	Hour	0.15	193.10	28.97
			Total Rs:		138.57
	Contractor's profit and overhead charges	13.615%			18.87
	Total for	3.4	cum	Rs:	157.44
	Rate per cum				46.30

For total lead more than 1 km upto 2 km

Unit:

3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.21	336.90	70.75
	Fuel charges	Hour	0.21	393.70	82.68
2	Crew charges	Hour	0.21	193.10	40.55
			Total Rs:		193.98
	Contractor's profit and overhead charges	13.615%			26.41
	Total for	3.4	cum	Rs:	220.39
	Rate per cum				64.80

For total lead more than 2 km upto 3 km

Unit:

3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck hire charges	Hour	0.28	363.50	101.78
	Fuel charges	Hour	0.28	393.70	110.24
2	Crew charges	Hour	0.28	193.10	54.07
			Total Rs:		266.09
	Contractor's profit and overhead charges	13.615%			36.23
	Total for	3.4	cum	Rs:	302.32
	Rate per cum				88.90

For total lead more than 3 km upto 4 km

Unit: 3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.34	363.50	123.59
	Fuel charges	Hour	0.34	393.70	133.86
2	Crew charges	Hour	0.34	193.10	65.65
			Total Rs:		323.10
	Contractor's profit and overhead charges	13.615%			43.99
	Total for	3.4	cum	Rs:	367.09
	Rate per cum				108.00

For total lead more than 4 km upto 5 km

Unit: 3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.4	363.50	145.40
	Fuel charges	Hour	0.4	393.70	157.48
2	Crew charges	Hour	0.4	193.10	77.24
			Total Rs:		380.12
	Contractor's profit and overhead charges	13.615%			51.75
	Total for	3.4	cum	Rs:	431.87
	Rate per cum				127.00

For lead beyond 5 km upto 30 km for every km

Unit: 3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.06	363.50	21.81
	Fuel charges	Hour	0.06	393.70	23.62
2	Crew charges	Hour	0.06	193.10	11.59
			Total Rs:		57.02
	Contractor's profit and overhead charges	13.615%			7.76
	Total for	3.4	cum	Rs:	64.78
	Rate per cum				19.10

For lead beyond 30 km for every km

Unit: 3.4

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Tipper hire charges	Hour	0.05	363.50	18.18
	Fuel charges	Hour	0.05	393.70	19.69
2	Crew charges	Hour	0.05	193.10	9.66
			Total Rs:		47.53
	Contractor's profit and overhead charges	13.615%			6.47
	Total for	3.4	cum	Rs:	54.00
	Rate per cum				15.90

CATEGORY : water

For total lead upto 1 km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.15	359.00	53.85
	Fuel charges	Hour	0.15	393.70	59.06
2	Crew charges	Hour	0.15	193.10	28.97
			Total Rs:		141.88
	Contractor's profit and overhead charges	13.615%			19.32
	Total for	8000	litres	Rs:	161.20
	Rate per 1000 litres				20.20

For total lead more than 1 km upto 2 km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.21	359.00	75.39
	Fuel charges	Hour	0.21	393.70	82.68
2	Crew charges	Hour	0.21	193.10	40.55
			Total Rs:		198.62
	Contractor's profit and overhead charges	13.615%			27.04
	Total for	8000	litres	Rs:	225.66
	Rate per 1000 litres				28.20

For total lead more than 2 km upto 3 km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.28	359.00	100.52
	Fuel charges	Hour	0.28	393.70	110.24
2	Crew charges	Hour	0.28	193.10	54.07
			Total Rs:		264.83
	Contractor's profit and overhead charges	13.615%			36.06
	Total for	8000	litres	Rs:	300.89
	Rate per 1000 litres				37.60

For total lead more than 3 km upto 4 km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.34	359.00	122.06
	Fuel charges	Hour	0.34	393.70	133.86
2	Crew charges	Hour	0.34	193.10	65.65
			Total Rs:		321.57
	Contractor's profit and overhead charges	13.615%			43.78
	Total for	8000	litres	Rs:	365.35
	Rate per 1000 litres				45.70

For total lead more than 4 km upto 5 km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.4	359.00	143.60
	Fuel charges	Hour	0.4	393.70	157.48
2	Crew charges	Hour	0.4	193.10	77.24
			Total Rs:		378.32
	Contractor's profit and overhead charges	13.615%			51.51
	Total for	8000	litres	Rs:	429.83
	Rate per 1000 litres				53.70

For lead beyond 5 km upto 30 km for every km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.06	359.00	21.54
	Fuel charges	Hour	0.06	393.70	23.62
2	Crew charges	Hour	0.06	193.10	11.59
			Total Rs:		56.75
	Contractor's profit and overhead charges	13.615%			7.73
	Total for	8000	litres	Rs:	64.48
	Rate per 1000 litres				8.10

For lead beyond 30 km for every km

Unit: 8000

litres

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Water tanker hire charges	Hour	0.05	359.00	17.95
	Fuel charges	Hour	0.05	393.70	19.69
2	Crew charges	Hour	0.05	193.10	9.66
			Total Rs:		47.30
	Contractor's profit and overhead charges	13.615%			6.44
	Total for	8000	litres	Rs:	53.74
	Rate per 1000 litres				6.70

CATEGORY : Bricks (as adopted by R&B(Buildings))

For total lead upto 1 km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.15	336.90	50.54
	Fuel charges	Hour	0.15	393.70	59.06
2	Crew charges	Hour	0.15	193.10	28.97
			Total Rs:		138.57
	Contractor's profit and overhead charges	13.615%			18.87
	Total for	3000	bricks	Rs:	157.44
	Rate per 1000 bricks				52.50

For total lead more than 1 km upto 2 km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.21	336.90	70.75
	Fuel charges	Hour	0.21	393.70	82.68
2	Crew charges	Hour	0.21	193.10	40.55
			Total Rs:		193.98
	Contractor's profit and overhead charges	13.615%			26.41
	Total for	3000	bricks	Rs:	220.39
	Rate per 1000 bricks				73.50

For total lead more than 2 km upto 3 km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.28	336.90	94.33
	Fuel charges	Hour	0.28	393.70	110.24
2	Crew charges	Hour	0.28	193.10	54.07
			Total Rs:		258.64
	Contractor's profit and overhead charges	13.615%			35.21
	Total for	3000	bricks	Rs:	293.85
	Rate per 1000 bricks				98.00

For total lead more than 3 km upto 4 km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.34	336.90	114.55
	Fuel charges	Hour	0.34	393.70	133.86
2	Crew charges	Hour	0.34	193.10	65.65
			Total Rs:		314.06
	Contractor's profit and overhead charges	13.615%			42.76
	Total for	3000	bricks	Rs:	356.82
	Rate per 1000 bricks				118.90

For total lead more than 4 km upto 5 km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.4	336.90	134.76
	Fuel charges	Hour	0.4	393.70	157.48
2	Crew charges	Hour	0.4	193.10	77.24
			Total Rs:		369.48
	Contractor's profit and overhead charges	13.615%			50.30
	Total for	3000	bricks	Rs:	419.78
	Rate per 1000 bricks				139.90

For lead beyond 5 km upto 30 km for every km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.06	336.90	20.21
	Fuel charges	Hour	0.06	393.70	23.62
2	Crew charges	Hour	0.06	193.10	11.59
			Total Rs:		55.42
	Contractor's profit and overhead charges	13.615%			7.55
	Total for	3000	bricks	Rs:	62.97
	Rate per 1000 bricks				21.00

For lead beyond 30 km for every km

Unit: 3000

bricks

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	Truck 10 T charges	Hour	0.05	336.90	16.85
	Fuel charges	Hour	0.05	393.70	19.69
2	Crew charges	Hour	0.05	193.10	9.66
			Total Rs:		46.20
	Contractor's profit and overhead charges	13.615%			6.29
	Total for	3000	bricks	Rs:	52.49
	Rate per 1000 litres				17.50

COM-DTL-LDLFT-3

C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (idle hire charges of trucks are not added)

MORD -data					
1	Loading of Lime, Aggregate, Stone Boulder,				
a) Loading	Brick Aggregate, Kankar, Building Rubbish,	Unit	Quantity	Rate Rs.	Amount Rs.
	Building Rubbish, Crushed Slag, Stone for Masonry				
	Work by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
	Labour				
	Head Mazdoor	day	0.02	440.00	8.80
	Mazdoor	day	0.5	400	200.00
			Total in Rs.		208.80
	contractor's profit and overhead charges	13.615%			28.43
	Rate per cum =			Rs.	43.10

b) Unloading 50% of the loading charges i. 21.55

2	Loading of Earth, Sand, Moorum, Manure, Flya	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading	by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
	Labour				
	Head Mazdoor	day	0.01	375.00	3.75
	Mazdoor	day	0.25	400	100.00
		Total in Rs.			103.75
	contractor's profit and overhead charges	13.615%			14.13
	Rate per cum =			Rs.	21.40

b) Unloading 50% of the loading charges i. 10.70

3	Loading of Bricks by manual means	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading	including a lead upto 30 m				
	Unit = 1000 Nos.				
	Taking output = 2000 Nos				
	a) Labour				
	Head Mazdoor	day	0.01	440.00	4.40
	Mazdoor	day	0.25	400	100.00
	Cost for 2000 Nos. =				104.40
	contractor's profit and overhead charges	13.615%			14.21
	Rate per cum =			Rs.	59.30

100% of loading charges

b) Unloading i.e., Rs. 59.30

4	Loading of Cement by manual means	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading	including a lead upto 30 m				
	Unit = 1 t				
	Taking output = 10 t				
	a) Labour				
	Head mazdoor	day	0.06	440.00	26.40
	Mazdoor	day	1.5	400	600.00
	Cost for 10 t =				626.40
	contractor's profit and overhead charges	13.615%			85.28
	Rate per 1 tonne =			Rs.	71.20

b) Unloading 100% of loading charges i.e. 71.20

5	Loading of Structural Steel, Steel Bars by manu	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading	including a lead upto 30 m				
	Unit = 1 t				
	Taking output = 10 t				
	a) Labour				
	head Mazdoor	day	0.07	440.00	30.8
	Mazdoor	day	1.8	400	720.00
	Cost for 10 t =				750.80
	contractor's profit and overhead charges	13.615%			102.22
	Rate per 1 tonne =			Rs.	85.30

100% of loading charges

b) Unloading i.e., Rs. 85.30

6	Loading of Bricks - 1000 Nos (Regular sizes - 225x140x70 mm) by manual means including	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading					
	Unit = 1000 Nos.				
	Taking output = 2000 Nos.				
	a) Labour				
	head Mazdoor	day	0.01	440.00	4.4
	Mazdoor	day	0.25	400.00	100.00
	Cost for 2000 Nos. =				104.40
	contractor's profit and overhead charges	13.615%			14.21
	Rate per 1000 Nos. =			Rs.	59.30

100% of loading charges

b) Unloading i.e., Rs. 59.30

COM-DTL-LDLFT-4

D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (including idle hire charges of trucks)

1	Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading					
	Unit = cum				
	Taking output = 5.5 cum				
	a) Labour				
	Head Mazdoor	day	0.02	440.00	8.80
	Mazdoor	day	0.5	400	200.00
	b) Machinery				
	Truck 10t	hour	0.5	923.70	461.85
	Cost for 5.5 cum =				670.65
	contractor's profit and overhead charges	13.615%			91.31
	Rate per cum =			Rs.	138.50

b) Unloading 50% of the loading charges i.e., 69.25

2	Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Amount Rs.
a) Loading					
	Unit = cum				
	Taking output = 5.5 cum				
	Labour				
	Head Mazdoor	day	0.01	440.00	4.40
	Mazdoor	day	0.25	400	100.00
	b) Machinery				
	Truck 10t	hour	0.5	923.70	461.85
	Cost for 5.5 cum =				566.25
	contractor's profit and overhead charges	13.615%			77.09
	Rate per cum =			Rs.	117.00

b) Unloading	Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Amount Rs.
	Unit = cum				
	Taking output = 5.5 cum				
	a) Labour				
	Mate	day	0.005	440.00	2.20
	Mazdoor(unskilled)	day	0.125	400	50.00
	b) Machinery				
	Truck 10t	hour	0.166	923.70	153.33
	Cost for 5.5 cum =				205.53
	contractor's profit and overhead charges	13.615%			27.98
	Rate per cum =			Rs.	42.50

3	Loading of Bricks by manual means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Total
a) Loading					
	Unit = 1000 Nos.				
	Taking output = 2000 Nos				
	a) Labour				
	Mate	day	0.01	440.00	4.40
	Mazdoor(unskilled)	day	0.25	400	100.00
	b) Machinery				
	Truck 10t	hour	0.33	923.70	304.82
	Cost for 2000 Nos. =				409.22
	contractor's profit and overhead charges	13.615%			55.72
	Rate per 1000 bricks =			Rs.	232.50

b) Unloading 100% of loading charges i.e., 232.50

4	Loading of Cement by manual means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Total
a) Loading					
	Unit = 1 t				
	Taking output = 10 t				
	a) Labour				
	Mate	day	0.06	440.00	26.40
	Mazdoor(unskilled)	day	1.5	400	600.00
	b) Machinery				
	Truck 10t	hour	1	923.70	923.70
	Cost for 10 t =				1550.10
	contractor's profit and overhead charges	13.615%			211.05
	Rate per 1 tonne =			Rs.	176.10

b) Unloading 100% of loading charges i.e., 176.10

5	Loading of Structural Steel, Steel Bars by	Unit	Quantity	Rate Rs.	Total
a) Loading	manual means including a lead upto 30 m				
	Unit = 1 t				
	Taking output = 10 t				
	a) Labour				
	Mate	day	0.07	440.00	30.80
	Mazdoor(unsilled)	day	1.8	400	720.00
	b) Machinery				
	Truck 10t	hour	1	923.70	923.70
	Cost for 10 t =				1674.50
	contractor's profit and overhead charges	13.615%			227.98
	Rate per 1 tonne =			Rs.	190.20

b) Unloading 100% of loading charges i.e., 190.20

COM-DTL-LDLFT-5

E. LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS (including idle hire charges of trucks)

COM-DTL-LDLFT-5-A

1	Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry work by mechanical means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Total
a) Loading	Placing tipper at loading point, loading with front end loader excluding time for haulage and return trip.				
	Unit = cum				
	Taking output = 5.5 cum				
	Time required for				
	i) Positioning of tipper at loading point	Min	1		
	ii) Loading by front end loader 1 cum bucket capacity @ 45 / 25 cum per hour	Min	7.33		
	iii) Manoeuvring, reversing, dumping and turn for return	Min	-		
	iv) Waiting time, unforeseen contingencies, etc.	Min	2		
	Total	Min	10.33		
	a) Machinery				
	Tipper 10 t capacity	hour	0.17	950.30	163.61
	Front end-loader 1 cum bucket capacity @ 45 c	hour	0.12	2791.60	341.04
	per hour				
	Cost for 5.5 cum =				504.65
	b) contractor's profit and overhead charges	13.615%			68.71
	Rate per cum = (a+b)/5.5			Rs.	104.20

b) Unloading see below. COM-LDLFT-5-B

COM-DTL-LDLFT-5-B

2	Loading of Earth, sand, Moorum, Manure, Flyash, by mechanical means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Total
a) Loading	Placing tipper at loading point, loading with front end loader excluding time for haulage and return trip.				
	Unit = cum				
	Taking output = 5.5 cum				
	Time required for				
	i) Positioning of tipper at loading point	Min	1		
	ii) Loading by front end loader 1 cum bucket capacity @ 45 / 25 cum per hour	Min	3.3		
	iii) Waiting time, unforeseen contingencies, etc.	Min	2		
	Total	Min	6.3		
	a) Machinery				
	Tipper 10 t capacity	hour	0.105	950.30	99.78
	Front end-loader 1 cum bucket capacity @ 45 c	hour	0.055	2791.60	153.54
	per hour				
	Cost for 5.5 cum =				253.32
	b) contractor's profit and overhead charges	13.615%			34.49
	Rate per cum = (a+b)/5.5			Rs.	52.30

b) Unloading	Unloading of Earth, sand, Moorum, Manure, Flyash, lime, Aggregate, Stone boulder, Brick aggregate, Kankar, Building rubbish, Manure, Crushed Slag Flyash, Stone for Masonry work by mechanical means including a lead upto 30 m	Unit	Quantity	Rate Rs.	Total
	Placing tipper at unloading point, excluding time for haulage and return trip. Taking output = 5.5 cum Time required for i) Positioning of tipper at loading point Min 1 ii) Loading by front end loader 1 cum bucket cap Min 2 @ 45 / 25 cum per hour iii) Waiting time, unforeseen contingencies, etc. Min 2 Total 5				
a) Machinery					
Tipper 10 t capacity		hour	0.08	950.30	79.19
Cost for 5.5 cum =					79.19
b) contractor's profit and overhead charges	13.615%				10.78
Rate per cum = (a+b)/5.5					16.40

COM-DTL-LDLFT-6

F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD

FOR CATEGORY : Earth / Sand / Gravel / Murrum / Lime / Surki / Coarse aggregate / Rubble stone / Size stone / Cut stone

Lift : Upto 3.00 m

This is the initial lift and forms integral part of the activities in the basic rate of work item.
Lift charges are admissible only lifting effort beyond initial lift specified in the work item.

Lift : ADDITIONAL LIFT CHARGES FOR each 1 METER LIFT BEYOND 3 M INITIAL LIFT

For additional lift of 1m beyond initial lift of 3 m

one meter lift is taken equivalent to 6 meters lead

average speed of conveyance by head load

60 m/minute

Round trip cycle time for 1.00 m considering 50 min/ hr working

1 x 60 / 50 / 60)

0.12

min

No. of trips per day for lift 1.0 m above 3 m (8 x 60 / 0.12)

4000

Quantity of material by head load

0.015

cum

Quantity of material by head load per day (4000x 0.015)

60

cum

Deploy 1 mazdoor for every additional lift of 1.0 m beyond initial lift.

Lift : Upto 3.00 m for materials under this Category

Unit:

60

cum

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	2	3	4	5	6
	Mazdoor	Day	1.00	400.00	400.00
	contractor's profit and overhead charges	13.615%			54.46
		Total Rs: for 60 cum			454.46
	Rate per cum				7.60

FOR CATEGORY: Cement bag / Reinforcement steel / Structural steel sections

Lift : Upto 3.00 m

This is the initial lift and forms integral part of the activities in the basic rate of work item.
Lift charges are admissible only lifting effort beyond initial lift specified in the work item.

Lift : ADDITIONAL LIFT CHARGES FOR each 1 METER LIFT BEYOND 3 M INITIAL LIFT

For additional lift of 1m beyond initial lift of 3 m

one meter lift is taken equivalent to 6 meters lead

average speed of conveyance by head load

25 m/minute

Round trip cycle time for 1.00 m considering 50 min/ hr working

1 x 60 / 50 / 25)

0.29

min

No. of trips per day for additional lift 1.0 m above 3 m (8 x 60 / 0.29)

1655

Quantity of material by head load

50

kgs

Quantity of material by head load per day (1655x50x 0.015)

83

tons

Deploy 1 mazdoor for every additional lift of 1.5 m beyond initial lift.or 2/3 mazdoor

Lift : Upto 3.00 m for materials under this Category

Unit:

83

TONS

Sl No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	2	3	4	5	6
	Mazdoor	Day	1.00	400.00	400.00
	contractor's profit and overhead charges	13.615%			54.46
		Total Rs: for 83 Tonnes			454.46
	Rate per tonne				5.50

FOR CATEGORY : PCC slab / Shahabad stone slab / CC block / Laterite stone / BS slab / Wood

Lift : Upto 3.00 m

This is the initial lift and forms integral part of the activities in the basic rate of work item.

Lift charges are admissible only lifting effort beyond initial lift specified in the work item.

Lift : ADDITIONAL LIFT CHARGES FOR EACH 1 METER LIFT BEYOND 3 M INITIAL LIFT

For additional lift of 1m beyond initial lift of 3 m

one meter lift is taken equivalent to 6 meters lead

average speed of conveyance by head load

40 m/minute

Round trip cycle time for 1.00 m considering 50 min/ hr working

1 x 60 / 50 / 40)

0.18

min

No. of trips per day for lift 1.0 m (8 x 60 / 0.18)

2667

Quantity of material by head load

0.017

cum

Quantity of material by head load per day (1667x 0.018)

45

cum

Deploy 1 mazdoor for every additional lift of 1.5 m beyond initial lift.or 2/3 mazdoor

Lift : Upto 3.00 m for materials under Category

Unit:

45

cum

SI No.	Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	2	3	4	5	6
	Mazdoor	Day	1.00	400.00	400.00
	contractor's profit and overhead charges	13.615%			54.46
		Total Rs: for 45 cum			454.46
	Rate per cum				10.10

HIRE CHARGES OF MACHINERY

FOR THE YEAR : 2018-19

S.No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
1	Agitator car / Transit mixer 2 cum	Hour	617.10	1145.70	308.90	2071.70
2	Air compressor 5 cmm (electric)	Hour	88.10	287.00	181.40	556.50
3	Air compressor 7 cmm (diesel)	Hour	196.30	937.40	232.10	1365.80
4	Air compressor 7 cmm (electric)	Hour	107.30	382.70	181.40	671.40
5	Air compressor 8.5 cmm (diesel)	Hour	224.20	1171.80	232.10	1628.10
6	Air compressor 8.5 cmm (electric)	Hour	139.00	478.40	181.40	798.80
7	Air compressor 15 cmm (electric)	Hour	112.90	1063.10	193.40	1369.40
8	Angle Dozer 90 hp	Hour	1395.70	801.50	257.40	2454.60
9	Batching plant 0.5 cum(6 cum/hr)	Hour	93.20	127.60	370.60	591.40
10	Batching plant 2 x 1.00 cum(15 cum/hr)	Hour	329.80	382.70	370.60	1083.10
11	Batching plant 2 x 1.50 cum(50 cum/hr)	Hour	505.00	467.70	370.60	1343.30
12	Bending machine 3000 x 12 mm	Hour	37.80	127.60	145.10	310.50
13	Clamp shell and hoisting ropes	Hour	4.80	0.00	0.00	4.80
14	Concrete bucket 1.5 cum	Hour	12.90	0.00	0.00	12.90
15	Concrete hand mixer 45 / 30 ltr	Hour	4.50	0.00	0.00	4.50
16	Concrete mixer 300 / 200 (diesel)	Hour	43.50	104.20	241.80	389.50
17	Concrete mixer 300 / 200 ltr (electric)	Hour	42.10	42.50	241.80	326.40
18	Concrete mixer 600 / 400 (diesel)	Hour	75.40	208.30	241.80	525.50
19	Concrete mixer 600 / 400 ltr (electric)	Hour	74.00	85.00	241.80	400.80
20	Concrete paver 100 sqm / hr	Hour	290.00	0.00	464.30	754.30
21	Convey mucker	Hour	669.50	296.00	193.40	1158.90
22	Core drilling machine	Hour	259.50	312.50	308.90	880.90
23	Diesel generating set 30 KVA	Hour	53.60	833.30	145.10	1032.00
24	Diesel generating set 50 KVA	Hour	69.20	1249.90	145.10	1464.20
25	Diesel Loco 45 hp	Hour	310.50	703.10	181.40	1195.00
26	Dewatering pump 5 hp (diesel)	Hour	8.30	104.20	122.30	234.80
27	Dewatering pump 5 hp (electric)	Hour	2.40	42.50	91.70	136.60
28	Dewatering pump 10 hp (diesel)	Hour	12.40	208.30	122.30	343.00
29	Dewatering pump 10 hp (electric)	Hour	5.50	85.00	91.70	182.20
30	Dewatering pump 20 hp (diesel)	Hour	39.30	416.60	122.30	578.20
31	Dewatering pump 20 hp (electric)	Hour	10.00	170.10	91.70	271.80
32	Drifter	Hour	262.50	0.00	386.10	648.60
33	Drilling jumbo	Hour	299.70	56.20	193.40	549.30
34	Dumper 4.5 cum	Hour	472.50	524.90	247.10	1244.50
35	Geophysical Electric resistivity meter	Hour	90.60	0.00	0.00	90.60
36	Grouting pump	Hour	20.30	42.50	290.20	353.00
37	Guniting / sand blast equipment	Hour	97.70	0.00	241.80	339.50
38	Ice plant & accessories 30 t / day	Hour	155.70	1211.90	145.10	1512.70
39	Jack hammer	Hour	16.10	0.00	362.70	378.80
40	Needle vibrator 40 mm (petrol)	Hour	6.20	23.20	174.10	203.50
41	Needle vibrator 40 mm (electric)	Hour	6.50	8.50	174.10	189.10
42	Needle vibrator 60 mm (petrol)	Hour	6.70	34.80	174.10	215.60
43	Needle vibrator 60 mm (electric)	Hour	7.90	12.80	174.10	194.80
44	Planing machine 4 m stroke	Hour	104.50	127.60	232.10	464.20
45	Plate shearing machine upto 12 mm	Hour	37.20	170.10	154.40	361.70
46	Pneumatic placer 0.5 cum	Hour	139.20	0.00	95.60	234.80
47	Pneumatic tamper	Hour	16.90	0.00	290.20	307.10
48	Pug cutting machine	Hour	5.70	4.30	0.00	10.00
49	Pusher leg	Hour	11.30	0.00	0.00	11.30

HIRE CHARGES OF MACHINERY

FOR THE YEAR : 2018-19

S.No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
50	Road roller diesel 10 t	Hour	160.40	937.40	232.10	1329.90
51	Shovel 0.50 cum 75 hp	Hour	816.10	624.90	257.40	1698.40
52	Shovel 0.85 cum 110 hp	Hour	1388.50	1145.70	257.40	2791.60
53	Stationery derrick crane	Hour	70.10	0.00	0.00	70.10
54	Tipper 5 cum	Hour	363.50	393.70	193.10	950.30
55	Tipping tub 1.5 cum	Hour	52.20	0.00	0.00	52.20
56	Tower crane 5 tonne	Hour	705.50	221.10	205.90	1132.50
57	Transformer 250 KVA	Hour	5031.40	0.00	0.00	5031.40
58	Truck 10 t	Hour	336.90	393.70	193.10	923.70
59	Truck mounted derrick crane 5 t	Hour	422.80	393.70	193.10	1009.60
60	Upright drilling machine/Grinder	Hour	18.30	42.50	214.50	275.30
61	Ventilation fan 20 hp	Hour	10.20	170.10	31.60	211.90
62	Vibratory pad foot roller 8 t	Hour	1092.00	1354.00	290.20	2736.20
63	Wagon drill	Hour	153.40	0.00	308.90	462.30
64	Water tanker 8000 ltr	Hour	359.00	393.70	193.10	945.80
65	Welding set	Hour	14.10	102.10	0.00	116.20
66	Winch 35 hp (electric)	Hour	105.30	208.40	290.20	603.90
67	Hydraulic Truck Crane 30T	Hour	2519.40	118.80	576.60	3214.80
68	Hydraulic Truck Crane 16T	Hour	1853.40	75.00	576.60	2505.00
69	Heavy Duty Airless Spray Painting Equipment	Hour	98.80			98.80
70	Concrete Placer Pump 25 Cum/Hr	Hour	817.10	510.30	181.40	1508.80