



**Government of Andhra Pradesh**

**DRAFT COMMON SCHEDULE OF  
RATES AS PER  
A.P. REVISED STANDARD  
DATA FOR THE YEAR 2019-20**

**BOARD OF CHIEF ENGINEERS**

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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 2019-20/Vol.3 dt:24.09.2019**

- Sub: Schedule of Rates for the year 2019-20 with basic rates (excluding GST) (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 2019-20 dt:22.05.2019.  
3)ENC(R&B) Lr.No.SoR-II/ ENC/ DEC(R)/ EE(TEC)/ DEE 7/AEE2 /2019 dt:30.05.2019.  
4)Industrial Consumer Price Index points obtained from Commissioner, Labour Department for the months of April,2019 to September,2019  
5)ENC(R&B),Buildings&RSW Procs.No. 20938/SOR/DCE(B)/EE(B)/DEE(B)/AEE/2019, Dt.18.07.2019  
6)Minutes of BOCES meeting for Schedule of Rates held on 01.08.2019.  
7) Discussions of Special BoCEs meeting held on 21-08-2019 for implementation of CFMS Phase-II Work module.  
8) Addendum to the BoCEs meeting for Schedule of Rates held on 01.08.2019  
9) ENC(R&B) Lr.No.SoR-II/ ENC/ DEC(R)/ EE(TEC)/ DEE 7/AEE2 /2019 dt:18.09.2019  
10) ENC(PH) Lr.No. 146/T4/SoR 2019-20 dt:20.05.2019

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The Government have approved A.P.Revised Standard Data vide ref 1st cited. The Schedule of Rates with basic rates(excluding GST) as per the A.P.Revised Standard Data for the year 2019-20 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 2019-20.

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 furnished the Part-III of Common SoR i.e., Buildings vide reference 5<sup>th</sup> cited.

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 2019-20.

Based on the above proposals, the draft Schedule of Rates for the part I(WR items), Part-II(Roads & Bridge items) & Part-IV(PH items) are prepared for the SoR year 2019-20 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 01.08.2019 and 13.08.2019 in the conference hall of Engineer-in- Chief(A.W/I.W),Vijayawada.

As per the discussions taken place during the Annual SoR meeting held on 01-08-2019 and subsequent furnishing of revised proposals of ENC(PH) and ENC(RWS&S) for the rates of BWSC, PSC and PPSC pipes, the addendum to the SoR-2019-20 minutes is issued vide reference 8<sup>th</sup> cited.

Subsequently, the ENC(R&B) and ENC (PH) vide references 9<sup>th</sup> and 10<sup>th</sup> cited above has furnished the final copy of the Schedule of rates for PART-II and PART-IV respectively for incorporating into SoR-2019-20.

**Deletion of Contractor's Profit and Overhead Charges from Leads, Lifts, Loading and Unloading Charges:**

The BoCEs in the special BoCEs meeting held on 21.08.2019 has recommended to delete the Contractor's Profit and Overhead Charges from the calculation of Leads, Lifts, Loading and Unloading Charges. Accordingly, the Leads, Lifts, Loading and Unloading Charges are calculated without Contractor's Profit and Overhead Charges(CP&OH).

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(excluding GST) are applicable to the data 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 2019-20. Unauthorized printing & selling of the SoR is strictly prohibited.

Any discrepancies found (or) corrections required in SoR 2019-20 may be brought to the notice of undersigned for issuing corrections.

The revised rates will come into force from 1st June of 2019.

The receipt of the proceedings may be acknowledged in the 1<sup>st</sup> instance.

**Encl:** SoR 2019-20 containing Part-I(Water Resources Dept. works),Part-II(Roads & Bridge works) and Part-IV (Public Health Items)

Sd/- K.Srinivas,dt. 24-09-2019,  
Engineer-in-Chief(I.W.), WR Dept. &  
Chairman, BOCE(SoR)

- I) Copy communicated to the Special Chief Secretary to Govt., WR Dept., 4th Block, A.P.Secretariat Buildings, Velagapudi,Amaravathi.
- 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. Engineer-in-Chief (Buildings & RSW), R&B Department.
- III) Copy of Scheduled of Rates 2019-20 with basic rates (excluding GST) & 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-2019-20 (part-I, Part-II & Part-IV) on the Water Resources Department website to forward this letter to all the members of the Board of Chief Engineers through E-mail.

Sd/- K.Srinivas,dt. 24-09-2019,  
Engineer-in-Chief(I.W.), WR Dept. &  
Chairman, BOCE(SoR)

**Important – Read The following**

**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.
- 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 /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 of Water Resources work items in the software package and hard copy of SoR & Standard data (part-1) may be brought to the notice of undersigned for issuing corrections.

Sd/- K.Srinivas, dt. 24-09-2019,  
Engineer-in-Chief(I.W.), WR Dept. &  
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**

<b>Sl No.</b>	<b>CATEGORY OF WORKER</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>
<b>I.</b>	<b>SKILLED CATEGORY:</b>	
1	Bar bender	<b>625</b>
2	Black smith / Tin smith / Rivetor	<b>495</b>
3	Blaster	<b>570</b>
4	Carpenter CL- I	<b>580</b>
5	Electrician ( Licensed )	<b>575</b>
6	Fitter CL- I	<b>550</b>
7	Floor Polisher / Tile Layer	<b>495</b>
8	Foreman	<b>570</b>
9	Gauge reader	<b>480</b>
10	Maistry / Work Inspector with Non-technical Qualification SSLC/SSC/HSC	<b>520</b>
11	Mason CL- I / Brick layer CL- I	<b>500</b>
12	Mechanic CL- I	<b>530</b>
13	Operator Air compressor / DG set	<b>510</b>
14	Operator Batching plant	<b>575</b>
15	Operator Bus/Ambulance/ Lorry/ Tanker	<b>570</b>
16	Operator Concrete / Asphalt mixer	<b>510</b>
17	Operator Concrete / Asphalt paver	<b>510</b>
18	Operator Concrete pump / Placer/ ice plant	<b>510</b>
19	Operator Core drilling machine	<b>570</b>
20	Operator Crane/ Tower crane/ Cable way	<b>570</b>
21	Operator Drilling jumbo / Loco / Winch	<b>510</b>
22	Operator Grouting/ Guniting/ Shotcreting	<b>510</b>
23	Operator Jackhammer/Pneumatic tamper	<b>510</b>
24	Operator Pump / Ventilation fan	<b>510</b>
25	Operator Lathe/Drilling/Shearing machine	<b>570</b>
26	Operator Bending / Planing machine	<b>510</b>
27	Operator Road roller	<b>510</b>

Sl No.	CATEGORY OF WORKER	S. Rate for 2019-20
1	2	3
28	Operator Shovel / Scraper / Dozer	570
29	Operator Spillway / Sluice gate	510
30	Operator Crusher / Conveyor / Mucker	510
31	Operator Tipper / Dumper / Transit mixer	570
32	Operator Concrete vibrator	510
33	Operator Vibratory plain / pad foot roller	510
34	Operator Wagon drill / Drifter	570
35	Painter Cl- I	580
36	Plumber / Pipe fitter	580
37	Sarang / Khalasi	510
38	Spun pipe moulder	510
39	Stone chiseller Cl- I / Stone cutter Cl- I	515
40	Struct. steel Fabricator / Marker / Erector	620
41	Welder / Gas Cutter	510
42	Welder (X-ray quality)	570
<b>II.</b>	<b>SEMI SKILLED CATEGORY:</b>	
1	Asphalt Sprayer / Boiler attendant	460
2	Bhisti	460
3	Boatman with boat	460
4	Carpenter Cl- II / Erector shuttering	460
5	Cartman with double bullock cart	520
6	Cartman with single bullock cart	485
7	Chavali / Navagani	460
8	Crowbarman / Jumper man	460
9	Fitter Cl- II	460
10	Gang man / Head / Survey mazdoor	460
11	Gardener / Trained mali	460
12	Air compressor / DG set	460
13	Helper Batching plant	460
14	Helper Blasting	460

Sl No.	CATEGORY OF WORKER	S. Rate for 2019-20
1	2	3
15	Helper Bus/ Ambulance/ Lorry/ Tanker	460
16	Helper Bending/Shearing/Planing machine	460
17	Helper Carpenter	460
18	Helper Concrete / Asphalt mixer	460
19	Helper Concrete / Asphalt paver	460
20	Helper Core drilling machine	460
21	Helper Crane/ Tower crane/ Cable way	460
22	Helper Drilling jumbo / Loco / Winch	460
23	Helper Fitter / Fabrication/Electrician	460
24	Helper Grouting/ Guniting/ Shotcreting	460
25	Helper Jack hammer / Pneumatic tamper	460
26	Helper Laboratory / Instrumentation	460
27	Helper Road roller	460
28	Helper Shovel / Scraper / Dozer	460
29	Helper Crusher / Conveyor / Mucker	460
30	Helper Tipper / Dumper/ Transit mixer	460
31	Helper Vibrator	460
32	Helper Vibratory plain/ pad foot roller	460
33	Helper Wagon drill/ Drifter	460
34	Lineman Electric / Telephone	460
35	Mason Cl- II / Brick layer Cl-II	460
36	Mechanic Cl- II	460
37	Painter Cl- II	460
38	Patkari / Neeraganti / Sowdy	460
39	Stone Chiseller Cl- II	460
40	Stone breaker / Hammer man	460
41	Valve man / Canal sluice operator	460
<b>III.</b>	<b>UN-SKILLED CATEGORY:</b>	
1	Cement / Asphalt handling mazdoor	420
2	Civic worker	420
3	Man mazdoor	420

Sl No.	CATEGORY OF WORKER	S. Rate for 2019-20
1	2	3
4	Woman mazdoor	420
5	Watchman	420
<b>IV.</b>	<b>OTHER CATEGORY:</b>	
1	Care-taker / conductor / Lift Attender	470
2	Cook / Mess man	470
3	Dhobi	470
4	Diploma Engineer / Surveyor	750
5	Diver with headgear	590
6	Graduate / Laboratory Assistant	590
7	Graduate Engineer/ Geologist	960
8	Horticulture Assistant / Photographer	475
9	ITI certificate holder / Tracer / Printer	580
10	Literate mazdoor	450
11	Stenographer / Computer Operator	630
12	Telephone / Wireless Operator	570
13	Typist / Job Typist	570
14	CAD operator with Diploma in Engineering/General degree with CAD certificate	775
15	Jeep Driver	565
16	Data Processing Operator	775

**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 RESOURCES WORK ITEMS**

**STATEMENT OF RATES FOR MATERIALS FOR  
THE YEAR : 2019-20  
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 2019-20
1	2	3	4
1	Acetylene gas	cum	306
2	Asphalt 80/100 Grade	Kg	41
3	Binding wire	Kg	55
4	Burnt stone slab 10 cm thick	sqm	283
5	Cement 43 Gr/53 Gr <b>Note: Rate as fixed by the Government</b>	tonne	3900
6	Chequered plate	Kg	57
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 <b>exclusive of Seigniorage charges but</b> 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	41

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
12	Copper sheet 16 SWG	kg	<b>632</b>
13	Coursed rubble stone 30 x 30 x 45 cm	Each	<b>24</b>
14	Coursed rubble stone 30 x 30 x 60 cm	Each	<b>27</b>
15	Curing Compound	Ltr	<b>112</b>
16	D – cord	Rm	<b>6</b>
17	Delay - noiseless trunk	Each	<b>17</b>
18	Detonating fuse coil	Rm	<b>7</b>
19	Detonating shock tube / Cord relays	Rm	<b>33</b>
20	Detonator delay type	Each	<b>18</b>
21	Detonator electric	Each	<b>9</b>
22	Detonator ordinary	Each	<b>5</b>
23	Empty cement bag	Each	<b>5</b>
24	Explosive ANFO	kg	<b>40</b>
25	Explosive ANFO high strength booster	kg	<b>60</b>
26	Explosive small dia ( Kelvex-220 or equivalent)	kg	<b>60</b>
27	(a)Fine aggregate/ sand(un- screened) for Concrete & Filtering items) (b)Fineaggregate/Sand(unscreened)for filling	cum	<b>100</b>
28	Fine aggregate /Sand (Screened) for Mortar ,Plastering items and Sand blasting items ( <b>Rs.82 is added towards screening Charges</b> ) <b>Note: The above sand rates are kept same as that of SoR 2018-19 for estimation purpose. Once the Sand rate per cum is arrived as per the latest sand policy, the same shall be communicated in due course.</b>	cum	<b>182</b>
29	Geo-textile ( filter fabric ) 160 gsm	sqm	<b>89</b>
30	Geo-textile ( filter fabric ) 200 gsm	sqm	<b>105</b>
31	Geo-textile ( filter fabric ) 250 gsm	sqm	<b>120</b>
32	G I Pipe 100 mm dia B Class	Rm	<b>698</b>
33	G I Pipe 15 mm dia A class	Rm	<b>83</b>
34	G I pipe 25 mm dia A class	Rm	<b>140</b>
35	G I pipe 40 mm dia B class	Rm	<b>218</b>

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
36	G I pipe 50 mm dia A class	Rm	<b>250</b>
37	G I Pipe 80 mm dia B Class	Rm	<b>428</b>
38	G.I Bolts / Nuts and Washers	kg	<b>95</b>
39	G.I sheet ( plain )	tonne	<b>55621</b>
40	Hariyala turfing sods	sqm	<b>25</b>
41	Hectometer stone one line dressed	Each	<b>259</b>
42	Hemp yarn	kg	<b>64</b>
43	Honne wood planks	cum	<b>43180</b>
44	Hume pipe with collar 150 mm dia	Rm	<b>243</b>
45	Hume pipe with collar 300 mm dia	Rm	<b>530</b>
46	J- Bolts 30 cm long	Each	<b>35</b>
47	Jungle wood planks	cum	<b>18390</b>
48	Khandki stone 15 to 20 cm height	Each	<b>11</b>
49	Khandki stone 20 to 25 cm height	Each	<b>15</b>
50	Khandki stone 25 to 30 cm height	Each	<b>17</b>
51	Kilometer stone one line dressed	Each	<b>477</b>
52	LDPE sheet ( Geo membrane ) 500 micron thick	sqm	<b>81</b>
53	LDPE sheet ( Geo membrane ) 750 micron thick	sqm	<b>119</b>
54	LDPE sheet ( Geo membrane ) 1000 micron thick	sqm	<b>164</b>
55	M S Bolts / Nuts / Washers	kg	<b>75</b>
56	Murum	cum	<b>195</b>
57	Oxalic acid	Ltr	<b>70</b>
58	Oxygen gas	cum	<b>40</b>
59	PVC sealing strip	Rm	<b>40</b>
60	PVC water stopper 310 mm wide	Rm	<b>415</b>
61	PVC pipe of 100 mm dia	Rm	<b>150</b>
62	Reinforcement steel (HYSD/TMT ) <b>Note: As per Monthly rate fixed by Sub-Committee</b>	tonne	<b>38,500(Rate for 5/2019)</b>

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
63	Resin bond Cement capsule	Each	44
64	Rough stone 20 x 20 x 75 cm	Each	23
65	Shahabad stone slab	sqm	234
66	Stone chips (at dump yard/Spoil )	cum	184
67	Stone chips ( at quarry )	cum	350
68	Structural steel angle / channel / beam / bars <b>Note: As per Monthly rate fixed by Sub-Committee</b>	tonne	43,500(Rate for 5/2019)
69	Structural steel plate / flats <b>Note: As per Monthly rate fixed by Sub-Committee</b>	tonne	44,500(Rate for 5/2019)
70	Super Plasticizer (Conplast RP-264 or equivalent )	kg	45
71	Synthetic Enamel paint 1st quality	Ltr	224
72	Synthetic adhesive ( Resin + Hardener )	Kg	292
73	Tar felt joint filler board 12 mm thick	sqm	336
74	Tar felt joint filler board 20 mm thick	sqm	510
75	Through stones 20 x 20 x 30 to 45 cm	Each	22
76	Through stones 25 x 25 x 45 to 60 cm long	Each	39
77	Through stones 30 x 30 x 65 to 75 cm long	Each	58
78	Un-coursed rubble stones ( at dump yard /Spoil)	cum	154
79	Un-coursed rubble stones ( at quarry)	cum	316
80	Water proofing compound	kg	67
81	Welding electrodes 4 mm dia	Each	12

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
82	Wire brush	Each	<b>38</b>
83	Wire mesh 20 gauge	sqm	<b>214</b>
84	Zinc chromate red oxide primer paint	Ltr	<b>150</b>
85	inorganic zinc silicate	Ltr	<b>502</b>
86	solvent less coal tar epoxy paint	Ltr	<b>244</b>
87	Zinc phosphate primer	Ltr	<b>186</b>
88	Allkyd based iron oxide paint	Ltr	<b>150</b>
89	a) Cost of hdpe (90mm dia)	Rm	<b>203</b>
	b) light black MS casing pipe 100 mm dia (4mm thick)	Rm	<b>423</b>
90	welded steel wire fabric 100X100X5 mm size	Kg	<b>172</b>
91	Protective Mastic	Ltr	<b>416</b>
92	Solventless coal tar epoxy (brown)	Ltr	<b>256</b>

**ADDITIONAL MATERIALS FOR G A T E S & HOISTS  
FOR THE YEAR: 2019-20**

**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.

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Alloy steel ( IS : 1570-carbon steel ) shafts	Kg	222
2	Alloy steel ( IS : 1570-stainless steel ) pins	Kg	408
3	Bolt / Nut / Washer ( hot dipped galvanized )	Kg	132
4	Bolt / Nut / Washer ( stainless steel )	Kg	345
5	Bronze/Aluminum alloy(IS:305)bearings/bushes	Kg	890
6	Cast iron blocks	Kg	80
7	Cast steel drums / gears	Kg	215
8	Cast steel pinions	Kg	210
9	Cast steel wheels / pulleys / hubs / rollers / Retainers	Kg	179
10	Chemical for de-greasing/ de-rusting/phosphate Coating	Ltr	116
11	Coal tar epoxy paint	Ltr	175
12	Forged steel hooks / shackles	Kg	254
13	MS pipe 200 / 300 mm dia	Kg	163
14	MS pipe 32 mm dia	Rm	174
15	MS pipe 25 mm dia	Rm	141
16	Rubber bottom seal ( IS : 11855 ) (100mmX14 mm)	Rm	632
17	Rubber side seal ( music note type Teflon claded ) ( IS : 11855 ) (36ØX113mmX14mm)	Rm	1350
18	Rubber side seal ( music note type uncladed ) ( IS : 11855 ) (36ØX113mmX14mm)	Rm	979

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
19	Rubber side seal Z-type ( IS : 11855 ) (36ØX120mmX19mm)	Rm	1295
20	Rubber corner seal ( Teflon claded ) ( IS : 11855 ) (36Ø)	Each	1359
21	Rubber corner seal ( un claded ) ( IS : 11855 ) (36Ø)	Each	959
22	Stainless steel plates / flats	Kg	43.5
23	Welding electrode 4 mm dia x 450 mm ( radiographic low hydrogen )	Each	15
24	Welding electrode 4 mm dia x 450 mm ( stainless steel )	Each	21
25	Wire rope 6x37 constn ( IS : 2266 )	Kg	186
26	Zinc	Kg	180
27	Zinc rich ( zinc content : 90 % ) epoxy primer	Ltr	562

**MATERIALS FOR POWER SUPPLY WORKS FOR THE  
YEAR : 2019-20**

<b>Sl No.</b>	<b>Description of Material</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
1	Electric pole with fixtures	Each	<b>For establishing Electrical Sub-Stations at the Project Sites wherever necessary, the rates approved by APTRANSCO may be followed.</b>
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	

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**  
**DETAILS OF CAPITAL COST OF MACHINERY / EQUIPMENT FOR THE**  
**YEAR: 2019-20**

**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.

<b>Sl No:</b>	<b>DESCRIPTION OF MACHINERY / EQUIPMENT</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Agitator car / Transit mixer 2 cum ( excluding tyres )	Each	1787168
	tyres and tubes 6 sets		71488
2	Air compressor 5 cmm electric	Each	590185
3	Air compressor 7 cmm diesel	Each	789682
4	Air compressor 7 cmm electric	Each	719021
5	Air compressor 8.5 cmm diesel	Each	901895
6	Air compressor 8.5 cmm electric	Each	930993
7	Air compressor 15 cmm electric	Each	1138797
8	Angle Dozer 90 hp	Each	4551040
9	Batching plant 0.5 cum with accessories(6 Cum/hr)	Each	997486
10	Batching plant 2 x 1.00 cum with accessories ( 15 Cum/hr)	Each	3528615
11	Batching plant 2 x 1.50 cum with accessories ( 50 Cum/hr)	Each	5403066
12	Bending machine	Each	480414
13	Clamp shell and hoisting ropes	Each	27198
14	Concrete bucket 1.5 cum	Each	46549
15	Concrete hand mixer 45/30 ltr	Each	12884
16	Concrete mixer 300/200 ltr(diesel)	Each	124688
17	Concrete mixer 300/200 ltr ( electric )	Each	120530
18	Concrete mixer 600/400 ltr(diesel)	Each	216120
19	Concrete mixer 600/400 ltr ( electric )	Each	211962

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No:</b>	<b>DESCRIPTION OF MACHINERY / EQUIPMENT</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
20	Concrete paver 100 Sqm / hr	Each	1962563
21	Convey mucker ( excluding tyres )	Each	3204429
	tyres and tubes 6 sets		71488
22	Core drilling machine	Each	914360
23	Diesel generating set 30 KVA	Each	411459
24	Diesel generating set 50 KVA	Each	531989
25	Diesel Loco 45 hp	Each	1762228
26	Dewatering pump 5 hp diesel	Each	33246
27	Dewatering pump 5 hp electric	Each	20362
28	Dewatering pump 10 hp diesel	Each	49879
29	Dewatering pump 10 hp electric	Each	45721
30	Dewatering pump 20 hp diesel	Each	157934
31	Dewatering pump 20 hp electric	Each	83126
32	Drifter	Each	879449
33	Drilling jumbo ( excluding tyres )	Each	1082277
	tyres and tubes 6 sets		71488
34	Dumper 4.5 cum ( excluding tyres )	Each	1205299
	tyres and tubes 6 sets		71488
35	Geophysical Ele.resistivity meter	Each	444194
36	Grouting pump	Each	84791
37	Guniting / sand blasting equipment	Each	253800
38	Ice plant with accessories 30 t / day	Each	2132135
39	Jack hammer	Each	54027
40	Needle vibrator 40 mm petrol	Each	16623
41	Needle vibrator 40 mm electric	Each	17461
42	Needle vibrator 60 mm petrol	Each	17870
43	Needle vibrator 60 mm electric	Each	21200
44	Planing machine 4 m stroke	Each	707027
45	Plate shearing machine up to 12 mm	Each	385242

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No:</b>	<b>DESCRIPTION OF MACHINERY / EQUIPMENT</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
46	Pneumatic placer 0.5 cum	Each	482120
47	Pneumatic tamper	Each	70651
48	Pug cutting machine	Each	14508
49	Pusher leg	Each	47131
50	Road roller diesel 10 t	Each	706557
51	Shovel 0.50 cum 75 hp	Each	3117156
52	Shovel 0.85 cum 110 hp	Each	5303318
53	Stationery derrick crane 5 t	Each	542799
54	Tipper 5 cum ( excluding tyres )	Each	1350769
	tyres and tubes 6 sets		71488
55	Tipping tub 1.5 cum	Each	199497
56	Tower crane 5 tonne	Each	6213520
57	Transformer 250 KVA	Each	433395
58	Truck 10 t ( excluding tyres )	Each	1226081
	tyres and tubes 6 sets		71488
59	Truck mounted derrick crane 5 t ( excluding tyres )	Each	1629233
	tyres and tubes 6 sets		71488
60	Upright drilling machine	Each	46549
61	Ventilation fan 20 hp	Each	235676
62	Vibratory pad foot roller 8 t	Each	2452162
63	Wagon drill	Each	540306
64	Water tanker 8000 ltr (excluding tyres)	Each	1329773
	tyres and tubes 6 sets		71488
65	Welding set	Each	43218
66	Winch 35 hp electric	Each	311721
67	Hydraulic Truck Crane 30T	Each	12039897
	tyres and tubes 6 sets		153960
68	Hydraulic Truck Crane 16T	Each	8637319
	tyres and tubes 6 sets		153960

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No:</b>	<b>DESCRIPTION OF MACHINERY / EQUIPMENT</b>	<b>UNIT</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
69	Heavy Duty Airless Spray Painting Equipment	Each	<b>405451</b>
70	Concrete Placer Pump(25 Cum/hr)(Electric)	Each	<b>2829905</b>

**ACCESSORIES TO MACHINERY / EQUIPMENT FOR THE YEAR : 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Casing shoe bit	Each	<b>10480</b>
2	Diamond core bit BX size	Each	<b>10580</b>
3	Diamond core bit NX size	Each	<b>12700</b>
4	Double tube core barrel	Each	<b>13540</b>
5	Extension drill rod with coupling sleeve	Rm	<b>1921</b>
6	Jack hammer drill rod 1.5 m	Each	<b>3647</b>
7	Jack hammer drill rod 2.5 m	Each	<b>5670</b>
8	Nozzle for Guniting / sand blasting gun	Each	<b>633</b>
9	Paving Cylinder	Each	<b>28030</b>
10	Rails 30R ( 30 kg / m )	tonne	<b>51400</b>
11	Reamer shell	Each	<b>5140</b>
12	T.C. Cross bit 50 mm dia	Each	<b>4990</b>
13	T.C. Cross bit 75 mm dia	Each	<b>9980</b>
14	T.C. Cross bit 100 mm dia	Each	<b>11980</b>
15	Tyres and Tubes for truck	Set	<b>14580</b>
16	Wire rope 16 mm dia	Rm	<b>260</b>
17	Excavation of drain with Excavator	cum	<b>38</b>

**AGGREGATE CRUSHING & PROCESSING PLANT**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
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 : 2019-20**

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.

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Air hose 25 mm dia	Rm	<b>164</b>
2	Air hose 50 mm dia	Rm	<b>254</b>
3	Demand charges (HT-I : General-11 KV category) on power supply(as per APEPDCL tariff)	KVA / month	<b>475</b>
4	Diesel	Ltr	<b>71.06</b>
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	<b>9.50</b>
6	Excise duty on Gates / Hoist supplies	%	<b>0%</b>
7	Insurance charges on machinery	% / annum	<b>1%</b>

**Part I-Basic Input data for WR Work items – Common SoR 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
8	Interest on capital cost	% / annum	11%
9	Lubricants	Ltr	220
10	Petrol	Ltr	77
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	12797
29	Grease	Kg	243
30	Welding holder set ( cable / holder / gloves / mask etc )	Each	6884
31	Use rate of ropes	LS	156

**MATERIALS FOR GATES AND HOISTS**  
**FOR THE YEAR : 2019-20**

<b>Sl No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>UNIT</b>	<b>S Rate for 2019-20</b>
1	Worm reducers	Each	<b>177990</b>
2	Electric motor 20 hp(Double Shaft)	Each	<b>96009</b>
3	Electric motor 17.5 hp(Double Shaft)	Each	<b>68055</b>
4	Electric motor 12.5 hp(Double Shaft)	Each	<b>57583</b>
5	Electric motor 5 hp(Double Shaft)	Each	<b>26176</b>
6	Electric motor 3 hp (Double Shaft)	Each	<b>18319</b>
7	Electric motor 2 hp (Double Shaft)	Each	<b>10002</b>
8	Floating shaft 300 mm dia	Kg	<b>153</b>
9	Manual operating system	Each	<b>26809</b>
10	Gate position indicator	Each	<b>161899</b>
11	Ele-magnetic brake	Each	<b>27923</b>
12	Electric cable / switch / control panel etc	LS	<b>45425</b>
13	Wire rope sockets	Each	<b>4393</b>

**Materials other than covered under WR Work  
items For the year 2019-20  
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 2019-20
1	2	3	4
M-002	Quarried stone 150 - 200 mm size for Hand Broken	Cum	145
M-003	Boulder with minimum size of 300 mm for Pitching	Cum	160
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	113
M-009	Granular Material or hard Murum for GSB works	Cum	Deleted
M-010	Granular Material or hard Murum for GSB works	Cum	95
M-011	Fly ash conforming to IS: 3812 ( Part II & I)	Cum	64

**Part I - Materials not covered under WR Work items basic data– Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
	For item No.M-012 to M-055 the note shall be as follows 1) The rates mentioned are <b>exclusive</b> of Seigniorage charges <b>but inclusive of</b> 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)		
M-012	Filter media/Filter Material as per Table 300-3 (MoRT&H Specification)	Cum	<b>335</b>
M-013	Close graded Granular sub-base Material 53 mm to 9.5 mm	Cum	<b>650</b>
M-014	Close graded Granular sub-base Material 37.5 mm to 9.5 mm	Cum	<b>670</b>
M-015	Close graded Granular sub-base Material 26.5 mm to 9.5 mm	Cum	<b>709</b>
M-016	Close graded Granular sub-base Material 9.5 mm to 4.75 mm	Cum	<b>590</b>
M-017	Close graded Granular sub-base Material 9.5 mm to 2.36 mm	Cum	<b>580</b>
M-018	Close graded Granular sub-base Material 4.75mm to 2.36 mm	Cum	<b>510</b>
M-019	Close graded Granular sub-base Material 4.75mm to 75 micron mm.	cum	<b>485</b>
M-020	Close graded Granular sub-base Material 2.36 mm	Cum	<b>485</b>
M-021	Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve.	Cum	<b>350</b>

**Part I - Materials not covered under WR Work items basic data– Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-022	Coarse graded Granular sub-base Material 2.36 mm & below	Cum	<b>deleted</b>
M-023	Coarse graded Granular sub-base Material 4.75mm to 75 micron mm	cum	<b>465</b>
M-024	Coarse graded Granular sub-base Material 4.75 mm to 2.36 mm	Cum	<b>465</b>
M-025	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm	Cum	<b>565</b>
M-026	Coarse graded Granular sub-base Material 26.5 mm to 4.75 mm	Cum	<b>618</b>
M-027	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm	Cum	<b>619</b>
M-028	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm	Cum	<b>684</b>
M-029	Coarse graded Granular sub-base Material 53 mm to 26.5mm	Cum	<b>848</b>
M-030	Aggregates below 5.6 mm	Cum	<b>557</b>
M-031	Aggregates 22.4 mm to 2.36 mm	Cum	<b>911</b>
M-032	Aggregates 22.4 mm to 5.6 mm	Cum	<b>1037</b>
M-033	Aggregates 45 mm to 2.8 mm	Cum	<b>660</b>
M-034	Aggregates 45 mm to 22.4 mm	Cum	<b>Rate as per item no.9 of Material rates of WRD.</b>
M-035	Aggregates 53 mm to 2.8 mm	Cum	<b>911</b>
M-036	Aggregates 53 mm to 22.4 mm	Cum	<b>860</b>
M-037	Aggregates 63 mm to 2.8 mm	Cum	<b>705</b>
M-038	Aggregates 63 mm to 45 mm	Cum	<b>655</b>

**Part I - Materials not covered under WR Work items basic data– Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
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	700
M-042	Aggregates 13.2 mm to 0.09 mm	Cum	795
M-043	Aggregates 13.2 mm to 5.6 mm	Cum	915
M-044	Aggregates 13.2 mm to 10 mm	Cum	1020
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	1120
M-047	Aggregates 19 mm to 6 mm	Cum	1035
M-048	Aggregates 37.5 mm to 19 mm	Cum	1095
M-049	Aggregates 37.5 mm to 25 mm	Cum	1135
M-050	Aggregates 6 mm nominal size	Cum	725
M-051	Aggregates 10 mm nominal size	Cum	920
M-052	Aggregates 13.2/12.5 mm nominal size	Cum	1080
M-053	Aggregates 20 mm nominal size	Cum	1340
M-054	Aggregates 25 mm nominal size	Cum	1290
M-055	Aggregates 40 mm nominal size	Cum	830
M-056	AC pipe 100 mm dia	Metre	Rate as per PH item
M-057	Acrylic polymer bonding coat	Litre	465
M-058	Aluminum Paint	Litre	265
M-059	Aluminum alloy plate 2mm Thick	Sqm	335

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-060	Aluminum alloy/Galvanized steel	Tonne	<b>61,250</b>
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	<b>835</b>
M-062	Aluminum studs 100 x 100 mm fitted with lens reflectors	No's	<b>As per local market rate</b>
M-063	Barbed wire	Kg	<b>70</b>
M-064	Bearing (Cost of parts)	No's	<b>500</b>
M-065	Bearing (Cast steel rocker bearing assembly of 250 tonne )	No's	<b>690</b>
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 <sup>3</sup>	<b>As per local Market rates.</b>
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	<b>7.0</b>
M-072	Binding wire	Kg	<b>Rate as per item no.3 of Material rates of WRD.</b>
M-073	Bitumen ( Cationic Emulsion )	Tonne	<b>As per rates fixed by R&amp;B Dept based on refinery rates</b>
M-074	Bitumen (60-70 grade)	Tonne	

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-075	Bitumen (80-100 grade )	Tonne	<b>As per rates fixed by R&amp;B Dept based on refinery rates</b>
M-076	Bitumen (Cutback )	Tonne	
M-077	Bitumen (emulsion)	Tonne	
M-078	Bitumen (modified graded)	Tonne	
M-079	Brick	Each	<b>As per Building SSR</b>
M-080	C.I. shoes for the pile	Kg	<b>54</b>
M-081	Cement	Tonne	<b>Rate as per item no.5 of Material rates of WRD.</b>
M-082	Cold twisted bars (HYSD/TMT Bars)	Tonne	<b>Rate as per item no.62 of Material rates of WRD</b>
M-083	Collar for joints 300 mm dia	No's	<b>133</b>
M-084	Compressible Fibre Board(20mm thick)	Sqm	<b>490</b>
M-085	Connectors/ Staples	Each	<b>67</b>
M-086	Copper Plate(12m long x 250mmwide)	Kg	<b>265</b>
M-087	Corrosion resistant Structural steel	Tonne	<b>51645</b>
M-088	Corrugated sheet, 3 mm thick, "Tie" beam section railing	Kg	<b>181</b>
M-089	Credit for excavated rock found suitable for use	Cum	<b>202</b>
M-090	Curing compound	Liter	<b>105</b>
M-091	Delineators from ISI certified firm as per the standard drawing given in IRC - 79	Each	<b>As per local market rate</b>
M-092	Earth Cost or compensation for selected earth for shoulders taken from Private Land	Cum	<b>86</b>
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	<b>As per local market rate</b>
M-094	Electric Detonators @ 1 detonator for 1/2 gelatin stick of 125 gms each	100 no's	<b>Rate as per item No. 21 of WRD</b>
M-095	Epoxy compound with accessories for preparing epoxy mortar	Kg	<b>290</b>
M-096	Epoxy mortar	Kg	<b>95</b>

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-097	Epoxy primer	Kg	<b>496</b>
M-098	Epoxy resin-hardener mix for prime coat	Kg	<b>512</b>
M-099	Flag of red color cloth 600 x 600 mm	Each	<b>25</b>
M-100	Flowering Plants	Each	<b>42</b>
M-101	Galvanized MS flat clamp	No's	<b>172</b>
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	<b>159</b>
M-103	Galvanized structural steel plate 200 mm wide, 6 mm thick, 24 m long	Kg	<b>820</b>
M-104	Gelatin 80%	Kg	<b>59</b>
M-105	Geo grids	Sqm	<b>As per local market rate</b>
M-106	(a)Geo membrane 500 micron thick	Sqm	<b>Rate as per item No. 52 of WRD</b>
	(b) Geo membrane 750 micron thick	Sqm	<b>Rate as per item No. 53 of WRD</b>
	(c) Geo membrane 1000 micron thick	Sqm	<b>Rate as per item No. 54 of WRD</b>
M-107	Geo nets	Sqm	<b>As per local market rate</b>
M-108	(a)Geo textile 160 gsm	Sqm	<b>Rate as per item No. 29 of WRD</b>
	(b) Geo textile 200 gsm	Sqm	<b>Rate as per item No. 30 of WRD</b>
	(c) Geo textile 250 gsm	Sqm	<b>Rate as per item No. 31 of WRD</b>
M-109	Geo textile filter fabric	Sqm	<b>As per local market rate</b>
M-110	GI bolt 10 mm Dia	No's	<b>19</b>

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-111	Grouting pump with agitator	Hour	<b>Rate covered in Item No.36 of hire charges of machinery of Water Resources work items</b>
M-112	Grass (Doob)	Kg	<b>6</b>
M-113	Grass (Fine)	Kg	<b>8</b>
M-114	HDPE pipes 75mm dia	Metre	<b>Rate as per PH items</b>
M-115	HDPE pipes 90mm dia	Metre	
M-116	Hedge plants	Each	
M-117	Helical pipes 600mm diameter	Metre	<b>As per local market rate</b>
M-118	Hot applied thermoplastic compound	Litre	
M-119	HTS strand	Tonne	<b>36,265</b>
M-120	Joint Sealant Compound	Kg	<b>60</b>
M-121	Jute netting, open weave, 2.5 cm square opening for seeding and Mulching	Sqm	<b>79</b>
M-122	LDO for steam curing	Litre	<b>59</b>
M-123	M.S. Clamps	Kg	<b>Deleted</b>
M-124	M.S. Clamps	Kg	<b>As per local market rate</b>
M-125	M.S. shoes @ 35 Kg per pile of 15 m	Kg	
M-126	Mild Steel bars	Tonne	<b>40,470</b>
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 representative	Metre	<b>As per local market rate</b>

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
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	As per local market rate
M-129	Nipples 12mm	No's	18
M-130	Nuts and bolts	Kg	89
M-131	Paint	Litre	206
M-132	Pavement Marking Paint	Litre	As per local market rate
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	
M-136	Pesticide	Kg	As per local market rate
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	49
M-139	Plastic tubes 50 cm dia , 1.2 m high	No's	As per local market rate
M-140	Polymer braids	Metre	
M-141	Pre moulded Joint filler, 25 mm thick for expansion joint.	Sqm	273
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	

Sl. No.	Description	Unit	S. Rate for 2019-20
1	2	3	4
M-144	Pre-moulded asphalt filler board	Sqm	Rate as per local competitive quotations
M-145	Pre-packed cement based polymer concrete of strength 45 Mpa at 28 days	Kg	
M-146	Sealant Primer	Kg	154
M-147	Quick setting compound	Kg	28
M-148	Random Rubble Stone	Cum	250
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	As per local market rate
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	
M-156	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Stainless steel strips)	Metre	
M-157	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Aluminum strips)	Metre	

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
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	70
M-162	Seeds(Grass)	Kg	18
M-163	Cost of Selected earth	Cum	Deleted
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	2,195
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	254
M-175	Steel pipe 50 mm external dia as per IS:1239	Metre	495
M-176	Steel wire rope 20 mm	Kg	164

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-177	Steel wire rope 40 mm	Kg	<b>187</b>
M-178	Strip seal expansion joint	Metre	<b>Rate as per local competitive quotations</b>
M-179	Structural Steel(HYSD/TMT bars)	Tonne	<b>Rate as per item no.62 of Material rates of WRD</b>
M-180	Super plasticizer admixture IS marked as per 9103-1999	Kg	<b>Rate as per item no.70 of Material rates of WRD</b>
M-181	Synthetic Geo grids as per clause 3102.8 and approved design and specifications.	Sqm	<b>Rate as per local competitive quotations</b>
M-182	Through and bond stone (a) 20X20x30 to 45 cm long	Each	<b>Rate as per item no.75 of Material rates of WRD.</b>
	Through and bond stone (b) 25X25x45 to 60 cm long	Each	<b>Rate as per item no.76 of Material rates of WRD.</b>
	Through and bond stone (c) 30X30x65 to 75 cm long	Each	<b>Rate as per item no.77 of Material rates of WRD.</b>
M-183	Tie rods 20mm diameter	No's	<b>48</b>
M-184	Tiles size 300 x 300 mm and 25 mm thick	Each	<b>As per Building SSR</b>
M-185	Timber	Cum	
M-186	Traffic cones with 150 mm reflective sleeve	No's	<b>Rate as per local competitive quotations</b>
M-187	Tube anchorage set complete with bearing plate, permanent wedges etc	No's	
M-188	Un slaked lime	Tonne	<b>2598</b>
M-189(a)	Water charges(Urban)	KiloLitre	<b>107</b>
(b)	Water charges(Rural)	KiloLitre	<b>80</b>
M-190	Water based cement paint	Litre	<b>As per Building SSR</b>

**Part I - Materials not covered under WR Work items basic data – Common SoR 2019-20**

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>S. Rate for 2019-20</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
M-191	Welded steel wire fabric	Kg	<b>135</b>
M-192	Wire mesh 50mm x 50mm size of 3mm wire	Kg	<b>222</b>
M-193	Wooden ballies 2" Dia for bracing	Each	<b>As per Building SSR</b>
M-194	Wooden ballies 8" Dia and 9 m long	Each	
M-195	Wooden packing	Cum	<b>1117</b>
M-196	Wooden staff for fastening of flag 25 mm dia, one m long	Each	<b>70</b>
Item 8.3	Printing new letter and figures of any shade (ii) English Roman	per cm height per letter	<b>1.6</b>
Item 8.8	Painting Two Coats on New Concrete Surfaces	Sqm	<b>As per Building SSR</b>
Item 8.9	Painting angle iron post Two Coats	Sqm	<b>As per Building SSR</b>
	<b>Miscellaneous Items</b>		
1	Benching old embankment slopes 0.45 X 0.45 M	RM	<b>4.2</b>
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. <b>Note: During the emergency conditions such as floods and other natural calamities, the above rate is allowed to enhance by 25% for 1<sup>st</sup> warning level and above, keeping in view of the difficulty in availability of labour and vehicles.</b>	per bag	<b>16</b>
3	Rough stone for revetment 225mm thick	Cum	<b>145</b>
4	Eradication of Weed growth from Drains, Canals by spraying Chemicals	Sqm	<b>2</b>
5	Thinner	Ltr	<b>80</b>
6	Gear Oil	Ltr	<b>235</b>
7	Cardium compound	kg	<b>95</b>

# Conveyance Charges of Material

**CONVEYANCE CHARGES OF MATERIALS AS PER SoR 2019-20**  
**(COMMON TO ALL DEPARTMENTS).**

**LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS  
FOR THE YEAR: 2019-20**

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 exclusive 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 exclusive of Contractor's profit and overhead charges of 13.615%
15. 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 minutes of meeting of Sub-Committee held on 29.06.2015. (The conveyance charges, loading & unloading charges for cement are displayed for information purpose only).

**A. (LEAD) CONVEYANCE CHARGES FOR MATERIALS BY  
HEAD LOAD FOR THE YEAR: 2019-20**

Sl No.	Total distance ( Total lead includes initial lead )	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate	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	60.00	35.00	76.40
3	Total lead up to 150 m	120.00	70.00	152.70

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.

**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: 2019-20  
( 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/Siz e 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 water/ 1000 litres	(Lead) charges for trucks per 1000 nos. of bricks
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Lead up to 1 km	28.30	27.40	17.10	40.40	17.60	45.70
2	Lead up to 2 km	39.50	38.40	24.00	56.50	24.60	64.00
3	Lead up to 3 km	52.70	52.70	33.00	77.50	32.80	85.40
4	Lead up to 4 km	64.00	64.00	40.00	94.20	39.80	103.60
5	Lead up to 5 km	75.30	75.30	47.10	110.80	46.90	121.90
6	for Every km beyond 5 km up to 30 km	11.30	11.30	7.10	16.60	7.00	18.30
7	for Every km beyond	9.40	9.40	5.90	13.90	5.90	15.20

**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	19.80	39.90	65.80	78.80	54.80
2	Unloading	9.90	19.95	65.80	78.80	54.80

**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	103.10	123.00	157.20	170.30	205.70
2	Unloading	37.60	61.50	157.20	170.30	205.70

**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	45.60	90.80
2	Unloading	14.30	14.30

**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
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
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	7.00	5.10	9.30

# **HIRE CHARGES**

**HIRE CHARGES OF PLANT &  
MACHINERY FOR THE YEAR : 2019-20**

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	630.40	1074.80	321.40	2026.60
2	Air compressor 5 cmm ( electric )	Hour	90.00	287.00	189.20	566.20
3	Air compressor 7 cmm ( diesel )	Hour	200.60	879.40	242.10	1322.10
4	Air compressor 7 cmm ( electric )	Hour	109.60	382.70	189.20	681.50
5	Air compressor 8.5 cmm ( diesel)	Hour	229.10	1099.20	242.10	1570.40
6	Air compressor 8.5 cmm ( electric)	Hour	142.00	478.40	189.20	809.60
7	Air compressor 15 cmm ( electric)	Hour	115.40	1063.10	201.80	1380.30
8	Angle Dozer 90 hp	Hour	1426.00	751.90	267.80	2445.70
9	Batching plant 0.5 cum ( 6 Cum/hr)	Hour	95.30	127.60	387.40	610.30
10	Batching plant 2 x 1.00 cum (15 Cum/hr)	Hour	337.00	382.70	387.40	1107.10
11	Batching plant 2 x 1.50 cum ( 50 Cum/hr)	Hour	516.00	467.70	387.40	1371.10
12	Bending machine 3000 x 12 mm	Hour	38.60	127.60	151.30	317.50
13	Clamp shell and hoisting ropes	Hour	4.90	0.00	0.00	4.90
14	Concrete bucket 1.5 cum	Hour	13.20	0.00	0.00	13.20
15	Concrete hand mixer 45 / 30 ltr	Hour	4.60	0.00	0.00	4.60
16	Concrete mixer 300 / 200 ( diesel)	Hour	44.50	97.70	252.20	394.40
17	Concrete mixer 300 / 200 ltr ( electric)	Hour	43.00	42.50	252.20	337.70
18	Concrete mixer 600 / 400 ( diesel)	Hour	77.10	195.40	252.20	524.70
19	Concrete mixer 600 / 400 ltr ( electric)	Hour	75.60	85.00	252.20	412.80
20	Concrete paver 100 sqm / hr	Hour	296.30	0.00	484.20	780.50
21	Convey mucker	Hour	684.00	296.00	201.80	1181.80
22	Core drilling machine	Hour	265.20	293.10	321.40	879.70
23	Diesel generating set 30 KVA	Hour	54.70	781.70	151.30	987.70
24	Diesel generating set 50 KVA	Hour	70.80	1172.50	151.30	1394.60
25	Diesel Loco 45 hp	Hour	317.20	659.50	189.20	1165.90
26	Dewatering pump 5 hp ( diesel )	Hour	8.40	97.70	127.30	233.40
27	Dewatering pump 5 hp ( electric )	Hour	2.50	42.50	95.50	140.50

**Machinery Hire Charges – Common SoR 2019-20**

<b>Sl. No</b>	<b>Description of machinery</b>	<b>Unit</b>	<b>Hire charge in Rs</b>	<b>Fuel charge in Rs</b>	<b>Crew Charge in Rs.</b>	<b>Total in Rs</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
28	Dewatering pump 10 hp ( diesel )	Hour	12.70	195.40	127.30	335.40
29	Dewatering pump 10 hp ( electric)	Hour	5.60	85.00	95.50	186.10
30	Dewatering pump 20 hp ( diesel )	Hour	40.10	390.80	127.30	558.20
31	Dewatering pump 20 hp ( electric	Hour	10.20	170.10	95.50	275.80
32	Drifter	Hour	268.20	0.00	401.70	669.90
33	Drilling jumbo	Hour	306.30	52.80	201.80	560.90
34	Dumper 4.5 cum	Hour	482.80	492.40	257.10	1232.30
35	Geophysical Electric resistivity	Hour	92.60	0.00	0.00	92.60
36	Grouting pump	Hour	20.70	42.50	302.60	365.80
37	Guniting / sand blast equipment	Hour	99.80	0.00	252.20	352.00
38	Ice plant & accessories 30 t / day	Hour	159.10	1211.90	151.30	1522.30
39	Jack hammer	Hour	16.50	0.00	378.30	394.80
40	Needle vibrator 40 mm ( petrol )	Hour	6.40	21.20	181.50	209.10
41	Needle vibrator 40 mm ( electric )	Hour	6.70	8.50	181.50	196.70
42	Needle vibrator 60 mm ( petrol )	Hour	6.80	31.80	181.50	220.10
43	Needle vibrator 60 mm ( electric )	Hour	8.10	12.80	181.50	202.40
44	Planing machine 4 m stroke	Hour	106.80	127.60	242.10	476.50
45	Plate shearing machine up to 12	Hour	38.00	170.10	160.70	368.80
46	Pneumatic placer 0.5 cum	Hour	142.20	0.00	99.50	241.70
47	Pneumatic tamper	Hour	17.20	0.00	302.60	319.80
48	Pug cutting machine	Hour	5.80	4.30	0.00	10.10
49	Pusher leg	Hour	11.50	0.00	0.00	11.50
50	Road roller diesel 10 t	Hour	163.90	879.40	242.10	1285.40
51	Shovel 0.50 cum 75 hp	Hour	833.80	586.20	267.80	1687.80
52	Shovel 0.85 cum 110 hp	Hour	1418.60	1074.80	267.80	2761.20
53	Stationery derrick crane	Hour	71.60	0.00	0.00	71.60
54	Tipper 5 cum	Hour	371.40	369.30	200.90	941.60
55	Tipping tub 1.5 cum	Hour	53.40	0.00	0.00	53.40
56	Tower crane 5 tonne	Hour	720.80	221.10	214.20	1156.10
57	Transformer 250 KVA	Hour	5140.50	0.00	0.00	5140.50
58	Truck 10 t	Hour	344.30	369.30	200.90	914.50
59	Truck mounted derrick crane 5 t	Hour	432.10	369.30	200.90	1002.30
60	Upright drilling machine/grinder	Hour	18.70	42.50	222.30	283.50

**Machinery Hire Charges – Common SoR 2019-20**

<b>SL. N o</b>	<b>Description of machinery</b>	<b>Unit</b>	<b>Hire charge in Rs</b>	<b>Fuel charge in Rs</b>	<b>Crew Charge in Rs.</b>	<b>Total in Rs</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
61	Ventilation fan 20 hp	Hour	10.40	170.10	32.90	213.40
62	Vibratory pad foot roller 8 t	Hour	1115.70	1270.20	302.60	2688.50
63	Wagon drill	Hour	156.70	0.00	321.40	478.10
64	Water tanker 8000 ltr	Hour	366.80	369.30	200.90	937.00
65	Welding set	Hour	14.40	102.10	0.00	116.50
66	Winch 35 hp ( electric )	Hour	107.50	208.40	302.60	618.50
67	Hydraulic Truck Crane 30T	Hour	2574.10	1450.10	601.50	4625.70
68	Hydraulic Truck Crane 16T	Hour	1893.60	1282.40	601.50	3777.50
69	Heavy Duty Airless Spray Painting Equipment	Hour	100.90			100.90
70	Concrete Placer Pump (25 cum/hr) (Electric)	Hour	834.80	510.30	189.20	1534.30
71	Tractor with 2 T roller	Hour				345.00

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**Government of Andhra Pradesh**

**COMMON SCHEDULE OF RATES**  
**FOR THE YEAR 2019-20**  
*(Effective from 1<sup>st</sup> June, 2019)*

**R&B Department, AP**

# **ROAD & BRIDGE WORKS**

**INDEX**  
**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 (217.23 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, Jaggaiahpet 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 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 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.

**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 and Machinery Hire charges are excluding taxes.

# **LABOUR RATES**

Si. No	S.S. Item No.	Description	Unit (Per)	S o Rate for 2019-20 in Rs.	Remarks
1	2	3	4	5	6
		<b>(A) SKILLED WORKMEN</b>			
		<b>First Class</b>			
1	a	Stone cutter	Day	515	As per WR Dept. (S.No.39)
2	b	Mason & Brick Layer	Day	500	As per WR Dept. (S.No.11)
3	c	Carpenter	Day	580	As per WR Dept. (S.No.4)
4	d	Painter	Day	580	As per WR Dept. (S.No.35)
5	e	Plumber	Day	580	As per WR Dept. (S.No.36)
6	f	Welder	Day	510	As per WR Dept. (S.No.41)
7	g	Fitter	Day	550	As per WR Dept. (S.No.6)
8	h	Electrician	Day	575	As per WR Dept. (S.No.5)
9	1	Cook	Day	470	As per WR Dept. (S.No.2) Other Category
10	2	Mechanic	Day	530	As per WR Dept. (S.No.12)
11	3	Rigger	Day	536	
12	4	Rigger Syrang	Day	536	
13	5	Well Sinker	Day	536	
14	6	Blaster	Day	570	As per WR Dept. (S.No.3)
15	3	Bar bender	Day	625	As per WR Dept. (S.No.1)
16	7	Tipper and Heavy Vehicle Driver above 12 T	Day	570	As per WR Dept. (S.No.15)
17		Tanker and medium Vehicle driver (7.5 T to 12 T)	Day	534	
18		Tanker and Light Vehicle driver up to 7.5 T	Day	412	
19		Wagon Drill Operator upto 7.5 T	Day	532	
20	8	Lorry and Heavy Vehicle Driver above 12 T	Day	565	
21		Road Roller Driver (7.5 T to 12 T)	Day	510	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	514	
		<b><u>Operator</u></b>			
26	10	Pan Mixer	Day	551	
27		Concrete Mixer	Day	510	As per WR Dept. (S.No.16)
Si. No	S.S. Item	Description	Unit (Per)	S o Rate for 2019-20	Remarks

	No.			in Rs.	
1	2	3	4	5	6
28		Vibrator	Day	510	As per WR Dept. (S.No.32)
29		Composer	Day	513	
30		Jack Hammer	Day	510	As per WR Dept. (S.No.23)
31		Driller	Day	570	As per WR Dept. (S.No.34)
32		Boring Maistry	Day	493	
33	11	Pump operator	Day	510	As per WR Dept. (S.No.24)
34	12	Turner Grade-I	Day	536	
35	13	Wireless Operator	Day	570	As per WR Dept. (S.No.12) Other Category
36	14	Assistant Wireless Operator	Day	489	
37	15	Jeep Driver	Day	565	As per WR Dept. (S.No.15) Other Category
38	16	Work Inspector with I.T.I qualification	Day	580	As per WR Dept. (S.No.9) Other Category
39	17	Work Inspector with LCE, LME,L.E.E qualification	Day	750	As per WR Dept. (S.No.4) Other Category
40	18	Work Inspector with B.E (Civil, Mechanical and Electrical) qualification	Day	960	As per WR Dept. (S.No.7) Other Category
41	19	Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	520	As per WR Dept. (S.No.10)
42	20	Mason Spl. Grade for Mossaic and Polished shahabad stone floor	Day	529	
43	21 a(i)	Typist / Job Typist	Day	570	As per WR Dept. (S.No.13) Other Category
	a (ii)	Computer operator	Day	630	As per WR Dept. (S.No.11) Other Category
	b	CAD Operator with Diploma in Engineering / General degree with CAD certificate	Day	775	As per WR Dept. (S.No.14) Other Category
		<b>(B) SEMI –SKILLED WORKMEN</b>			
		<b>SECOND CLASS</b>			
44	a	Mason	Day	460	As per WR Dept. (S.No.35) Semi-Skilled
45	b	Brick Layer and Stone Cutter	Day	460	As per WR Dept. (S.No.35) Semi-Skilled
46	c	Carpenter	Day	460	As per WR Dept. (S.No.4) Semi-Skilled
47	d	Painter	Day	460	As per WR Dept. (S.No.37) Semi-Skilled
<b>Sl.no</b>	<b>S.S. Item</b>	<b>Description</b>	<b>Unit (Per)</b>	<b>S o Rate for 2019-20</b>	<b>Remarks</b>

	No.			in Rs.	
1	2	3	4	5	6
48	e	deleted			
49	f	Blacksmith	Day	495	As per WR Dept. (S.No.2) (Skilled)
50	g	Welder	Day	471	
51	h	Fitter	Day	471	
52	i	Electrician	Day	471	
53	2	Caulker	Day	471	
54	4	Tinker	Day	471	
55	5	Sawyer	Day	471	
56	6	Brick-Moulder	Day	471	
57	7	Pot-tile turner	Day	471	
58	8	Pan-tile turner	Day	471	
59	9	Brick and Lime Kiln man/Glazier	Day	471	
60	10	Telephone Operator	Day	570	As per WR Dept. (S.No.12) Other Category
61	11	Hand Driller	Day	472	
62	12	Quarry Man	Day	472	
63	13	Hammer Man	Day	460	As per WR Dept. (S.No.40) Semi-skilled
64	14	Thatcher	Day	471	
65	15	Fireman	Day	471	
66	16	Cleaner/Helper	Day	471	
67	17	Stone Packer	Day	471	
68	18	Jawali	Day	471	
69	19	Ex-Service man/Goorkha watchman	Day	471	
70	20	Ratton Worker	Day	471	
71	21	Mate	Day	471	
72	1	Head Mazdoor (Mukaddar)	Day	460	As per WR Dept. (S.No.10) Semi-Skilled

**(C) UNSKILLED WORKMEN**

73	2	Man Mazdoor	Day	420	As per WR Dept. (S.No.3) Un-Skilled
74	3	Watch Man	Day	420	As per WR Dept. (S.No.5) Un-Skilled
75	5	Woman Mazdoor	Day	420	As per WR Dept. (S.No.4) Un-Skilled
76	6 (b)	Helper/Cleaners/Sweepers/Scavangers/ Choukidars/Security Guards/Office Boys	Day	418	
77	<b>Note :</b> Whenever unskilled workmen are engaged for cleaning of Sewers & Septic Tanks, they may be paid double the above wages.				
	<b>(D) OTHER CONVEYANCE ITEMS</b>			<b>S o Rate for 2019-20 in Rs.</b>	Remarks

1	2	3	4	5	6
78	1	Single bullock with driver and cart	Day	485	As per WR Dept. (S.No.6) Semi-Skilled
79	2	Bullock pair with driver	Day	537	
80	3	Bullock pair with driver and cart	Day	520	As per WR Dept. (S.No.5) Semi Skilled
81	4	Bullock pair with driver and cart with pneumatic tyres	Day	598	
82	5	Bullock pair driver and kapila	Day	deleted	
83	6	Nava with crew	Day	460	As per WR Dept. (S.No.3) Semi Skilled
84	7	Punt thundal	Day	400	
85	8	Punt lascar	Day	400	
	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 2019-20 in Rs.	Remarks
1	2	3	4	5	6
		<b>(A) STONE AND ROAD MATERIALS</b>			
		<b>ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING, BURNING, SPLITTING.</b>			
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	<b>145.00</b>	As per WR Dept. (S.No.3) of Miscellaneous items
3	b.ii	For SS Revetment work 300 mm	1 cum	<b>160.00</b>	As per WR Dept. (M 003 of Materials 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	<b>250.00</b>	As per WR Dept. (M 148 of Materials 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	
		<b>COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING FOR SS FIRST SORT WORKS</b>			
14	23.a	Granite, Dolomite and trap	1 cum	274.30	
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	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2019-20 in Rs.	Remarks
1	2	3	4	5	6
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 x150 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	
		<b>HARD BROKEN STONE OF GRANITE, TRAP AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING</b>			
25	33.a	- do - 6mm size (SS 5)	1 cum	<b>524.00</b>	As per WR Dept. (M 050 of Materials excluding blasting charges Rs.70/- and Machine crushing charges @ 25%)
26	b	- do - 10mm size (SS 5)	1 cum	<b>680.00</b>	As per WR Dept. (M 051 of Materials excluding blasting charges Rs.70/- and Machine crushing charges @ 25%)
27	c	- do - 12mm size (SS 5)	1 cum	<b>808.00</b>	As per WR Dept. (M 052 of Materials excluding blasting charges Rs.70/- and Machine crushing charges @ 25%)

<b>RATES OF MATERIALS &amp; WORK ITEMS SSI No.</b>	<b>S.S. Item No.</b>	<b>Description</b>	<b>Unit (per)</b>	<b>S o Rate for 2019-20 in Rs.</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
28	d	- do - 20mm size (SS 5)	1 cum	<b>1016.00</b>	As per WR Dept. (M 053 of Materials excluding blasting charges Rs.70/- and Machine crushing charges @ 25%)
29	e	- do - 25mm size (SS 5)	1 cum	<b>976.00</b>	As per WR Dept. (M 054 of Materials excluding blasting charges Rs.70/- and Machine crushing charges @ 25%)
30	f	- do - 40mm size (SS 5)	1 cum	<b>608.00</b>	As per WR Dept. (M 055 of Materials excluding blasting charges Rs.70/- and Machine crushing charges @ 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%	
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	1 cum	17.00	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2019-20 in Rs.	Remarks
1	2	3	4	5	6
		addition of Rs. /- per Cum is allowed, deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.	1 cum	9.90	
		<b>SOFT BROKEN STONE SCREENED AND FREE FROM DUST</b>			
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	
		<b>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)</b>			
45	33a	-do- 2.36 to 5 mm size (IRC&MORTH)	1 cum	<b>350.00</b>	
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.
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	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2019-20 in Rs.	Remarks
1	2	3	4	5	6
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	
		<b>HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST</b>			
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	
		<b>OTHER ITEMS</b>			
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	
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	1 Cum	72.40	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2019-20 in Rs.	Remarks
1	2	3	4	5	6
		granite variety			
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	<b>113.00</b>	As per WR Dept. (M 008 of Materials other than covered under Irrigation Items )
91	35 a	Quarry rubbish	1 Cum	84.75	
92	B	HBG Stone Chips 2.36 mm and below	1 Cum	<b>350.00</b>	As per WR Dept. (Sl.No.67 of Materials)
93	36.a	Fine aggregate / <b>Sand</b> (un-screened) for Concrete & Filtering items	1 Cum	<b>100</b>	As per WR Dept. (Si. No. 27 of Materials) and will be revised as per the Govt. new sand policy
94	b.	Fine aggregate / <b>Sand</b> (unscreened) for filling	1 cum	<b>100</b>	
95	c	Fine aggregate / <b>Sand</b> (screened) for Mortar, Plastering items and Sand blasting items ( <b>Rs. 82/- is added towards screening charges</b> )	1 Cum	<b>182</b>	As per WR Dept. (Si. No. 28 of Materials) and will be revised as per the Govt. new sand policy
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	
		<b>(C) LIME AND CEMENT</b>			
97	40 to 41(c )			As per local prevailing rates based on competitive rates	
98	42	Cement excluding cost of empty cement bags	1 MT	<b>3900/-</b>	Monthly rates will be communicated

<b>RATES OF MATERIALS &amp; WORK ITEMS SSI No.</b>	<b>S.S. Item No.</b>	<b>Description</b>	<b>Unit (per)</b>	<b>S o Rate for 2019-20 in Rs.</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
					by the Govt
NOTE: (1) The rates are exclusive of VAT, Excise duty and 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		<b>(D) MORTARS</b>			
103	43 to 45	Items 43 to 45			
		<b>(E) METAL AND IRON WORKS</b>			
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 VAT, Excise duty and GST 2) The prices of steel will be reviewed and fixed on monthly basis and rates will be communicated separately.					
		<b>III RATES OF WORKS</b>			
		<b>(A) CLEARING SITE</b>			
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	

<b>RATES OF MATERIALS &amp; WORK ITEMS SSI No.</b>	<b>S.S. Item No.</b>	<b>Description</b>	<b>Unit (per)</b>	<b>S o Rate for 2019-20 in Rs.</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
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>(B) DISMANTLING</b>			
	<b>5</b>	<b>DISMANTLING, CLEARING AWAY MATERIALS USEFUL FOR REUSE.</b>			
137	a.i	Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	65.60	
	<b>7</b>	<b>Drilling holes in hard granite or sheet rock</b>			
	a)	<b>Manually ( Hand)</b>			
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)	<b>Pneumatic Compressor</b>			
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	
	<b>8</b>	<b>Grouting the holes with neat cement slurry excluding cost of steel</b>			

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2019-20 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	
		<b>White Washing and Painting works</b>			
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	
		<b>(S ) ROAD WORK ITEMS</b>			
		<b>PICKING OLD METALLED SURFACE TO DEPTH OF 40 TO 100 mm SPREADING OLD METAL AND NEW METAL SECTIONING INCLUDING EDGE BUNDS 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</b>			
		( For a compact thickness )			
	1 ( i )	<b>HARD METAL</b>			
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 )	<b>(For compact thickness of soft metal)</b>			
157	A	50 mm thickness	10 sqm	53.80	
158	B	75 mm thickness	10 sqm	63.90	

RATES OF MATERIALS & WORK ITEMS SSI No.	S.S. Item No.	Description	Unit (per)	S o Rate for 2019-20 in Rs.	Remarks
1	2	3	4	5	6
159	C	100 mm thickness	10 sqm	70.10	
	5	<b>Picking old metalled 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 )</b>			
		<b>HARD METAL</b>			
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	<b>59.00</b>	As per WR Dept. (M 104 of Materials other than covered under Irrigation Items)
166		Electric Detonators(For MORTH data, for works of state & national high ways only)	each	<b>9.00</b>	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 Materials 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		<b>deleted</b>
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		<b>deleted</b>
173		Binding Wire	1 Kg	<b>55.00</b>	As per WR Dept. (M 072 of Materials other

<b>RATES OF MATERIALS &amp; WORK ITEMS SSI No.</b>	<b>S.S. Item No.</b>	<b>Description</b>	<b>Unit (per)</b>	<b>S o Rate for 2019-20 in Rs.</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
					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	80.00	As per WR Dept. (M 189-b of Materials other than covered under Irrigation Items)

# **HIRE CHARGES OF PLANT AND MACHINERY**

**HIRE CHARGES OF PLANT& MACHNIERY FOR  
ROAD & BRIDGE WORKS FOR THE YEAR 2019-20**

Sl. No.	Description		Unit	S o Rate for 2019-20 in Rs.	Remarks
	Machine	Activity			
1	2	3	4	5	6
1	Dozer( D 80 )	Spreading	Per Hour	2445.70	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	2761.20	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	941.60	As per WR Dept. (S.No.54)
7	Vibratory roller 8 tonne	Earth/Soil, GSB,	Per Hour	2688.50	As per WR Dept. (S.No.62)
		WMM			
8	Smooth wheeled roller 8 tonne	Soil compaction ,BM compaction	Per Hour	1285.40	As per WR dept. (S.No.50)
9	Water tanker 8 Kilolitre	Water transport	Per Hour	937.00	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	566.20	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	

Sl. No.	Description		Unit	S o Rate for 2019-20 in Rs.	Remarks
	Machine	Activity			
1	2	3	4	5	6
19	Hot mix Plant – 120 TPH capacity	DBM/BM/SDC /Premix	Per Hour	28708.00	
20	Hot mix Plant – 100 TPH capacity	DBM/BM/SDC /Premix	Per Hour	24636.00	
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	1107.10	As per WR Dept. (S.No.10)
33	Transit mixer	Transportation of concrete mix	Per Hour	2026.60	As per WR Dept. (S.No.1)
34	Concrete pump of 45 and 30 cum	Pumping of Concrete	Per Hour	1534.30	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	13.20	As per WR Dept. (S.No.14)
37	Kerb casting	Kerb making	Per Hour	671.90	

Sl. No.	Description		Unit	S o Rate for 2019-20 in Rs.	Remarks
	Machine	Activity			
1	2	3	4	5	6
	machine				
38	Concrete mixer	Concrete mixing	Per Hour	524.70	As per WR Dept. (S.No.18)
	(a)0.28 cum				
	(b) 1.0 cum	Concrete mixing	Per Hour	661.50	
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	987.70	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	914.50	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	879.70	As per WR Dept. (S.No.22)
<b>Note:</b> The above hire charges of Machinery & Plant includes crew, oils, conveyance of Machinery to site and all other incidental charges					

For Engineer-in-Chief (R&B)  
Administration, NH & CRF

PUBLIC HEALTH ITEMS			
Sl. No.	Description	Unit	SoR for 2019-20
1	2	3	4
1	RATES OF LABOUR (SKILLED WORKMEN)		
	1. Caulker	Per Day	As per Labor 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 2019-20
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	<b>624</b>
	900	Per Meter	<b>811</b>
	1000	Per Meter	<b>1054</b>
	1100	Per Meter	<b>1298</b>
	1200	Per Meter	<b>1543</b>
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	<b>16304</b>
	1000	Each Joint	<b>18215</b>
	1100	Each Joint	<b>20123</b>
	1200	Each Joint	<b>22033</b>
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	<b>6836</b>
	900	Each Joint	<b>8040</b>
	1000	Each Joint	<b>9259</b>
	1100	Each Joint	<b>10508</b>
	1200	Each Joint	<b>11802</b>
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	<b>24</b>
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		<b>377</b>
	800		<b>453</b>
	900		<b>543</b>
	1000		<b>651</b>
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 as per AP. Standard data
	15mm to 150mm	Per Meter	

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	<b>38</b>
	40	Per Meter	<b>38</b>
	32	Per Meter	<b>38</b>
	25	Per Meter	<b>35</b>
	20	Per Meter	<b>33</b>
	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.		
<b>13</b>	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		<b>To follow as per AP. Standard data</b>
	100mm to 450mm	Per Meter	
<b>14</b>	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	<b>To follow as per AP. Standard data</b>
	63 to 315mm		
<b>15</b>	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.		<b>To follow as per AP. Standard data</b>
	400		
	450		<b>296</b>
<b>16</b>	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>		<b>To follow as per AP. Standard data</b>
	80mm to 600mm	Each	
17	Labor charges for fixing <u>Air valves</u> including boring the mains and threading the bore fixing nipple etc., complete.		
	Dia. of Air valve in mm.		
	25	Each	To follow as per A.P. Standard data
	40	Each	
	50	Each	<b>195</b>
	65	Each	<b>207</b>
	80	Each	<b>224</b>
	100	Each	<b>266</b>
	125	Each	<b>414</b>
	150	Each	<b>453</b>
18	Labor 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.		
	Dia. of Air valve in mm.		
	25	Each	<b>184</b>
	40	Each	<b>208</b>
	50(Double Air valves)	Each	<b>221</b>
	65	Each	<b>237</b>
	80	Each	<b>259</b>
	100	Each	<b>301</b>
	125	Each	<b>471</b>
	150	Each	<b>516</b>
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	<b>To follow as per AP. Standard data</b>
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	<b>To follow</b>

			<b>as per AP. Standard data</b>
<b>21</b>	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	<b>To follow as per AP. Standard data</b>
<b>22</b>	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	<b>572</b>
	700	Each cut	<b>587</b>
	750	Each cut	<b>633</b>
	800	Each cut	<b>673</b>
	900	Each cut	<b>756</b>
	1000	Each cut	<b>840</b>
	1100	Each cut	<b>926</b>
	1200	Each cut	<b>1010</b>
<b>23</b>	Cutting A.C. Pipes without water in mains Dia. of pipes in mm.		
	Dia. of Pipes in mm		
	80	Each cut	<b>37</b>
	100	Each cut	<b>37</b>
	125	Each cut	<b>37</b>
	150	Each cut	<b>37</b>
	200	Each cut	<b>39</b>
	250	Each cut	<b>64</b>
	300	Each cut	<b>64</b>
	350	Each cut	<b>79</b>
	400	Each cut	<b>87</b>
	450	Each cut	<b>108</b>
	500	Each cut	<b>120</b>
	600	Each cut	<b>132</b>
<b>24</b>	Drilling and tapping CI/ DI / GI Main and fixing brass screw down ferrule and plug.		
	10 mm to 20mm	Each Tapping	<b>To follow as per AP. Standard</b>
	25 mm to 40mm	Each Tapping	

			<b>data</b>
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	<b>794</b>
	b) Cutting open C.C. road surface with concrete saw cutter and removal with Breaker	1 Cum	<b>2424</b>
	c) Cutting open water bound macadam road including soiling	1 Cum	<b>270</b>
26	<b>Bailing out water.(For PH item)</b>		
	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 up to 5HP capacity pumps.	HP/Hour	<b>To adopt the rate arrived for 5HP capacity pump based on the WR department data.</b>
	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 up to 5HP capacity pumps.	HP/Hour	<b>To adopt the rate arrived for 5HP capacity pump based on the WR department data.</b>
	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/-	<b>Per hphr</b>
	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/-	<b>Per hr</b>
	Total hire charges of Electrically driven dewatering pump per hour	= (10.24xhp capacity) +166.78	<b>Per hr</b>
	B. Water lifting charges using Diesel driven pump		
	i. per hphr rate(including contractors profit and overhead charges of 13.615%)	Rs.25.51/-	<b>Per hphr</b>
	ii. Other expenses in terms of Mazdoor, pump operator and pipe laying and dismantling(including contractors	Rs.201.55/-	<b>Per hr</b>

	profit and overhead charges of 13.615%) per hr		
	Total hire charges of Diesel driven dewatering pump per hour	= (25.51xhp capacity) +201.55	<b>Per hr</b>
	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	<b>To follow as per AP. Standard data</b>
	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	<b>13223</b>
	b) 1 to 2 m deep under water.	10 Cum	<b>18941</b>
	c) 2 to 5 m deep under water.	10 Cum	<b>28429</b>
	d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	10 Cum	<b>5431</b>
	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	<b>41.20</b>
	Per every 25 mm dia.		
31	Centering and scaffolding charges for RCC members including all materials and labor charges for forming and dismantling.		
a)	for RCC 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)		<b>4028</b>
	2) Slabs for thickness above 300 mm		<b>extra for every 50mm thickness increase Rs.473/-</b>
	3) Side walls curved surfaces. (rate is for both sides		<b>3044</b>

	centering)		
	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%		
	<b>Note: The Centering charges for item No's.3 &amp; 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>		
b)	For Ground level works :-		
	1) Slabs	1 Sqm	<b>To follow as per AP. Standard data</b>
	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
	<b>Note: The Centering charges for item No's 4 &amp; 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.</b>		
32	Lift or delift of materials :		
	a) Lifting of cement concrete for RCC elevated reservoir. For every <b>1m</b> height or part thereof over the initial lift of <b>3 m</b>	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,		100% extra

	replacement of valves/specials etc., including the cutting, jointing, bailing out of water, drying, earth work excavation etc., complete.		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	<b>2734</b>
41	Well sinking in sandy and other loose soils under water either by manual labor, 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	<b>19.11</b>
b	1000 Kilo liters	Per liter	<b>15.88</b>
c	1500 Kilo liters	Per liter	<b>14.31</b>
d	2000 Kilo liters	Per liter	<b>12.46</b>
e	2500 Kilo liters	Per liter	<b>11.68</b>
	1) The above rates are arrived with base rate of Cement Rs.3900/- per MT & Steel Rs 43500/- per MT (Bo CE rates for the month of March 2019.)		
	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 <b><u>SBC of 15 T/Sqm.</u></b>		
	a) For every decrease of 2.50 T/Sqm of SBC, the rate shall be increased by <b><u>2.50% on basic rate.</u></b>		
	b) For every increase of 2.5 T/Sqm of SBC, the rate shall be decreased by <b><u>1.0% on basic rate up to 20 T/Sqm</u></b>		
	c) For SBC below 10T/Sqm , solid raft shall be provided and for solid raft the rate shall be increased by <b><u>10% on basic rate.</u></b>		
	d) For SBC value of less than 5 T/Sqm, soil improvement shall be adopted, for which additional payment shall be made as per field condition.		
	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 {(Rc-3900)/3900 } x 0.07 Rc = 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 { (Rs-43500)/43500} x 0.2 Rs = 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) <b>The basic rate is inclusive of following <u>Fixtures</u></b>
	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 Kl 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 Kl 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 - 500mm dia. Scour Pipe - 200mm dia. <b>Note: Any deviation from the above sizes as per design, shall be paid or recovered.</b>
	(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 <sup>st</sup> 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) Lightning Arrestor with all its accessories complete including earthing, with relevant IS Codes - 1 No.
	xiii) <b>Compound wall:</b> 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>		
	xiv) <b>Staff Quarter</b> 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.		
	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.		
<b>44</b>	<b>Rates for OHSRs/ELSRs including fixtures with a staging of 10 m without Seismic analysis.</b>		<b>Rs/liter</b>
a	Up to 10,000 Liters capacity	Per liter	<b>58.91</b>
b	15,000 Liters capacity	Per liter	<b>44.00</b>
c	20,000 Liters capacity	Per liter	<b>39.80</b>
d	40,000 Liters capacity	Per liter	<b>33.74</b>
e	60,000 Liters capacity	Per liter	<b>25.57</b>
f	1,00,000 Liters capacity	Per liter	<b>23.59</b>
g	2,00,000 Liters capacity	Per liter	<b>20.62</b>
h	3,00,000 Liters capacity	Per liter	<b>19.40</b>
i	4,00,000 Liters capacity	Per liter	<b>17.09</b>
j	4,50,000 Liters capacity	Per liter	<b>14.77</b>
	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.3900/- per tonne for cement and Rs.43500/- 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 Basic Rate $\times \{(Rc-3900)/3900\} \times 0.07$ Rc = Rate of cement (Rs per Mt) at the time of preparation of estimate.
	6)The above rates shall be increased / decreased due to increase / decrease in the cost of steel by Basic Rate $\times \{(Rs-43500)/43500\} \times 0.2$ Rs = Rate of steel (Rs per Mt) at the time of preparation of estimate.
	7) Rate inclusive of three coats of epoxy paint Food Grade of best quality to inner surface of the Reservoir including roof.
	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.
	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.
	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.
	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.
	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 %.
	13) The rate is arrived with the Cement & Steel rates of Rs 3900/MT and 43500/- approved by the BoCE for the month of March 2019.
	<b>13) Fixtures include :</b>
	a) RCC or Aluminum 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) Lightening arrestor, including conductor and earthling 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	<b>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 &amp; consumables etc., complete.</b>		
	1) 2.0 MLD	Per liter	<b>4.64</b>
	2) 5.0 MLD	Per liter	<b>3.78</b>
	3) 10.0 MLD	Per liter	<b>3.41</b>
	4) 20.0 MLD	Per liter	<b>2.74</b>
	5) 30.00 MLD and above	Per liter	<b>2.38</b>
	NOTE :-		
	a) For Intermediate Capacities proportional rates may be adopted		
	b) The above rates are applicable with Cement @ rate of Rs.3900/-MT and Steel of Rs. 43500/MT.		
	c) The above rates shall be increased / decreased due to increase / decrease in the cost of cement by Basic Rate x {(Rc-3900)/3900 } 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-43500)/43500} 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 3900/MT and 43500/- approved by the BoCE for the month of March 2019.
	The above rates of Filtration Plants shall include all the following components.
	<b>A) Civil Works</b> (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/Aluminum / 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/ Aluminum/ 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 (Clariflocculator, 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 and pipe gallery shall be minimum 0.3m 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) <b><u>Chlorinator</u></b> : Vacuum type chlorinator shall be provided with following specifications: a) Vacuum operated solution feeding type Vacuum Regulator, Rotameter, 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.

	<p>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.</p> <p>g) Life breathing apparatus.</p> <p>h) Chlorine escape BA set</p>
	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>B) Mechanical Equipment</b>
	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.
	<b>C) Electrical Equipment</b>
	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 / Aluminum cheque plate.
	6) Min LUX levels inside the treatment plant shall be maintained.
	7) Yard lighting shall be provided as per norms.
	<b>D ) Equipment for Flow measurements</b>
	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.
	<b>Hardware:</b>
	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.
	<b>Software:</b>
	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 2019-20		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Meter	132		
	100 mm dia.	Meter	153		
	150 mm dia.	Meter	181		
	200 mm dia.	Meter	215		
	225 mm dia.	Meter	233		
	250 mm dia.	Meter	246		
	300 mm dia.	Meter	355	844	860
	350 mm dia.	Meter	442	993	1013
	400 mm dia.	Meter	511	1093	1120
	450 mm dia.	Meter	626	1258	1273
	500 mm dia.	Meter	684	1361	1579
	600 mm dia.	Meter	1013	2068	2463
	700 mm dia.	Meter	1293	2573	3318

	800 mm dia.	Meter	<b>1592</b>	<b>3405</b>	<b>4325</b>
	900 mm dia.	Meter	<b>2019</b>	<b>4284</b>	<b>5405</b>
	1000 mm dia.	Meter	<b>2472</b>	<b>5227</b>	<b>7420</b>
	1100 mm dia.	Meter	<b>2896</b>	<b>6299</b>	<b>8609</b>
	1200 mm dia.	Meter	<b>3454</b>	<b>7427</b>	<b>10071</b>
	1400 mm dia.	Meter	<b>4739</b>	<b>9570</b>	<b>13917</b>
	1600 mm dia.	Meter	<b>5454</b>	<b>12453</b>	<b>16620</b>
	1800 mm dia.	Meter	<b>7182</b>	<b>16557</b>	<b>22329</b>

Note : All prices are ex-works.

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

Cost Cement. Rs.3900/- per MT (Excluding all taxes and freight).

Steel (M.S. Rods) - Rs.45000/- 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 =  $(S2 - S1) / 1000 \times Ws$ .

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

S1 = Rs. 45000/- , S2 = Cost of M S Rods (Rs. per MT Excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs.3900/- 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.

## 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 2019-20		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Each	<b>41</b>		
	100 mm dia.	Each	<b>42</b>		
	150 mm dia.	Each	<b>42</b>		
	200 mm dia.	Each	<b>59</b>		
	225 mm dia.	Each	<b>63</b>		
	250 mm dia.	Each	<b>69</b>		
	300 mm dia.	Each	<b>90</b>	<b>128</b>	<b>128</b>
	350 mm dia.	Each	<b>112</b>	<b>162</b>	<b>162</b>
	400 mm dia.	Each	<b>124</b>	<b>185</b>	<b>185</b>
	450 mm dia.	Each	<b>195</b>	<b>247</b>	<b>247</b>
	500 mm dia.	Each	<b>221</b>	<b>294</b>	<b>294</b>
	600 mm dia.	Each	<b>301</b>	<b>385</b>	<b>385</b>
	700 mm dia.	Each	<b>392</b>	<b>517</b>	<b>517</b>

	800 mm dia.	Each	<b>554</b>	<b>661</b>	<b>661</b>
	900 mm dia.	Each	<b>663</b>	<b>770</b>	<b>770</b>
	1000 mm dia.	Each	<b>774</b>	<b>961</b>	<b>961</b>
	1100 mm dia.	Each	<b>946</b>	<b>1221</b>	<b>1221</b>
	1200 mm dia.	Each	<b>1150</b>	<b>1528</b>	<b>1528</b>
	1400 mm dia.	Each	<b>1481</b>	<b>1936</b>	<b>1936</b>
	1600 mm dia.	Each	<b>1896</b>	<b>2479</b>	<b>2479</b>
	1800 mm dia.	Each	<b>1922</b>	<b>3193</b>	<b>3193</b>

The above rates of RCC Collars suitable to plain ended pipes are based on the following raw materials cost. Cement. Rs.3900/- per MT(Excluding all taxes and freight).

Steel (M.S. Rods) - Rs.45000/- per MT.(Excluding all taxes and freight).

The revised cost of RCC collars 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 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 the cost of Cement = (C2-C1)/1000 X Wc.

S1 = Rs. 45000/- , S2 = Cost of M S Rods (Rs. per MT excluding all taxes and freight) at the

time of preparation of estimate.

C1 = Rs.3900/-,

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 2019-20		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia.	Meter	166		
	100 mm dia.	Meter	188		
	150 mm dia.	Meter	218		
	200 mm dia.	Meter	267		
	225 mm dia.	Meter	289		
	250 mm dia.	Meter	308		
	300 mm dia.	Meter	433	1087	1153
	350 mm dia.	Meter	557	1332	1355
	400 mm dia.	Meter	613	1477	1501
	450 mm dia.	Meter	765	1629	1640
	500 mm dia.	Meter	883	1865	2031
	600 mm dia.	Meter	1235	2619	2663
	700 mm dia.	Meter	1601	3358	3473
	800 mm dia.	Meter	2066	4452	4526
	900 mm dia.	Meter	2627	5605	5718
	1000 mm dia.	Meter	3210	6282	5739
	1100 mm dia.	Meter	3720	7432	7792
	1200 mm dia.	Meter	4197	8783	9129
	1400 mm dia.	Meter	6040	11632	12974
	1600 mm dia.	Meter	7478	15146	15505
	1800 mm dia.	Meter	8304	20137	20857

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.3900/- per MT,(Excluding all taxes and freight).

Steel (M.S. Rods) – Rs.45000/- 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 =  $(S2 - S1) / 1000 \times Ws$ .

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

S1 = Rs. 45000/- , S2 = Cost of M S Rods (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3900/- , 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 2019-20		
			P1 - Class	P2 - Class	P3 - Class
	80 mm dia.	Meter	222	249	285
	100 mm dia.	Meter	248	299	346
	150 mm dia.	Meter	343	445	551
	200 mm dia.	Meter	397	573	757
	225 mm dia.	Meter	447	651	842
	250 mm dia.	Meter	490	693	879
	300 mm dia.	Meter	657	993	1236
	350 mm dia.	Meter	818	1387	1789
	400 mm dia.	Meter	973	1842	2372
	450 mm dia.	Meter	1029	2186	2907
	500 mm dia.	Meter	1386	2359	3293
	600 mm dia.	Meter	1898	3524	4556
	700 mm dia.	Meter	2540	4635	5762
	800 mm dia.	Meter	3175	5474	6937
	900 mm dia.	Meter	3823	6412	
	1000 mm dia.	Meter	4864	7328	
	1100 mm dia.	Meter	5851		
	1200 mm dia.	Meter	6821		

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.3900/- per MT,(Excluding all taxes and freight).

Steel (M.S. Rods) - Rs.45000/- 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. 45000/-

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

C1 = Rs. 3900/-, 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 2019-20		
			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 2019-20				
		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 up to 5 Kms Lead including Loading, unloading & 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. 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 BIS No: 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 2019-20			
				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	984	1249
	250 mm dia.	Rate/Meter		978	1265	1583
	300 mm dia.	Rate/Meter		1368	1778	2270
	350 mm dia.	Rate/Meter		1667	2166	2729
	400 mm dia.	Rate/Meter		2168	2832	3516
	450 mm dia.	Rate/Meter		2568	3407	4266
	500 mm dia.	Rate/Meter		3175	4168	5235
	600 mm dia.	Rate/Meter		4512	5889	7505
	700 mm dia.	Rate/Meter		5983	8115	10493
	750 mm dia.	Rate/Meter		6817	9367	12008
	800 mm dia.	Rate/Meter		7802	10613	13621
	850 mm dia.	Rate/Meter		8750	11941	15338
	900 mm dia.	Rate/Meter		9755	13338	17157
	1000 mm dia.	Rate/Meter		12042	16377	21098
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 up to 500 mts and testing to required pressure including all sundries but excluding cost of jointing materials and conveyance from source of supply as per BIS No. 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 3900/- 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 &amp; 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><math>W \times 0.85 \times IC</math> Where <math>W</math> = Weight of pipe in Kg's/Rmt</p> <p><math>IC</math> = 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><math>W \times 0.15 \times IF</math> Where : <math>W</math> = Weight of pipe in Kg's/Rmt</p> <p><math>IF</math> = 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 IS Code.					
	Size	Unit	SoR For 2019-20			
				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	1658
	450 mm dia.	Rate/Each		1185	1565	2010
	500 mm dia.	Rate/Each		1415	1893	2418
	600 mm dia.	Rate/Each		1729	2167	2770
	700 mm dia.	Rate/Each		2290	3082	4008
	750 mm dia.	Rate/Each		2583	3531	4559
	800 mm dia.	Rate/Each		2930	3973	5142
	850 mm dia.	Rate/Each		3265	4445	5763
	900 mm dia.	Rate/Each		3612	4941	6414
	1000 mm dia.	Rate/Each		4409	6007	7829

1. The above rates of AC Coupling are based on the Cement cost of RS 3900/- 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 & Freight)

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 2019-20			
				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 2019-20

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 2019-20.					
			6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
	350 MM DIA.	Meter	2980	2990	3002	3018	3078	3186
	400 MM DIA.	Meter	3202	3226	3260	3303	3364	3414
	450 MM DIA.	Meter	3404	3420	3459	3526	3616	3695
	500 MM DIA.	Meter	3685	3700	3730	3809	3889	4003
	600 MM DIA.	Meter	4234	4264	4309	4441	4583	4724
	700 MM DIA.	Meter	4964	5034	5153	5299	5453	5666
	800 MM DIA.	Meter	6022	6156	6299	6490	6686	6996
	900 MM DIA.	Meter	6909	7087	7273	7583	7825	8392
	1000 MM DIA.	Meter	8144	8377	8620	8865	9163	9817
	1100 MM DIA.	Meter	9129	9396	9694	9992	10306	11111
	1200 MM DIA.	Meter	10260	10613	10946	11184	11639	12800
	1300 MM DIA.	Meter	11627	12025	12423	12823	13974	14478
	1400 MM DIA.	Meter	13458	13924	14400	15187	16150	16861
	1500 MM DIA.	Meter	15196	15749	16269	17660	18296	20438
	1600 MM DIA.	Meter	17102	17699	18299	19966	20686	22760
	1700 MM DIA.	Meter	18351	19046	19731	21485	23804	24876
	1800 MM DIA.	Meter	20291	21586	22761	24681	25595	28342
	1900 MM DIA.	Meter	21678	22871	24883	26311	28602	30800
	2000 MM DIA.	Meter	23830	25316	26644	29073	32087	33353
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	252	252	252	252	252	252

	400 MM DIA.	Meter	<b>272</b>	<b>272</b>	<b>272</b>	<b>272</b>	<b>272</b>	<b>272</b>
	450 MM DIA.	Meter	<b>314</b>	<b>314</b>	<b>314</b>	<b>314</b>	<b>314</b>	<b>314</b>
	500 MM DIA.	Meter	<b>334</b>	<b>334</b>	<b>334</b>	<b>334</b>	<b>334</b>	<b>334</b>
	600 MM DIA.	Meter	<b>411</b>	<b>411</b>	<b>411</b>	<b>411</b>	<b>411</b>	<b>411</b>
	700 MM DIA.	Meter	<b>481</b>	<b>481</b>	<b>481</b>	<b>481</b>	<b>481</b>	<b>481</b>
	800 MM DIA.	Meter	<b>545</b>	<b>545</b>	<b>545</b>	<b>545</b>	<b>545</b>	<b>545</b>
	900 MM DIA.	Meter	<b>596</b>	<b>596</b>	<b>596</b>	<b>596</b>	<b>596</b>	<b>596</b>
	1000 MM IA	Meter	<b>689</b>	<b>689</b>	<b>689</b>	<b>689</b>	<b>689</b>	<b>689</b>
	1100 MM IA	Meter	<b>774</b>	<b>774</b>	<b>774</b>	<b>774</b>	<b>774</b>	<b>774</b>
	1200 MMDIA.	Meter	<b>857</b>	<b>857</b>	<b>857</b>	<b>857</b>	<b>857</b>	<b>857</b>
	1300 MM DIA.	Meter	<b>972</b>	<b>972</b>	<b>972</b>	<b>972</b>	<b>972</b>	<b>972</b>
	1400 MM DIA.	Meter	<b>1100</b>	<b>1100</b>	<b>1100</b>	<b>1100</b>	<b>1100</b>	<b>1100</b>
	1500 MM DIA.	Meter	<b>1193</b>	<b>1193</b>	<b>1193</b>	<b>1193</b>	<b>1193</b>	<b>1193</b>
	1600 MM DIA.	Meter	<b>1337</b>	<b>1337</b>	<b>1337</b>	<b>1337</b>	<b>1337</b>	<b>1337</b>
	1700 MM DIA.	Meter	<b>1455</b>	<b>1455</b>	<b>1455</b>	<b>1455</b>	<b>1455</b>	<b>1455</b>
	1800 MM DIA.	Meter	<b>1539</b>	<b>1539</b>	<b>1539</b>	<b>1539</b>	<b>1539</b>	<b>1539</b>
	1900 MM DIA.	Meter	<b>1625</b>	<b>1625</b>	<b>1625</b>	<b>1625</b>	<b>1625</b>	<b>1625</b>
	2000 MM DIA.	Meter	<b>1712</b>	<b>1712</b>	<b>1712</b>	<b>1712</b>	<b>1712</b>	<b>1712</b>
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	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>
	400 MM DIA.	Per K.M/M	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>	<b>1.67</b>
	450 MM DIA.	Per K.M/M	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>
	500 MM DIA.	Per K.M/M	<b>2.14</b>	<b>2.14</b>	<b>2.14</b>	<b>2.14</b>	<b>2.14</b>	<b>2.14</b>
	600 MM DIA.	Per K.M/M	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>
	700 MM DIA.	Per K.M/M	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>
	800 MM DIA.	Per K.M/M	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>
	900 MM DIA.	Per K.M/M	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>	<b>3.94</b>

	1000 MM DIA.	Per K.M/M	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>
	1100 MM DIA.	Per K.M/M	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>	<b>6.33</b>
	1200 MM DIA.	Per K.M/M	<b>12.04</b>	<b>12.04</b>	<b>12.04</b>	<b>12.04</b>	<b>12.04</b>	<b>12.04</b>
	1300 MM DIA.	Per K.M/M	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>
	1400 MM DIA.	Per K.M/M	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>
	1500 MM DIA.	Per K.M/M	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>	<b>12.17</b>
	1600 MM DIA.	Per K.M/M	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>
	1700 MM DIA.	Per K.M/M	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>
	1800 MM DIA.	Per K.M/M	<b>13.95</b>	<b>13.95</b>	<b>13.95</b>	<b>13.95</b>	<b>13.95</b>	<b>13.95</b>
	1900 MM DIA.	Per K.M/M	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>
	2000 MM DIA.	Per K.M/M	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>	<b>14.54</b>
<b>4</b>	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	<b>10736</b>	<b>10736</b>	<b>10736</b>	<b>10736</b>	<b>10736</b>	<b>10736</b>
	400 MM DIA.	Per Pair	<b>12316</b>	<b>12316</b>	<b>12316</b>	<b>12316</b>	<b>12316</b>	<b>12316</b>
	450 MM DIA.	Per Pair	<b>13901</b>	<b>13901</b>	<b>13901</b>	<b>13901</b>	<b>13901</b>	<b>13901</b>
	500 MM DIA.	Per Pair	<b>15498</b>	<b>15498</b>	<b>15498</b>	<b>15498</b>	<b>15498</b>	<b>15498</b>
	600 MM DIA.	Per Pair	<b>18443</b>	<b>18443</b>	<b>18443</b>	<b>18443</b>	<b>18443</b>	<b>18443</b>
	700 MM DIA.	Per Pair	<b>21620</b>	<b>21620</b>	<b>21620</b>	<b>21620</b>	<b>21620</b>	<b>21620</b>
	800 MM DIA.	Per Pair	<b>24716</b>	<b>24716</b>	<b>24716</b>	<b>24716</b>	<b>24716</b>	<b>24716</b>
	900 MM DIA.	Per Pair	<b>28056</b>	<b>28056</b>	<b>28056</b>	<b>28056</b>	<b>28056</b>	<b>28056</b>
	1000 MM DIA.	Per Pair	<b>30415</b>	<b>30415</b>	<b>30415</b>	<b>30415</b>	<b>30415</b>	<b>30415</b>
	1100 MM DIA.	Per Pair	<b>33596</b>	<b>33596</b>	<b>33596</b>	<b>33596</b>	<b>33596</b>	<b>33596</b>
	1200 MM DIA.	Per Pair	<b>36634</b>	<b>36634</b>	<b>36634</b>	<b>36634</b>	<b>36634</b>	<b>36634</b>

	1300 MM DIA.	Per Pair	<b>39640</b>	<b>39640</b>	<b>39640</b>	<b>39640</b>	<b>39640</b>	<b>39640</b>
	1400 MM DIA.	Per Pair	<b>47100</b>	<b>47100</b>	<b>47100</b>	<b>47100</b>	<b>47100</b>	<b>47100</b>
	1500 MM DIA.	Per Pair	<b>55609</b>	<b>55609</b>	<b>55609</b>	<b>55609</b>	<b>55609</b>	<b>55609</b>
	1600 MM DIA.	Per Pair	<b>62152</b>	<b>62152</b>	<b>62152</b>	<b>62152</b>	<b>62152</b>	<b>62152</b>
	1700 MM DIA.	Per Pair	<b>69981</b>	<b>69981</b>	<b>69981</b>	<b>69981</b>	<b>69981</b>	<b>69981</b>
	1800 MM DIA.	Per Pair	<b>80265</b>	<b>80265</b>	<b>80265</b>	<b>80265</b>	<b>80265</b>	<b>80265</b>
	1900 MM DIA.	Per Pair	<b>93119</b>	<b>93119</b>	<b>93119</b>	<b>93119</b>	<b>93119</b>	<b>93119</b>
	2000 MM DIA.	Per Pair	<b>109057</b>	<b>109057</b>	<b>109057</b>	<b>109057</b>	<b>109057</b>	<b>109057</b>
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.							
	Diameter and thickness	Unit	Rate	Diameter and thickness	Unit	Rate		
	80 mm dia. x 15 mm thick	Each Flange	<b>769</b>	500mm dia. x 20 mm thick	Each Flange	<b>7877</b>		
	100 mm dia. x 15 mm thick	Each Flange	<b>1060</b>	600 mm dia. x 20 mm thick	Each Flange	<b>9916</b>		
	125 mm dia. x 15 mm thick	Each Flange	<b>1274</b>	700 mm dia. x 25 mm thick	Each Flange	<b>13996</b>		
	150 mm dia. x 15 mm thick	Each Flange	<b>1699</b>	750 mm dia. x 25 mm thick	Each Flange	<b>15393</b>		
	200 mm dia. x 15 mm thick	Each Flange	<b>2121</b>	800 mm dia. x 25 mm thick	Each Flange	<b>17239</b>		
	250 mm dia. x 15 mm thick	Each Flange	<b>2763</b>	900 mm dia. x 25 mm thick	Each Flange	<b>19797</b>		
	300 mm dia. x 15 mm thick	Each Flange	<b>3144</b>	1000 mm dia. x 25 mm thick	Each Flange	<b>23329</b>		
	350 mm dia. x 18 mm thick	Each Flange	<b>4558</b>	1050 mm dia. x 25 mm thick	Each Flange	<b>24780</b>		
	400 mm dia. x 18 mm thick	Each Flange	<b>5695</b>	1100 mm dia. x 25 mm thick	Each Flange	<b>26724</b>		
	450 mm dia. x 18 mm thick	Each Flange	<b>6622</b>	1200 mm dia. x 32 mm thick	Each Flange	<b>35402</b>		

Note: a) The above rate of PSC pipes are based on the HT wire cost of Rs.56,500/-MT (Excluding all taxes and freight).and cement price of Rs3900/- 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 =  $(H2 - H1) / 1000 \times Wh$ .

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

H1 = Rs. 56,500/- H2 = Cost of HT Wire (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3900/- 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.

The rates for MS flanges are considering landed price of MS Plates of Rs.47000/- 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 2019-20

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 2019-20								
			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	5333	5333	5333	5333	5359	5414	5507	5596	5664
	450 MM DIA.	Meter	5797	5797	5797	5823	5890	5971	6070	6113	6167
	500 MM DIA.	Meter	6186	6186	6246	6300	6353	6426	6510	6575	6639
	600 MM DIA.	Meter	7110	7182	7257	7341	7416	7490	7617	7713	7800
	700 MM DIA.	Meter	8086	8181	8288	8384	8490	8586	8763	8873	9010
	800 MM DIA.	Meter	9516	9633	9761	9899	10028	10155	10345	10525	10677
	900 MM DIA.	Meter	10827	10996	11156	11326	11497	11666	12110	12334	12596
	1000 MM DIA.	Meter	13001	13203	13407	13619	13822	14034	14619	14916	15212
	1100 MM DIA.	Meter	14451	14696	14951	15197	15452	15697	16414	16743	17135
	1200 MM DIA.	Meter	16073	16371	16659	16957	17266	17563	18414	18836	19255
	1300 MM DIA.	Meter	17974	18325	18676	19028	19380	20039	20759	21273	21836
	1400 MM DIA.	Meter	20158	20593	21037	21522	22378	22947	23758	23997	24962
	1500 MM DIA.	Meter	23677	24210	24669	25138	26056	26579	27279	28339	28924
	1600 MM DIA.	Meter	26701	27419	28027	29009	29607	30265	31468	32129	32789
	1700 MM DIA.	Meter	28739	29525	30125	31245	31918	33327	34099	34854	35617
	1800 MM DIA.	Meter	31470	32343	34052	35112	36148	38093	39740	40586	41451
	1900 MM DIA.	Meter	36557	37313	38641	39459	41130	42066	43033	43982	44929
	2000 MM DIA.	Meter	38575	39960	40878	41808	43671	44703	45781	46830	47890
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	<b>520</b>	<b>520</b>	<b>520</b>	<b>520</b>	<b>520</b>	<b>520</b>	<b>520</b>	<b>520</b>	<b>520</b>
	450 MM DIA.	Meter	<b>611</b>	<b>611</b>	<b>611</b>	<b>611</b>	<b>611</b>	<b>611</b>	<b>611</b>	<b>611</b>	<b>611</b>
	500 MM DIA.	Meter	<b>666</b>	<b>666</b>	<b>666</b>	<b>666</b>	<b>666</b>	<b>666</b>	<b>666</b>	<b>666</b>	<b>666</b>
	600 MM DIA.	Meter	<b>779</b>	<b>779</b>	<b>779</b>	<b>779</b>	<b>779</b>	<b>779</b>	<b>779</b>	<b>779</b>	<b>779</b>
	700 MM DIA.	Meter	<b>887</b>	<b>887</b>	<b>887</b>	<b>887</b>	<b>887</b>	<b>887</b>	<b>887</b>	<b>887</b>	<b>887</b>
	800 MM DIA.	Meter	<b>1019</b>	<b>1019</b>	<b>1019</b>	<b>1019</b>	<b>1019</b>	<b>1019</b>	<b>1019</b>	<b>1019</b>	<b>1019</b>
	900 MM DIA.	Meter	<b>1149</b>	<b>1149</b>	<b>1149</b>	<b>1149</b>	<b>1149</b>	<b>1149</b>	<b>1149</b>	<b>1149</b>	<b>1149</b>
	1000 MM DIA.	Meter	<b>1258</b>	<b>1258</b>	<b>1258</b>	<b>1258</b>	<b>1258</b>	<b>1258</b>	<b>1258</b>	<b>1258</b>	<b>1258</b>
	1100 MM DIA.	Meter	<b>1427</b>	<b>1427</b>	<b>1427</b>	<b>1427</b>	<b>1427</b>	<b>1427</b>	<b>1427</b>	<b>1427</b>	<b>1427</b>
	1200 MM DIA.	Meter	<b>1556</b>	<b>1556</b>	<b>1556</b>	<b>1556</b>	<b>1556</b>	<b>1556</b>	<b>1556</b>	<b>1556</b>	<b>1556</b>
	1300 MM DIA.	Meter	<b>1666</b>	<b>1666</b>	<b>1666</b>	<b>1666</b>	<b>1666</b>	<b>1666</b>	<b>1666</b>	<b>1666</b>	<b>1666</b>
	1400 MM DIA.	Meter	<b>1833</b>	<b>1833</b>	<b>1833</b>	<b>1833</b>	<b>1833</b>	<b>1833</b>	<b>1833</b>	<b>1833</b>	<b>1833</b>
	1500 MM DIA.	Meter	<b>2035</b>	<b>2035</b>	<b>2035</b>	<b>2035</b>	<b>2035</b>	<b>2035</b>	<b>2035</b>	<b>2035</b>	<b>2035</b>
	1600 MM DIA.	Meter	<b>2203</b>	<b>2203</b>	<b>2203</b>	<b>2203</b>	<b>2203</b>	<b>2203</b>	<b>2203</b>	<b>2203</b>	<b>2203</b>
	1700 MM DIA.	Meter	<b>2481</b>	<b>2481</b>	<b>2481</b>	<b>2481</b>	<b>2481</b>	<b>2481</b>	<b>2481</b>	<b>2481</b>	<b>2481</b>
	1800 MM DIA.	Meter	<b>2630</b>	<b>2630</b>	<b>2630</b>	<b>2630</b>	<b>2630</b>	<b>2630</b>	<b>2630</b>	<b>2630</b>	<b>2630</b>
	1900 MM DIA.	Meter	<b>2869</b>	<b>2869</b>	<b>2869</b>	<b>2869</b>	<b>2869</b>	<b>2869</b>	<b>2869</b>	<b>2869</b>	<b>2869</b>
	2000 MM DIA.	Meter	<b>3054</b>	<b>3054</b>	<b>3054</b>	<b>3054</b>	<b>3054</b>	<b>3054</b>	<b>3054</b>	<b>3054</b>	<b>3054</b>
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	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>
	450 MM DIA.	Per KM/M	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>	<b>1.43</b>
	500 MM DIA.	Per KM/M	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>	<b>2.04</b>
	600 MM DIA.	Per KM/M	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>

	700 MM DIA.	Per KM/M	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>
	800 MM DIA.	Per KM/M	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>
	900 MM DIA.	Per KM/M	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>	<b>3.58</b>
	1000 MM DIA.	Per KM/M	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>
	1100 MM DIA.	Per KM/M	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>	<b>5.72</b>
	1200 MM DIA.	Per KM/M	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>
	1300 MM DIA.	Per KM/M	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>
	1400 MM DIA.	Per KM/M	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>
	1500 MM DIA.	Per KM/M	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>
	1600 MM DIA.	Per KM/M	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>	<b>11.33</b>
	1700 MM DIA.	Per KM/M	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>
	1800 MM DIA.	Per KM/M	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>
	1900 MM DIA.	Per KM/M	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>	<b>13.60</b>
	2000 MM DIA.	Per KM/M	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>

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

HT Wire: - Rs.56, 500/- (excluding all taxes & freight)

HR Coil (Hot Rolled): - Rs.49,375/- (excluding all taxes & freight)

Cement Cost Rs. 3900/-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. 56,500/- H2 = Cost of HT Wire (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

R1 = Rs. 49,375/- R2 = Cost of HR Coil (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.

C1 = Rs. 3900/- 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 2019-20**

Sl.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 <sup>2</sup>	14 Kg/cm <sup>2</sup>	16 Kg/cm <sup>2</sup>	18 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>	22 Kg/cm <sup>2</sup>	24 Kg/cm <sup>2</sup>	26 Kg/cm <sup>2</sup>	28 Kg/cm <sup>2</sup>	30 Kg/cm <sup>2</sup>
	250 MM DIA.	Meter	2623	2623	2623	2623	2623	2623	2906	3000	3035	3187
	300 MM DIA.	Meter	2923	2923	2923	2923	2923	3064	3472	3604	3679	3868
	350 MM DIA.	Meter	3552	3552	3552	3611	3787	3976	4152	4328	4516	4696
	400 MM DIA.	Meter	3913	3913	3995	4232	4454	4688	4910	5145	5373	5587
	450 MM DIA.	Meter	4386	4421	4726	5007	5312	5542	5813	6038	6291	6786
	500 MM DIA.	Meter	4755	5085	5437	5812	6143	6527	6855	7140	7612	8081
	600 MM DIA.	Meter	5885	6297	6814	7306	7834	8372	8966	9572	10151	10641
	700 MM DIA.	Meter	7148	7879	8549	9240	10016	10769	11473	12506	13153	13743
	800 MM DIA.	Meter	8584	9581	10461	11400	12484	13405	14594	15496	16376	17336
	900 MM DIA.	Meter	10380	11543	12635	13832	15018	16459	17608	18807	20167	21557
	1000 MM DIA.	Meter	12278	13732	15313	16769	18137	19511	20959	22594	24573	25933
	1100 MM DIA.	Meter	16157	16509	18128	19933	21681	23393	25593	27116	29223	31103
	1200 MM DIA.	Meter	17643	18875	20836	22886	24962	27075	29624	32121	34409	36329

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.											
	250 MM DIA.	Meter	354	354	354	354	354	354	354	354	354	354
	300 MM DIA.	Meter	417	417	417	417	417	417	417	417	417	417
	350 MM DIA.	Meter	492	492	492	492	492	492	492	492	492	492
	400 MM DIA.	Meter	551	551	551	551	551	551	551	551	551	551
	450 MM DIA.	Meter	551	551	551	551	551	551	551	551	551	551
	500 MM DIA.	Meter	690	690	690	690	690	690	690	690	690	690
	600 MM DIA.	Meter	849	849	849	849	849	849	849	849	849	849
	700 MM DIA.	Meter	989	989	989	989	989	989	989	989	989	989
	800 MM DIA.	Meter	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125
	900 MM DIA.	Meter	1322	1322	1322	1322	1322	1322	1322	1322	1322	1322
	1000 MM DIA.	Meter	1461	1461	1461	1461	1461	1461	1461	1461	1461	1461
	1100 MM DIA.	Meter	1717	1717	1717	1717	1717	1717	1717	1717	1717	1717
	1200 MM DIA.	Meter	1922	1922	1922	1922	1922	1922	1922	1922	1922	1922
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	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	300 MM DIA.	Per KM/ M	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75

Public Health Items											
	350 MM DIA.	Per KM/ M	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>
	400 MM DIA.	Per KM/ M	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>
	450 MM DIA.	Per KM/ M	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>
	500 MM DIA.	Per KM/ M	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>	<b>2.01</b>
	600 MM DIA.	Per KM/ M	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>	<b>2.13</b>
	700 MM DIA.	Per KM/ M	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>
	800 MM DIA.	Per KM/ M	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>	<b>3.14</b>
	900 MM DIA.	Per KM/ M	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>	<b>3.38</b>
	1000 MM DIA.	Per KM/ M	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>	<b>3.89</b>
	1100 MM DIA.	Per KM/ M	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>	<b>8.67</b>
	1200 MM DIA.	Per KM/ M	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>	<b>12.12</b>

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

HR coil - Rs.49,375/- per MT(Excluding all taxes and freight).

Wire rods - Rs.48,500/- per MT (Excluding all taxes and freight).

Cement Cost Rs. 3900/-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.

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

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

$R3 = \text{Variation (increase / decrease) in cost (Rs. per meter) due to change in the cost of Cement} = (C2-C1)/1000 \times W_c$   
 $H1 = \text{Rs. 49,375/-}$   $H2 = \text{Cost of HR Plate (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.}$   
 $W1 = \text{Rs. 48,500/-}$   $W2 = \text{Cost of Wire rods (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate.}$

$C1 = \text{Rs. 3900/-}$   $C2 = \text{Cost of Cement (Rs. per MT excluding all taxes and freight) at the time of preparation of estimate}$

$W_h = \text{Weight of HR Plate required (Kg.) per meter of pipe.}$

$W_c = \text{Weight of Cement required (Kg.) per Meter of pipe.}$

$W_w = \text{Weight of wire rods required (kg) per meter of pipe.}$

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 2019-20**

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	<b>9174</b>
	600 mm dia.	Meter	8.00	<b>10907</b>
	700 mm dia.	Meter	8.00	<b>12719</b>
	700 mm dia.	Meter	10.00	<b>15685</b>
	800 mm dia.	Meter	8.00	<b>14589</b>
	800 mm dia.	Meter	10.00	<b>16808</b>
	800 mm dia.	Meter	12.00	<b>19819</b>
	900 mm dia.	Meter	8.00	<b>16293</b>
	900 mm dia.	Meter	10.00	<b>18784</b>
	900 mm dia.	Meter	12.00	<b>21281</b>
	1000 mm dia.	Meter	8.00	<b>18275</b>
	1000 mm dia.	Meter	10.00	<b>21031</b>
	1000 mm dia.	Meter	12.00	<b>23706</b>
	1000 mm dia.	Meter	14.00	<b>27296</b>
	1100 mm dia.	Meter	8.00	<b>20982</b>
	1100 mm dia.	Meter	10.00	<b>24491</b>
	1100 mm dia.	Meter	12.00	<b>27526</b>
	1100 mm dia.	Meter	14.00	<b>31715</b>
	1100 mm dia.	Meter	16.00	<b>35919</b>
	1200 mm dia.	Meter	8.00	<b>23408</b>
	1200 mm dia.	Meter	10.00	<b>27485</b>
	1200 mm dia.	Meter	12.00	<b>30812</b>

	1200 mm dia.	Meter	14.00	<b>34136</b>
	1200 mm dia.	Meter	16.00	<b>38650</b>
	1200 mm dia.	Meter	18.00	<b>43176</b>
	1300 mm dia.	Meter	8.00	<b>25871</b>
	1300 mm dia.	Meter	10.00	<b>29660</b>
	1300 mm dia.	Meter	12.00	<b>33552</b>
	1300 mm dia.	Meter	14.00	<b>37141</b>
	1300 MM DIA.	Meter	16.00	<b>40745</b>
	1300 MM DIA.	Meter	18.00	<b>45503</b>
	1300 MM DIA.	Meter	20.00	<b>50276</b>
	1400 MM DIA.	Meter	8.00	<b>27792</b>
	1400 MM DIA.	Meter	10.00	<b>31860</b>
	1400 MM DIA.	Meter	12.00	<b>35794</b>
	1400 MM DIA.	Meter	14.00	<b>39657</b>
	1400 MM DIA.	Meter	16.00	<b>43528</b>
	1400 MM DIA.	Meter	18.00	<b>48604</b>
	1400 MM DIA.	Meter	20.00	<b>53692</b>
	1400 MM DIA.	Meter	22.00	<b>58794</b>
	1500 MM DIA.	Meter	8.00	<b>29724</b>
	1500 MM DIA.	Meter	10.00	<b>34076</b>
	1500 MM DIA.	Meter	12.00	<b>38315</b>
	1500 MM DIA.	Meter	14.00	<b>42444</b>
	1500 MM DIA.	Meter	16.00	<b>46588</b>
	1500 MM DIA.	Meter	18.00	<b>50735</b>
	1500 MM DIA.	Meter	20.00	<b>56032</b>
	1500 MM DIA.	Meter	22.00	<b>61343</b>
	1500 MM DIA.	Meter	24.00	<b>66666</b>
	1600 MM DIA.	Meter	8.00	<b>31694</b>
	1600 MM DIA.	Meter	10.00	<b>36167</b>
	1600 MM DIA.	Meter	12.00	<b>40556</b>
	1600 MM DIA.	Meter	14.00	<b>44958</b>
	1600 MM DIA.	Meter	16.00	<b>49369</b>
	1600 MM DIA.	Meter	18.00	<b>53790</b>

	1600 MM DIA.	Meter	20.00	<b>59397</b>
	1600 MM DIA.	Meter	22.00	<b>65020</b>
	1600 MM DIA.	Meter	24.00	<b>70655</b>
	1600 MM DIA.	Meter	26.00	<b>76302</b>
	1700 MM DIA.	Meter	8.00	<b>33543</b>
	1700 MM DIA.	Meter	10.00	<b>38415</b>
	1700 MM DIA.	Meter	12.00	<b>43074</b>
	1700 MM DIA.	Meter	14.00	<b>47747</b>
	1700 MM DIA.	Meter	16.00	<b>52424</b>
	1700 MM DIA.	Meter	18.00	<b>57117</b>
	1700 MM DIA.	Meter	20.00	<b>63067</b>
	1700 MM DIA.	Meter	22.00	<b>69035</b>
	1700 MM DIA.	Meter	24.00	<b>75009</b>
	1700 MM DIA.	Meter	26.00	<b>81005</b>
	1700 MM DIA.	Meter	28.00	<b>87009</b>
	1800 MM DIA.	Meter	8.00	<b>35539</b>
	1800 MM DIA.	Meter	10.00	<b>40664</b>
	1800 MM DIA.	Meter	12.00	<b>45593</b>
	1800 MM DIA.	Meter	14.00	<b>50537</b>
	1800 MM DIA.	Meter	16.00	<b>55482</b>
	1800 MM DIA.	Meter	18.00	<b>60447</b>
	1800 MM DIA.	Meter	20.00	<b>65419</b>
	1800 MM DIA.	Meter	22.00	<b>71592</b>
	1800 MM DIA.	Meter	24.00	<b>77780</b>
	1800 MM DIA.	Meter	26.00	<b>83978</b>
	1800 MM DIA.	Meter	28.00	<b>90192</b>
	1800 MM DIA.	Meter	30.00	<b>96417</b>
	1900 MM DIA.	Meter	8.00	<b>36417</b>
	1900 MM DIA.	Meter	10.00	<b>42637</b>
	1900 MM DIA.	Meter	12.00	<b>47832</b>
	1900 MM DIA.	Meter	14.00	<b>53043</b>
	1900 MM DIA.	Meter	16.00	<b>58264</b>
	1900 MM DIA.	Meter	18.00	<b>63499</b>
	1900 MM DIA.	Meter	20.00	<b>68737</b>

	1900 MM DIA.	Meter	22.00	<b>75218</b>
	1900 MM DIA.	Meter	24.00	<b>81712</b>
	1900 MM DIA.	Meter	26.00	<b>88221</b>
	1900 MM DIA.	Meter	28.00	<b>94741</b>
	1900 MM DIA.	Meter	30.00	<b>101277</b>
	1900 MM DIA.	Meter	32.00	<b>107821</b>
	2000 MM DIA.	Meter	8.00	<b>38111</b>
	2000 MM DIA.	Meter	10.00	<b>44612</b>
	2000 MM DIA.	Meter	12.00	<b>50078</b>
	2000 MM DIA.	Meter	14.00	<b>55559</b>
	2000 MM DIA.	Meter	16.00	<b>61050</b>
	2000 MM DIA.	Meter	18.00	<b>66553</b>
	2000 MM DIA.	Meter	20.00	<b>72060</b>
	2000 MM DIA.	Meter	22.00	<b>77542</b>
	2000 MM DIA.	Meter	24.00	<b>84223</b>
	2000 MM DIA.	Meter	26.00	<b>90916</b>
	2000 MM DIA.	Meter	28.00	<b>97625</b>
	2000 MM DIA.	Meter	30.00	<b>104343</b>
	2000 MM DIA.	Meter	32.00	<b>111076</b>
	2000 MM DIA.	Meter	34.00	<b>117820</b>
	2100 MM DIA.	Meter	8.00	<b>40033</b>
	2100 MM DIA.	Meter	10.00	<b>46859</b>
	2100 MM DIA.	Meter	12.00	<b>52597</b>
	2100 MM DIA.	Meter	14.00	<b>58333</b>
	2100 MM DIA.	Meter	16.00	<b>64105</b>
	2100 MM DIA.	Meter	18.00	<b>69876</b>
	2100 MM DIA.	Meter	20.00	<b>75657</b>
	2100 MM DIA.	Meter	22.00	<b>81453</b>
	2100 MM DIA.	Meter	24.00	<b>88469</b>
	2100 MM DIA.	Meter	26.00	<b>95496</b>
	2100 MM DIA.	Meter	28.00	<b>102537</b>
	2100 MM DIA.	Meter	30.00	<b>109590</b>
	2100 MM DIA.	Meter	32.00	<b>116657</b>
	2100 MM DIA.	Meter	34.00	<b>123737</b>
	2100 MM DIA.	Meter	36.00	<b>130826</b>

	2200 MM DIA.	Meter	8.00	<b>41723</b>
	2200 MM DIA.	Meter	10.00	<b>48833</b>
	2200 MM DIA.	Meter	12.00	<b>54844</b>
	2200 MM DIA.	Meter	14.00	<b>60859</b>
	2200 MM DIA.	Meter	16.00	<b>66891</b>
	2200 MM DIA.	Meter	18.00	<b>72927</b>
	2200 MM DIA.	Meter	20.00	<b>78981</b>
	2200 MM DIA.	Meter	22.00	<b>85047</b>
	2200 MM DIA.	Meter	26.00	<b>99698</b>
	2200 MM DIA.	Meter	28.00	<b>107042</b>
	2200 MM DIA.	Meter	30.00	<b>114397</b>
	2200 MM DIA.	Meter	32.00	<b>121767</b>
	2200 MM DIA.	Meter	34.00	<b>129153</b>
	2200 MM DIA.	Meter	36.00	<b>136548</b>
	2200 MM DIA.	Meter	38.00	<b>143958</b>
	2300 MM DIA.	Meter	10.00	<b>46742</b>
	2300 MM DIA.	Meter	12.00	<b>57359</b>
	2300 MM DIA.	Meter	16.00	<b>68771</b>
	2300 MM DIA.	Meter	18.00	<b>76255</b>
	2300 MM DIA.	Meter	20.00	<b>82579</b>
	2300 MM DIA.	Meter	22.00	<b>88908</b>
	2300 MM DIA.	Meter	26.00	<b>101701</b>
	2300 MM DIA.	Meter	28.00	<b>109638</b>
	2300 MM DIA.	Meter	30.00	<b>117634</b>
	2300 MM DIA.	Meter	32.00	<b>126472</b>
	2300 MM DIA.	Meter	34.00	<b>133541</b>
	2300 MM DIA.	Meter	36.00	<b>141544</b>
	2300 MM DIA.	Meter	38.00	<b>149604</b>
	2300 MM DIA.	Meter	40.00	<b>157620</b>
	2400MM DIA.	Meter	10.00	<b>53054</b>
	2400 MM DIA.	Meter	12.00	<b>59602</b>
	2400 MM DIA.	Meter	14.00	<b>67090</b>
	2400 MM DIA.	Meter	16.00	<b>73663</b>
	2400 MM DIA.	Meter	18.00	<b>80239</b>

	2400 MM DIA.	Meter	20.00	<b>86836</b>
	2400 MM DIA.	Meter	22.00	<b>94282</b>
	2400 MM DIA.	Meter	26.00	<b>102031</b>
	2400 MM DIA.	Meter	28.00	<b>109032</b>
	2400 MM DIA.	Meter	30.00	<b>116046</b>
	2400 MM DIA.	Meter	32.00	<b>123070</b>
	2400 MM DIA.	Meter	34.00	<b>130104</b>
	2400 MM DIA.	Meter	36.00	<b>137154</b>
	2400 MM DIA.	Meter	38.00	<b>144211</b>
	2400 MM DIA.	Meter	40.00	<b>145016</b>
	2400 MM DIA.	Meter	42.00	<b>152091</b>
	2500 MM DIA.	Meter	10.00	<b>55304</b>
	2500 MM DIA.	Meter	14.00	<b>68948</b>
	2500 MM DIA.	Meter	16.00	<b>75787</b>
	2500 MM DIA.	Meter	18.00	<b>82638</b>
	2500 MM DIA.	Meter	20.00	<b>89498</b>
	2500 MM DIA.	Meter	22.00	<b>96371</b>
	2500 MM DIA.	Meter	28.00	<b>121251</b>
	2500 MM DIA.	Meter	30.00	<b>129573</b>
	2500 MM DIA.	Meter	34.00	<b>142050</b>
	2500 MM DIA.	Meter	36.00	<b>150945</b>
	2500 MM DIA.	Meter	38.00	<b>159896</b>
	2500 MM DIA.	Meter	40.00	<b>168860</b>
	2500 MM DIA.	Meter	42.00	<b>177871</b>
	2500 MM DIA.	Meter	44.00	<b>186831</b>
	2500 MM DIA.	Meter	46.00	<b>195848</b>
	2600 MM DIA.	Meter	12.00	<b>58835</b>
	2600 MM DIA.	Meter	14.00	<b>71462</b>
	2600 MM DIA.	Meter	16.00	<b>78573</b>
	2600 MM DIA.	Meter	18.00	<b>85692</b>
	2600 MM DIA.	Meter	20.00	<b>92824</b>
	2600 MM DIA.	Meter	22.00	<b>99963</b>
	2600 MM DIA.	Meter	32.00	<b>143019</b>
	2600 MM DIA.	Meter	34.00	<b>151672</b>
	2600 MM DIA.	Meter	36.00	<b>160331</b>

	2600 MM DIA.	Meter	38.00	<b>169007</b>
	2600 MM DIA.	Meter	40.00	<b>177696</b>
	2600 MM DIA.	Meter	42.00	<b>186398</b>
	2600 MM DIA.	Meter	44.00	<b>195113</b>
	2600 MM DIA.	Meter	46.00	<b>203838</b>
	2600 MM DIA.	Meter	48.00	<b>212580</b>
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		<b>682</b>
	500 MM DIA.	Meter		<b>849</b>
	600 MM DIA.	Meter		<b>1044</b>
	700 MM DIA.	Meter		<b>1212</b>
	800 MM DIA.	Meter		<b>1383</b>
	900 MM DIA.	Meter		<b>1626</b>
	1000 MM DIA.	Meter		<b>1795</b>
	1100 MM DIA.	Meter		<b>2112</b>
	1200 MM DIA.	Meter		<b>2366</b>
	1300 MM DIA.	Meter		<b>2719</b>
	1400 MM DIA.	Meter		<b>3130</b>
	1500 MM DIA.	Meter		<b>3540</b>
	1600 MM DIA.	Meter		<b>3731</b>
	1700 MM DIA.	Meter		<b>3946</b>
	1800 MM DIA.	Meter		<b>4463</b>
	1900 MM DIA.	Meter		<b>5201</b>
	2000 MM DIA.	Meter		<b>6531</b>
	2100 MM DIA.	Meter		<b>7472</b>
	2200 MM DIA.	Meter		<b>8393</b>
	2300 MM DIA.	Meter		<b>10239</b>
	2400 MM DIA.	Meter		<b>12521</b>
	2500 MM DIA.	Meter		<b>14542</b>
	2600 MM DIA.	Meter		<b>16370</b>

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

MS Plates = Rs47,000/- 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 +R<sub>1</sub>

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

M<sub>1</sub> = Rs 47,000/-

M<sub>2</sub> = Cost of MS Plates at the time of preparation of estimate excluding all taxes and freight

W<sub>m</sub> = Weight of MS Plates in Kg's per meter of pipe

#### 15. S.S. RATES FOR H.D.P.E PIPES FOR THE YEAR 2019-20. (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	<b>34</b>

	OD 50 mm	49
	OD 63 mm	67
	OD 75 mm	92
	OD 90 mm	132
	OD 110 mm	198
	OD 125 mm	254
	OD 140 mm	316
	OD 160 mm	413
	OD 180 mm	522
	OD 200 mm	637
	OD 225 mm	808
	OD 250 mm	1001
	OD 280 mm	1247
	OD 315 mm	1585
	OD 355 mm	2073
	OD 400 mm	2686
	OD 450 mm	3414
	OD 500 mm	4194
	OD 560 mm	5185
	OD 630 mm	6558
	OD 710 mm	8333
	OD 800 mm	10547
	OD 900 mm	13364
	OD 1000 mm	16458

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

For PE - 80 grade Rs.88800/- 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 2019-20. (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	<b>Manufacture, Supply, &amp; 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 &amp; above 90 mm dia. straight length.)</b>					

	<b>Rate per Meter</b>					
	OD 20 mm					<b>23</b>
	OD 25 mm					<b>35</b>
	OD 32 mm			<b>38</b>	<b>42</b>	<b>57</b>
	OD 40 mm		<b>49</b>	<b>58</b>	<b>64</b>	<b>88</b>
	OD 50 mm	<b>60</b>	<b>73</b>	<b>89</b>	<b>101</b>	<b>136</b>
	OD 63 mm	<b>89</b>	<b>112</b>	<b>136</b>	<b>158</b>	<b>215</b>
	OD 75 mm	<b>126</b>	<b>160</b>	<b>191</b>	<b>229</b>	<b>304</b>
	OD 90 mm	<b>177</b>	<b>228</b>	<b>273</b>	<b>326</b>	<b>438</b>
	OD 110 mm	<b>269</b>	<b>340</b>	<b>404</b>	<b>498</b>	<b>666</b>
	OD 125 mm	<b>342</b>	<b>439</b>	<b>527</b>	<b>662</b>	<b>859</b>
	OD 140 mm	<b>429</b>	<b>548</b>	<b>661</b>	<b>837</b>	<b>1076</b>
	OD 160 mm	<b>563</b>	<b>716</b>	<b>859</b>	<b>1081</b>	<b>1407</b>
	OD 180 mm	<b>707</b>	<b>905</b>	<b>1087</b>	<b>1376</b>	<b>1777</b>
	OD 200 mm	<b>876</b>	<b>1119</b>	<b>1341</b>	<b>1709</b>	<b>2187</b>
	OD 225 mm	<b>1133</b>	<b>1447</b>	<b>1740</b>	<b>2147</b>	<b>2773</b>
	OD 250 mm	<b>1394</b>	<b>1788</b>	<b>2149</b>	<b>2665</b>	<b>3420</b>
	OD 280 mm	<b>1747</b>	<b>2238</b>	<b>2689</b>	<b>3329</b>	<b>4289</b>
	OD 315 mm	<b>2214</b>	<b>2834</b>	<b>3405</b>	<b>4197</b>	<b>5422</b>
	OD 355 mm	<b>2775</b>	<b>3548</b>	<b>4264</b>	<b>5148</b>	<b>6919</b>
	OD 400 mm	<b>3661</b>	<b>4673</b>	<b>5604</b>	<b>7380</b>	<b>8945</b>
	OD 450 mm	<b>4543</b>	<b>5820</b>	<b>6996</b>	<b>9331</b>	<b>11276</b>
	OD 500 mm	<b>5617</b>	<b>7176</b>	<b>8629</b>	<b>11525</b>	<b>13767</b>
	OD 560 mm	<b>6472</b>	<b>8275</b>	<b>9880</b>	<b>12767</b>	
	OD 630 mm	<b>8157</b>	<b>10470</b>	<b>12517</b>	<b>15013</b>	
	OD 710 mm	<b>10380</b>	<b>13264</b>	<b>15898</b>		
	OD 800 mm	<b>13172</b>	<b>16844</b>	<b>20254</b>		
	OD 900 mm	<b>16686</b>	<b>21323</b>			
	OD 1000 mm	<b>20577</b>				

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

For PE - 100 grade Rs..90110/-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 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 2019-20**

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	<b>96</b>	<b>121</b>	<b>145</b>	<b>173</b>	<b>207</b>
	OD 75 mm	<b>136</b>	<b>174</b>	<b>207</b>	<b>247</b>	<b>294</b>
	OD 90 mm	<b>193</b>	<b>248</b>	<b>294</b>	<b>350</b>	<b>424</b>
	OD 110 mm	<b>278</b>	<b>351</b>	<b>419</b>	<b>503</b>	<b>600</b>
	OD 125 mm	<b>355</b>	<b>453</b>	<b>542</b>	<b>642</b>	<b>776</b>
	OD 140 mm	<b>444</b>	<b>564</b>	<b>679</b>	<b>809</b>	<b>974</b>
	OD 160 mm	<b>578</b>	<b>737</b>	<b>886</b>	<b>1047</b>	<b>1267</b>
	OD 180 mm	<b>728</b>	<b>935</b>	<b>1121</b>	<b>1332</b>	<b>1603</b>
	OD 200 mm	<b>902</b>	<b>1153</b>	<b>1382</b>	<b>1649</b>	<b>1976</b>
	OD 225 mm	<b>1138</b>	<b>1453</b>	<b>1748</b>	<b>2079</b>	<b>2504</b>
	OD 250 mm	<b>1404</b>	<b>1798</b>	<b>2157</b>	<b>2567</b>	<b>3084</b>
	OD 280 mm	<b>1755</b>	<b>2248</b>	<b>2690</b>	<b>3227</b>	<b>3873</b>
	OD 315 mm	<b>2222</b>	<b>2847</b>	<b>3432</b>	<b>4072</b>	<b>4897</b>
	OD 355 mm	<b>2815</b>	<b>3606</b>	<b>4338</b>	<b>5177</b>	<b>6213</b>
	OD 400 mm	<b>3728</b>	<b>4771</b>	<b>5728</b>	<b>6829</b>	<b>8190</b>
	OD 450 mm	<b>4705</b>	<b>6035</b>	<b>7253</b>	<b>8628</b>	
	OD 500 mm	<b>5816</b>	<b>7440</b>	<b>8946</b>	<b>10664</b>	
	OD 560 mm	<b>7272</b>	<b>9324</b>	<b>11224</b>		
	OD 630 mm	<b>9207</b>	<b>11802</b>	<b>14180</b>		
	OD 710 mm	<b>11961</b>	<b>15324</b>			
	OD 800 mm	<b>15176</b>				
	OD 900 mm	<b>19221</b>				
	OD 1000 mm	<b>23748</b>				

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

For PE - 100 grade Rs.90110/-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 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 2019-20.**

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	63
	OD 63 mm	80
	OD 75 mm	96
	OD 90 mm	134
	OD 110 mm	185
	OD 125 mm	333
	OD 140 mm	312
	OD 160 mm	436
	OD 180 mm	663
	OD 200 mm	853
	OD 225 mm	980
	OD 250 mm	1148
	OD 280 mm	1282
	OD 315 mm	1478
	OD 355 mm	3091
	OD 400 mm	4119
	OD 450 mm	6852
	OD 500 mm	7627
(b)	MS FLANGES	Rate per Each
	OD 50 mm	77
	OD 63 mm	97
	OD 75 mm	124
	OD 90 mm	134
	OD 110 mm	141
	OD 125 mm	193
	OD 140 mm	209
	OD 160 mm	275
	OD 180 mm	387
	OD 200 mm	502
	OD 225 mm	629
	OD 250 mm	742
	OD 280 mm	842
	OD 315 mm	990
	OD 355 mm	1677
	OD 400 mm	2080
	OD 450 mm	2715
	OD 500 mm	3109
(c)	END CAPS	Rate per Each
	OD 50 mm	46
	OD 63 mm	55
	OD 75 mm	69

	OD 90 mm	<b>92</b>
	OD 110 mm	<b>105</b>
	OD 125 mm	<b>145</b>
	OD 140 mm	<b>170</b>
	OD 160 mm	<b>259</b>
	OD 180 mm	<b>421</b>
	OD 200 mm	<b>461</b>
	OD 225 mm	<b>480</b>
	OD 250 mm	<b>682</b>
	OD 280 mm	<b>698</b>
	OD 315 mm	<b>954</b>
	OD 355 mm	<b>1473</b>
	OD 400 mm	<b>2573</b>
	OD 450 mm	<b>4138</b>
	OD 500 mm	<b>7627</b>
<b>(d)</b>	<b>REDUCERS</b>	<b>Rate per Each</b>
	OD 50 mm x 63 mm	<b>63</b>
	OD 63 mm x 75 mm	<b>92</b>
	OD 75 mm x 90 mm	<b>151</b>
	OD 90 mm x 110 mm	<b>208</b>
	OD 110 mm x 125 mm	<b>318</b>
	OD 125 mm x 140 mm	<b>440</b>
	OD 140 mm x 160 mm	<b>614</b>
	OD 160 mm x 180 mm	<b>850</b>
	OD 180 mm x 200 mm	<b>1097</b>
	OD 200 mm x 225 mm	<b>1348</b>
	OD 225 mm x 250 mm	<b>1837</b>
	OD 250 mm x 280 mm	<b>2608</b>
	OD 280 mm x 315 mm	<b>3688</b>
	OD 315 mm x 355 mm	<b>4230</b>
	OD 355 mm x 400 mm	<b>5968</b>
	OD 400 mm x 450 mm	<b>6192</b>
	OD 450 mm x 500 mm	<b>7938</b>

<b>(e)</b>	<b>TEES</b>	<b>Rate per Each</b>
	OD 50 mm	<b>88</b>
	OD 63 mm	<b>140</b>
	OD 75 mm	<b>170</b>
	OD 90 mm	<b>298</b>
	OD 110 mm	<b>353</b>
	OD 125 mm	<b>531</b>
	OD 140 mm	<b>732</b>
	OD 160 mm	<b>1261</b>
	OD 180 mm	<b>1710</b>

	OD 200 mm	<b>2355</b>
	OD 225 mm	<b>3344</b>
	OD 250 mm	<b>4579</b>
	OD 280 mm	<b>6411</b>
	OD 315 mm	<b>9136</b>
	OD 355 mm	<b>13029</b>
	OD 400 mm	<b>19083</b>
	OD 450 mm	<b>27106</b>
	OD 500 mm	<b>37227</b>
(f)	BENDS Rate per Each	
	OD 50 mm	<b>55</b>
	OD 63 mm	<b>123</b>
	OD 75 mm	<b>161</b>
	OD 90 mm	<b>274</b>
	OD 110 mm	<b>362</b>
	OD 125 mm	<b>534</b>
	OD 140 mm	<b>703</b>
	OD 160 mm	<b>1049</b>
	OD 180 mm	<b>1506</b>
	OD 200 mm	<b>2039</b>
	OD 225 mm	<b>2894</b>
	OD 250 mm	<b>3966</b>
	OD 280 mm	<b>5718</b>
	OD 315 mm	<b>7909</b>
	OD 355 mm	<b>10963</b>
	OD 400 mm	<b>16538</b>
	OD 450 mm	<b>24312</b>
	OD 500 mm	<b>32960</b>
II	Providing and Fixing electro Fusion <u>Ferrule Tapping saddle</u> 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 diameter 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 1/2"	1390
	250 x3/4"	1390
	250 x1"	1390
	250 x 1 1/4"	2009
	250 x1 1/2"	2009
	250 x 2"	2009
	315 x 1/2"	1655
	315 x3/4"	1655

	315x1"	1655
	315x1 1/4"	2248
	315x1 1/2"	2248
	315x2"	2248

**Note: For Item No.18( II ). The above rates are including taxes of 18% GST. The same may be deducted for obtaining basic rates.**

#### **19. S o R FOR Double Wall Corrugated (DWC) Pipes FOR THE YEAR 2019-20**

Sl.No.	Description	Unit	SoR RATES 2019-20
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		<b>156</b>
	135		<b>237</b>
	150		<b>289</b>
	170		<b>349</b>
	200		<b>479</b>
	250		<b>740</b>
	300		<b>995</b>
	400		<b>1,708</b>
	500		<b>2,624</b>
	600		<b>4,523</b>
	800		<b>7,499</b>
	1000		<b>12,212</b>

## 20. SoR FOR PVC PIPES FOR THE YEAR 2019-20

Sl. No.	Description	TEST PRESSURE		
		4.0 Kgs/cm <sup>2</sup>	6 Kgs/cm <sup>2</sup>	10 Kgs/cm <sup>2</sup>

1	Manufacture, Supply and Delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (3 <sup>rd</sup> 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			<b>16</b>
	25			<b>24</b>
	32			<b>36</b>
	40		<b>34</b>	<b>55</b>
	50		<b>51</b>	<b>85</b>
	63	<b>56</b>	<b>81</b>	<b>121</b>
	75	<b>81</b>	<b>111</b>	<b>176</b>
	90	<b>112</b>	<b>160</b>	<b>250</b>
	110	<b>162</b>	<b>232</b>	<b>372</b>
	125	<b>212</b>	<b>296</b>	<b>486</b>
	140	<b>265</b>	<b>381</b>	<b>603</b>
	160	<b>349</b>	<b>494</b>	<b>790</b>
	180	<b>444</b>	<b>636</b>	<b>1013</b>
	200	<b>540</b>	<b>774</b>	<b>1233</b>
	225	<b>722</b>	<b>1043</b>	<b>1659</b>
	250	<b>838</b>	<b>1268</b>	<b>2009</b>
	280	<b>1090</b>	<b>1600</b>	<b>2530</b>
	315	<b>1383</b>	<b>2028</b>	<b>3203</b>
	355	<b>1820</b>	<b>2640</b>	
	400	<b>2295</b>	<b>3360</b>	

**Note:**

The resin cost adopted for the above rates is Rs.78,668/- 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 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 2019-20**

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</u>

	jointing 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	<b>296</b>
	OD 200 mm	<b>449</b>
	OD 250mm	<b>696</b>
	OD 315 mm	<b>1099</b>
	Pipe Series (S20)	
	OD 125 mm	<b>228</b>
	OD 160 mm	<b>366</b>
	OD 200 mm	<b>555</b>
	OD 250mm	<b>865</b>
	OD 315 mm	<b>1358</b>
	Pipe Series (S16.5)	
	OD 110 mm	<b>201</b>
	OD 125 mm	<b>271</b>
	OD 160 mm	<b>425</b>
	OD 200 mm	<b>660</b>
	OD 250mm	<b>1023</b>
	OD 315 mm	<b>1615</b>

**Note:** The resin cost adopted for the above rates is Rs.78,668/- 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.

**22. SoR FOR NON- PRESSURE P.V.C.U PIPES FOR THE YEAR 2019-20**

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	315
	OD 200 mm	478
	OD 250mm	743
	OD 315 mm	1170
	Pipe Series (S20)	
	OD 125 mm	245
	OD 160 mm	387
	OD 200 mm	589
	OD 250mm	919
	OD 315 mm	1443
	Pipe Series (S16.5)	
	OD 110 mm	214
	OD 125 mm	289
	OD 160 mm	453
	OD 200 mm	697
	OD 250mm	1084
	OD 315 mm	1712

**Note:** The resin cost adopted for the above rates is Rs.78,668/- 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 2019-20		
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	928	1009	1079
	100	Rmt	1150	1266	1350
	125	Rmt	1486	1623	1746
	150	Rmt	1803	1976	2123
	200	Rmt	2637	2861	3088
	250	Rmt	3554	3869	4174
	300	Rmt	4583	5010	5414
	350	Rmt	5773	6262	6774
	400	Rmt	7026	7677	8267
	450	Rmt	8472	9307	10013
	500	Rmt	9917	10804	11658
	600	Rmt	13216	14428	15587
	700	Rmt	17056	18634	20077
	750	Rmt	19101	20884	22595
	800	Rmt	21383	23298	25135
	900	Rmt	26045	28417	30708
	1000	Rmt	31290	34182	36835
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		1.17	1.17	1.17

	Per KM/RMT				
	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 per Meter.

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. 36,500/-

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 2019-20

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	913	1091
	150	Rmt	1314	1627
	200	Rmt	1789	2164
	250	Rmt	2383	2868
	300	Rmt	3040	3663
	350	Rmt	3909	4632
	400	Rmt	4688	5527
	450	Rmt	5669	6669
	500	Rmt	6679	7687
	600	Rmt	8959	10254
	700	Rmt	11390	12945
	750	Rmt	12883	14684
	800	Rmt	14138	15977
	900	Rmt	17412	19636
	1000	Rmt	20521	23087
	1100	Rmt		25086
	1200	Rmt		29323
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	814	1039
	150	Rmt	1204	1534
	200	Rmt	1660	2080
	250	Rmt	2160	2759
	300	Rmt	2852	3521
	350	Rmt	3593	4376
	400	Rmt	4339	5274
	450	Rmt	5181	6236
	500	Rmt	6172	7427
	600	Rmt	8159	9600

Sl. No.	Description				Unit	Class of Pipe	
	700				Rmt	<b>10746</b>	<b>12177</b>
	750				Rmt	<b>12009</b>	<b>13607</b>
	800				Rmt	<b>13290</b>	<b>15037</b>
	900				Rmt	<b>16085</b>	<b>18166</b>
	1000				Rmt	<b>19104</b>	<b>21616</b>
	1100				Rmt		<b>23218</b>
	1200				Rmt		<b>24640</b>
3	Centrifugally cast (Spun) Ductile Iron pressure pipes with <u>flanged (welded) ends</u> 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	<b>3321</b>	<b>4269</b>	<b>5214</b>	<b>6162</b>	<b>8187</b>
	150	Each	<b>5325</b>	<b>7127</b>	<b>7565</b>	<b>7962</b>	<b>11169</b>
	200	Each	<b>7071</b>	<b>9535</b>	<b>9587</b>	<b>10566</b>	<b>14562</b>
	250	Each	<b>9236</b>	<b>12526</b>	<b>13656</b>	<b>14247</b>	<b>19771</b>
	300	Each	<b>11858</b>	<b>16042</b>	<b>18009</b>	<b>18535</b>	<b>25461</b>
	350	Each	<b>21597</b>	<b>24327</b>	<b>25383</b>	<b>27869</b>	<b>35530</b>
	400	Each	<b>25297</b>	<b>31581</b>	<b>34645</b>	<b>35000</b>	<b>41984</b>
	450	Each	<b>32333</b>	<b>39879</b>	<b>42961</b>	<b>44078</b>	<b>51823</b>
	500	Each	<b>41262</b>	<b>50229</b>	<b>51866</b>	<b>52369</b>	<b>61686</b>
	600	Each	<b>47769</b>	<b>59915</b>	<b>67315</b>	<b>68526</b>	<b>86532</b>
	700	Each	<b>67106</b>	<b>81695</b>	<b>85104</b>	<b>87657</b>	<b>94770</b>
	800	Each	<b>79130</b>	<b>96824</b>	<b>100973</b>	<b>109712</b>	<b>121228</b>
	900	Each	<b>84026</b>	<b>105493</b>	<b>120470</b>	<b>137362</b>	<b>151569</b>
	1000	Each	<b>115096</b>	<b>140362</b>	<b>150596</b>	<b>171018</b>	<b>188058</b>
	1100	Each	<b>134238</b>	<b>161162</b>	<b>184443</b>	<b>197334</b>	<b>223562</b>
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
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

Of SoR =Rs.36,500/-(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 2019-20

Sl. No.	Description	Unit	Rate
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	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	<b>120.92</b>
	Above 500 x 500 mm dia.	Kg	<b>133.92</b>
II	DI All Socket Tees		
	Up to 300 x 300 mm dia.	Kg	<b>120.92</b>
	Above 300 x 300 mm dia.	Kg	<b>133.92</b>
III	DI Double socket Tapers (Reducer)		
	Up to 500 x 450 mm dia.	Kg	<b>120.92</b>
	Above 500 x 450 mm dia.	Kg	<b>133.92</b>
IV	DI Flanged Socket		
	Up to 500 mm dia.	Kg	<b>120.92</b>
	Above 500 mm dia.	Kg	<b>133.92</b>
V	DI Flanged Spigot		
	Up to 500 mm dia.	Kg	<b>120.92</b>
	Above 500 mm dia.	Kg	<b>133.92</b>
VI	DI Double Socket Duck Foot Bend		
	Up to 300mm dia.	Kg	<b>120.92</b>
	Above 300mm dia.	Kg	<b>133.92</b>
VII	DI Double Flange Duck/Foot bend		
	Up to 300 mm dia.	Kg	<b>120.92</b>
	Above 300 mm dia.	Kg	<b>133.92</b>
VIII	DI All socket Cross.		
	Up to 300 x 300 mm dia.	Kg	<b>120.92</b>
	Above 300 x 300 mm dia.	Kg	<b>133.92</b>
IX	DI All Flange Tee		
	Up to 500 x 500 mm dia.	Kg	<b>120.92</b>
	Above 500 x 500 mm dia.	Kg	<b>133.92</b>
X	DI All Flange Cross		
	Up to 300 x 300 mm dia.	Kg	<b>120.92</b>
	Above 300 x 300 mm dia.	Kg	<b>133.92</b>
XI	DI Double Flange Reducer		
	Up to 500 x 450 mm dia.	Kg	<b>120.92</b>
	Above 500 x 450 mm dia.	Kg	<b>133.92</b>

XII	Blank Flange		
	Up to 500 mm dia.	Kg	<b>120.92</b>
	Above 500 mm dia.	Kg	<b>133.92</b>
XIII	Mechanical Joints		
	Up to 300 mm dia.	Kg	<b>120.92</b>
	Above 300 mm dia.	Kg	<b>133.92</b>
XIV	DI Double Socket Bends		
	Up to 500mm dia.	Kg	<b>120.92</b>
	Above 500 mm dia.	Kg	<b>133.92</b>
XV	DI Double Flanged Bends		
	Up to 500mm dia.	Kg	<b>120.92</b>
	Above 500 mm dia.	Kg	<b>133.92</b>

**26. S o R FOR RUBBER GASKETS SUITABLE FOR C.I./ D.I. S/S PIPES FOR THE  
YEAR 2019-20**

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	<b>39</b>
	100mm dia.	Each	<b>61</b>
	125mm dia.	Each	<b>73</b>
	150mm dia.	Each	<b>89</b>
	200mm dia.	Each	<b>107</b>
	250mm dia.	Each	<b>120</b>
	300mm dia.	Each	<b>183</b>
	350mm dia.	Each	<b>231</b>
	400mm dia.	Each	<b>256</b>
	450mm dia.	Each	<b>299</b>
	500mm dia.	Each	<b>416</b>
	600mm dia.	Each	<b>525</b>
	700mm dia.	Each	<b>698</b>
	750mm dia.	Each	<b>823</b>
	800mm dia.	Each	<b>987</b>
	900mm dia.	Each	<b>1191</b>
	1000mm dia.	Each	<b>1303</b>

## 27. SoR FOR CI PIPES AND SPECIALS FOR THE YEAR 2019-20

Sl. No.	Description	Quality or sort	Rate/ Kg including packing, forwarding, Transit risk and delivery anywhere in A.P. for the year 2019-20. (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	<b>81.74</b>

**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.36,500/- per M.T. (Excluding all taxes).

**Coke** : Rs.29,488/- 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 2019-20**  
**(Rate Each in Rs.)**

Sl. No.	Description	TEST PRESSURE			
		10 Kgs/cm <sup>2</sup>	15 Kgs/cm <sup>2</sup>	20 Kgs/cm <sup>2</sup>	25 Kgs/cm <sup>2</sup>
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 2019-20.**

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 2019-20.**

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 2019-20.**

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 2019-20

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	<b>4826</b>
	80	Each	<b>5282</b>
	100	Each	<b>6900</b>
	125	Each	<b>8800</b>
	150	Each	<b>9777</b>
	200	Each	<b>13864</b>
	250	Each	<b>16504</b>
	300	Each	<b>26409</b>
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	<b>59,785</b>
	400	Each	<b>68,507</b>
	450	Each	<b>74,325</b>
	500	Each	<b>88,959</b>
	600	Each	<b>1,03,515</b>
	700	Each	<b>1,15,161</b>
	750	Each	<b>1,18,075</b>
	800	Each	<b>1,41,365</b>
	900	Each	<b>1,47,482</b>
	1000	Each	<b>1,76,660</b>
	1100	Each	<b>1,91,245</b>
	1200	Each	<b>2,20,420</b>
	1300	Each	<b>2,49,592</b>
	1400	Each	<b>2,79,334</b>
	1600	Each	<b>3,08,566</b>
	1800	Each	<b>3,65,405</b>
	2000	Each	<b>4,54,730</b>
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 2019-20

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	<b>287</b>
2	SUPPLY AND DELIVERY OF LEAD WOOL BEST QUALITY INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.	Per Kg	<b>168</b>
3	SUPPLY AND DELIVERY OF SPUN YARN OF BEST QUALITY INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.	Per Kg	<b>116</b>
4	SUPPLY AND DELIVERY OF RUBBER PACKING INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE.		
	a) 3 mm thick	Per Kg	<b>93</b>
	b) 6 mm thick	Per Kg	<b>93</b>
5	SUPPLY AND DELIVERY OF BOLTS AND NUTS WITH DOUBLE WASHERS INCLUDING TAXES AND CONVEYANCE ETC., COMPLETE. (1/2" TO 1")	Per Kg	<b>111</b>

**34. S o R FOR TRENCH LESS TECHNOLOGY WITH PIPE JACKING METHOD FOR THE YEAR 2019-20**

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	<b>26000</b>
	900 mm dia.	Rmt	<b>27300</b>
	1000 mm dia.	Rmt	<b>28600</b>
	1100 mm dia.	Rmt	<b>29900</b>
	1200 mm dia.	Rmt	<b>31200</b>
	1300 mm dia.	Rmt	<b>32500</b>
	1400mm dia.	Rmt	<b>35100</b>
	1500 mm dia.	Rmt	<b>39000</b>

### 35.S o R FOR HOUSE SERVICE CONNECTIONS FOR THE YEAR 2019-20

Sl. No.	Description	Unit	Rate
1	<b>House service connections (Compression Fittings)</b> 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, labor 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	<b>House service connections (Composite strap saddle for DI/CI pipes)</b> 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, labor 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	<b>House service connections (Regulating Brass ferrule)</b>		

	The cost shall include testing of all materials, labor 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	<b>182</b>
	3/4"	Each	<b>300</b>
	1"	Each	<b>523</b>
<b>4</b>	<b>House service connections (PP Saddle)</b>		
	(Main pipe outer diameter in mm & tapping size in inches)		
	63x1/2"	Each	<b>800</b>
	63x3/4"	Each	<b>800</b>
	63x1"	Each	<b>800</b>
	75x1/2"	Each	<b>800</b>
	75x3/4"	Each	<b>800</b>
	75x1"	Each	<b>800</b>
	90x1/2"	Each	<b>800</b>
	90x3/4"	Each	<b>800</b>
	90x1"	Each	<b>800</b>
	110x1/2"	Each	<b>800</b>
	110x3/4"	Each	<b>800</b>
	110x1"	Each	<b>800</b>
	125x1/2"	Each	<b>800</b>
	125x3/4"	Each	<b>800</b>
	125x1"	Each	<b>800</b>
	140x1/2"	Each	<b>800</b>
	140x3/4"	Each	<b>800</b>
	140x1"	Each	<b>800</b>
	160x1/2"	Each	<b>800</b>
	160x3/4"	Each	<b>800</b>
	160x1"	Each	<b>800</b>
	180x1/2"	Each	<b>954</b>
	180x3/4"	Each	<b>954</b>
	180x1"	Each	<b>954</b>
	200x1/2"	Each	<b>954</b>
	200x3/4"	Each	<b>954</b>
	200x1"	Each	<b>954</b>
<b>5</b>	Supply and Fixing of Meter Box / Valve box is recommended to encompass & protect Water meters/valves installed on drinking water supply pipes. Meter Box manufacturers must have ISO 9001, ISO 14001 and ISO 18001 certification for their QMS, EMS & OHSAS systems. Meter Box should be of two components, comprising body and lid. Provision for embossed marking on the lid as per customer requirement, Nominal Size of box should be 8" X 12" with Rectangular shape ,Minimum Dimensions: Length		

	355mm x height 180mm x width 270mm,Locking: with Built in lock.		
	METER BOX 8X12 WITH BUILT IN LOCK,	Each	<b>450</b>

**Note: For Item No.35 (1 to 5). The above rates are including taxes of 18% GST. The same may be deducted for obtaining basic rates.**

# GOVERNMENT OF ANDHRA PRADESH



BUILDINGSSoR: 2019-20

# **SCHEDULE OF RATES FOR BUILDINGS WORKS**

**FOR THE YEAR 2019-20**

**ALL ENGINEERING  
DEPARTMENTS**

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

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Procs.No. 20938/SOR/DCE(B)/EE(B)/DEE(B)/AEE/2019, Dt.18.07.2019

Sub:- Printing of Buildings-SoR for all the Engineering Departments specific to the functioning of Building works – Buildings-SoR:2019-20 – 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 25.06.2019,27.06.2019 and Dt: 08.07.2019.

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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. 1<sup>st</sup> cited.

In accordance therewith, the Committee of Chief Engineers has finalized and approved the Buildings-SoR: 2019-20 in the Minutes of Meeting held on Dt. 08.07.2019.

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-2019-20 remain applicable.

The Heads of Departments mentioned below are authorized to print the Buildings-SoR: 2019-20 and unauthorized printing & selling of the Buildings-SoR is strictly prohibited.

The Buildings SoR 2019-20 will come into force along with common SoR from the date decided by the BoCE.

The receipt of the proceedings may please be acknowledged.

Enclosed: Buildings SoR: 2019-20 as above

K.Nayeemulla  
Sd/- 18.07.2019  
Chief Engineer (R&B) Buildings&RSW  
Convener-Member,  
Committee of Chief Engineers-Buildings-SoR

To

- 1) Engineer-In-Chief, Public Health Engineering, Member, Flat No.504 &601, Garuda Enclave, Tadepalli, Guntur-522501.
- 2) Engineer-In-Chief, Panchayathraj, Member, Administration, PMGSY, APRRP- AIBB, VQC, ZP compound, opp PWD Grounds, MG Road, Vijayawada - 520002.

- 3)Engineer-In-Chief,Tribal Welfare , Member, D.No.40-6-22A, Kandhari Hotel Road, Adjacent to Southern Spice, Revenue Colony, Vijayawada-520010.
- 4) Chief Engineer, A.P. Housing Board, Member,D.No. 5-21, Prasadampadu, Elururoad, Vijayawada -521108
- 5)Chief Engineer, A.P.Housing Corporation, S.P's river view apartments, 2nd floor, Tadepalli , Amaravati-522501..
- 6) Chief Engineer, APSRTC,RTC House, 1st Floor of PNBS,Vijayawada.
- 7) Chief Engineer, A.P. Medical Services and Infrastructure Developmen Corporation, Member, Autonagar, Mangalagiri, 522503. Andhrapradesh
- 8) Chief Engineer, Police Housing Corporation, AP, Member, Tadepalli, Vijayawada
- 9) Chief Engineer (R&B) Electrical, Member, M.G.Road, Vijayawada.
- 10)Chief Engineer, Civil TTD, Member, Administrative Building, KT Road, Tirupathi, 517501 -AP.
- 11)Chief Engineer, O/o Vijayawada Municipal Corporation, Canal road, Krishnalanka, Vijayawada ,520001A.P.

**Copy to**

1. The Engineer-in-Chief (Admn , NH&CRF , RDC ), R&B Department, M.G road, Vijayawada.
2. The Chief Engineer (QC), R&B Department, M.G road , Vijayawada .
3. The Chief Engineer (COT), 76-16-4A/1,1<sup>st</sup> floor, Iron Yard, Opp. to Ramayalam, Gollapudi, Vijayawada-520012.
4. The Chief Engineer, APRSCL, D.No.5-21, Hostel Road, Prasadampadu, Vijayawada-521108.
5. The Chief Engineer, APEWIDC, Door No.9-76 ,Sai fortune Heights , Block A, Vaddeswaram Village, Guntur District - 522 502.

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

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IV	SUB-SECTION	PORCELAIN WALL TILES	14	15
V	SUB-SECTION	GLASS MOSAIC TILES	15	15
VI	SUB-SECTION	WALL CLADDING TILES	15	15
<b>D.</b>		<b>PAVING &amp; INTERLOCKING TILES</b>	<b>16</b>	<b>17</b>
I.	SUB-SECTION	TERRAZZO FLOOR TILES (PLAIN & CHEQUERED)	16	16
II.	SUB-SECTION	CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED)	16	17
III.	SUB-SECTION	PRE-CAST CONCRETE BLOCKS FOR PAVING	17	17
IV.	SUB-SECTION	VINYL FLOORING	17	17
<b>E.</b>		<b>TIMBER &amp; ROOFING MATERIALS</b>	<b>18</b>	<b>19</b>
I	SUB-SECTION	MEDIUM TEAK WOOD	18	18
II	SUB-SECTION	BEST TEAK WOOD	18	18
III	SUB-SECTION	BURMA TEAK WOOD	18	18
IV	SUB-SECTION	ASSAM TEAK WOOD	18	18
V	SUB-SECTION	SAL/ COUNTRY WOOD	18	18
VI	SUB-SECTION	ROOFING MATERIAL	18	19

Sl. No	SECTION	DESCRIPTION OF THE ITEM	FROM	TO
<b>F.</b>		<b>STEEL MATERIALS</b>	<b>19</b>	<b>21</b>
I	SUB-SECTION	MILD STEEL MATERIALS	19	20
II	SUB-SECTION	GALVANIZED STEEL MATERIALS	20	20
III	SUB-SECTION	STAINLESS STEEL MATERIALS	21	21
<b>G.</b>		<b>FIXTURES FOR DOORS &amp; WINDOWS</b>	<b>21</b>	<b>24</b>
I	SUB-SECTION	TOWER BOLTS	21	21
II	SUB-SECTION	HINGES	21	22
III	SUB-SECTION	DOOR HANDLES	22	22
IV	SUB-SECTION	ALDROPS	23	23
V	SUB-SECTION	LATCHES	23	23
VI	SUB-SECTION	DOOR CLOSURES	23	23
VII	SUB-SECTION	FLOOR SPRINGS	23	24
VIII	SUB-SECTION	MORTICE LOCKS	24	24
IX	SUB-SECTION	OTHER ACCESSORIES	24	24
<b>H.</b>		<b>CONSTRUCTION CHEMICALS &amp; ADMIXTURES</b>	<b>25</b>	<b>38</b>
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II	SUB-SECTION	INTERGRAL WATERPROOFING COMPOUND	33	33
III	SUB-SECTION	PLASTICIZERS AND WATER REDUCING AGENT	33	34
IV	SUB-SECTION	GROUTS	34	34
V	SUB-SECTION	BONDING AGENTS	34	34
VI	SUB-SECTION	SEALANTS	35	35
VII	SUB-SECTION	PROTECTIVE WATERPROOF COATINGS / CEMENT BASED COATINGS :	35	36
VIII	SUB-SECTION	ANTI CORROSIVE AGENTS	36	37
IX.	SUB-SECTION	CURING COMPOUND & MISCELLANEOUS CHEMICALS	37	38
<b>I.</b>		<b>GLASS MATERIALS</b>	<b>38</b>	<b>39</b>
I	SUB-SECTION	PLAIN GLASS PANES	38	38
II	SUB-SECTION	PIN HEADED GLASS PANES	38	38

Sl. No	SECTION	DESCRIPTION OF THE ITEM	FROM	TO
III	SUB-SECTION	TINTED GLASS PANES	38	38
IV	SUB-SECTION	FROSTED/ GROUND GLASS PANES	38	38
V	SUB-SECTION	TOUGHENED GLASS PANES	39	39
<b>J.</b>		<b>PAINTS &amp; POLISHES</b>	<b>39</b>	<b>41</b>
I	SUB-SECTION	PRIMERS, FILLERS & BASES	39	39
II	SUB-SECTION	DISTEMPER PAINTS	39	40
III	SUB-SECTION	EMULSION BASED PAINTS	40	40
IV	SUB-SECTION	SOLVENT BASED PAINTS	40	40
V	SUB-SECTION	OIL BASED ENAMEL PAINTS	40	40
VI	SUB-SECTION	TEXTURE PAINTS	40	40
VII	SUB-SECTION	SPECIAL PAINTS	40	41
<b>K.</b>		<b>PARTICLE BOARDS</b>	<b>41</b>	<b>44</b>
I	SUB-SECTION	MELAMINE FACED PLAIN PARTICLE BOARD	41	41
II	SUB-SECTION	INSULATING PARTICLE BOARDS	41	41
III	SUB-SECTION	MEDIUM DENSITY FIBRE BOARDS	41	43
IV	SUB-SECTION	CEMENT BONDED PARTICLE BOARDS	43	44
<b>L.</b>		<b>PLYWOODS, LAMINATES &amp; VENEERS</b>	<b>45</b>	<b>46</b>
I	SUB-SECTION	MOISTURE RESISTANT (MR) GRADE	45	45
II	SUB-SECTION	BOILING WATER RESISTANT (BWR) GRADE	45	45
III	SUB-SECTION	VENEERED DECORATIVE PLYWOOD	45	45
IV	SUB-SECTION	LAMINATES	45	46
V	SUB-SECTION	COMMERCIAL VENEERS	46	46
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I	SUB-SECTION	FALSE CEILINGs - TILES/ SHEETS	46	48
II	SUB-SECTION	FALSE CEILINGs - SECTIONS & ACCESSORIES	48	49
III	SUB-SECTION	WALL LINING & PANELLING	49	52
IV	SUB-SECTION	PARTITIONS	52	55
<b>N.</b>		<b>DOORS, SHUTTERS &amp; FRAMES</b>	<b>55</b>	<b>75</b>

Sl. No	SECTION	DESCRIPTION OF THE ITEM	FROM	TO
I	SUB-SECTION	DOOR FRAMES	55	59
II	SUB-SECTION	DOOR SHUTTERS WITHOUT FRAMES	59	63
III	SUB-SECTION	DOORS WITH SHUTTERS & FRAMES	63	75
IV	SUB-SECTION	CUP-BOARD DOORS	75	75
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II	SUB-SECTION	SLIDING WINDOWS	83	88
III	SUB-SECTION	VENTILLATORS	89	92
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I	SUB-SECTION	FIXED GLAZING	92	92
II	SUB-SECTION	STRUCTURAL GLAZING	92	93
III	SUB-SECTION	CURTAIN WALLING	93	93
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<b>T.</b>	<b>SECTION</b>	<b>READY MIX CONCRETE</b>	<b>94</b>	<b>94</b>
<b>U.</b>	<b>SECTION</b>	<b>EXPANSION JOINT FILLERS</b>	<b>94</b>	<b>95</b>
<b>V.</b>	<b>SECTION</b>	<b>LABOUR CHARGES</b>	<b>95</b>	<b>99</b>
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<b>X.</b>	<b>SECTION</b>	<b>MACHINERY &amp; OTHER HIRE CHARGES</b>	<b>105</b>	<b>105</b>
		<b>CENTERING AND SCAFFOLDING CHARGES</b>	<b>107</b>	<b>110</b>
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		<b>Typical Drawings &amp; Specifications for UPVC Doors &amp; Windows.</b>		

# **BUILDINGS SoR:2019-20**

**(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.1Buildings) 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,andElectrical and Electro-Mechanical items). The meeting of the above “SoR Committee for Buildings (Civil, Water Supply & Sanitary, Electrical and Electro-Mechanical items)” was convened several times during the year 2019 and finalized on 08.07.2019 with an objective to finalize and release the Buildings-SoR: 2019-20.

### **2.0 APPLICABILITY OF COMMON SoR – 2019-20**

The rates of labour, common materials & work items, Public Health items, conveyance rates of materials &hire charges approved and published in Common SoR-2019-20 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 over tax 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: 2019-20. 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. Wherever the concrete pump is used in the data, 8 working hours per day can be considered for rate analysis purpose.
3. 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.
4. Certain items in the SoR are deleted due to change in the specification, non-availability in the market, etc
5. 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-2019-20.
6. 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).
7. No allowance towards 'Labour Importation & Labour Amenities' shall be added to the data as they are included in the provision of 'Over heads and contractor's profit'.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.

14. 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.
15. Loading and unloading charges are not payable for conveyance by head load.
16. Loading and unloading charges are not payable for conveyance by mechanical means, for disposal of excavated material unless specified.
17. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone, are inclusive of stacking wherever applicable.
18. 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.
19. 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'.
20. Any errors, omissions, corrections or suggestions shall be brought to the notice of the 'COMMITTEE OF THE CHIEF ENGINEERS (Buildings SoR)' for corrective action.
21. 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.
22. The CWC (Ministry of Irrigation) has recommended that "where standard or schedule of rates are revised or where it 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'.
23. 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.
24. The technical specifications 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: 2019-20 (Civil & Electrical) has met in the chambers of Chief Engineer (R&B) Buildings & RSW, several times during the year 2019 and approved the Buildings SoR:2019-20, without 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 Amendments:
  - a) Proc. No. 20938/SOR/DCE(B)/EE(B)/DEE(B)/AEE/2019, dt: 14.05.2019

# **BUILDING ITEMS**

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
	<b>A.SECTION</b>	<b>BRICKS &amp; BUILDING BLOCKS</b> (ex-quarry price - excluding cost of conveyance, loading & unloading)		
	<b>I. SUB-SECTION</b>	<b>ORDINARY CLAY BRICKS</b>		
1	BMT-A.01	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Non-Modular of traditional size 23 x 11 x 7 cm	1000 Nos	<b>6000</b>
2	BMT-A.02	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Modular of traditional size 19 x 9 x 9 cm	1000 Nos	<b>6750</b>
	<b>II. SUB-SECTION</b>	<b>FLY-ASH CEMENT/LIME SOLID BLOCKS</b> (ex-quarry price - excluding cost of conveyance, loading & unloading)		
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	<b>25</b>
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	<b>22</b>
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	<b>20</b>
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	<b>15</b>
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	<b>8</b>
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	<b>16</b>
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	<b>12</b>
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	<b>24</b>
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	<b>20</b>
12	BMT-A.12	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 - 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	<b>21</b>
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	<b>11</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
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	6
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	12
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	11
17	BMT-A.17	Supply of well burnt cinder aggregates as per IS: 2686-1977	1 Cum	614
	<b>III. SUB-SECTION</b>	<b>AUTOCLAVED CONCRETE BLOCKS</b> <i>(landing cost - including cost of conveyance, loading &amp; unloading)</i>		
		<b>Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm<sup>2</sup></b>		
18	BMT-A.18	600 x 200 x 100 mm	Each	47
19	BMT-A.19	600 x 200 x 150 mm	Each	69
20	BMT-A.20	600 x 200 x 200 mm	Each	93
21	BMT-A.21	600 x 200 x 230 mm	Each	106
22	BMT-A.22	Supply of Cement based, Polymer modified Pre-mixed dry jointing mortar for laying AAC Blocks – Masonry Glue 110 or equivalent	1Kg	16
	<b>B.SECTION</b>	<b>NATURAL FLOORING STONES</b> <i>(ex-quarry price – excluding cost of conveyance, loading &amp; unloading)</i>		
	<b>I.SUB-SECTION</b>	<b>LOCALLY AVAILABLE FLOORING STONES</b>		
23	BMT-B.01	Kadapa slab 40 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	96
24	BMT-B.02	Kadapa slab 50 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	110
25	BMT-B.03	Shahabad /Tandur Rough Stone slabs of minimum of 25 mm thick	10 Sqm	956
26	BMT-B.04	Shahabad / Tandur Rough Stone slabs of minimum 40 mm thick	10 Sqm	1232
27	BMT-B.05	Polished Shahabad/ Tandur stone slabs of 15 to 18 mm thick	10 Sqm	1610
28	BMT-B.06	Polished black Kadapa slabs minimum of 15 mm thick (0.457x0.457M)	10 Sqm	1343
29	BMT-B.07	Polished Bethamcherla pure (marble type) white stone minimum 25 mm thick (0.254Mx0.254M)	10 Sqm	3834
30	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 2019-20 (Rs.)
1	2	3	4	5
31	BMT-B.17	Polished black Kadapa slabs of all sizes between 25 - 30 mm thickness	10 Sqm	1540
	<b>II.SUB-SECTION</b>	<b>NATURAL FLOORING STONES - MARBLE</b>		
32	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
33	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
34	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
35	BMT-B.15	Polished Marble Tiles of 8 - 10 mm thickness of all sizes and varieties	1 sqm	424
	<b>III.SUB-SECTION</b>	<b>NATURAL FLOORING STONES - GRANITE</b>		
36	BMT-B.09	High Polished Granite 16 to 18 mm thick up to 2.43 M other than black/ premium colours	1 Sqm	2695
37	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
38	BMT-B.11	High Polished Granite 16 to 18 mm thick up to 2.43 M black	1 Sqm	1991
39	BMT-B.16	Granite stone tiles 8 mm thick (mirror polished of all shades)	1 sqm	1005
	<b>C.SECTION</b>	<b>WALL &amp; FLOOR TILES (Landing cost – including loading, cost of conveyance, unloading)</b>		
	<b>I.SUB-SECTION</b>	<b>NON-PORCELAIN CERAMIC FLOOR TILES</b>		
40	BMT-C.01	Supply of Non-skid red or white full body Ceramic floor tiles of Size 300 mm x 300 mm and thickness between 7-8 mm and 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	370
41	BMT-C.02	Supply of Non-skid red or white full body Ceramic floor tiles of Size 450 mm x 450 mm and thickness between 7-8 mm and 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	374
42	BMT-C.03	Supply of Non-skid red or white full body Ceramic floor tiles of Size 600 mm x 600 mm and thickness between 8-10 mm and 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	484
43	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	1 Sqm	508

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		Size 600 mm x 600 mm and thickness between 8-10 mm and 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
	<b>II. SUB-SECTION</b>	<b>PORCELAIN VITRIFIED FLOOR TILES</b>		
44	BMT-C.05	<b>ITEM DELETED</b>		
45	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	<b>418</b>
46	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	<b>421</b>
47	BMT-C.08	<b>ITEM DELETED</b>		
		Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
48	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 and 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	<b>612</b>
49	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 and 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	<b>758</b>
50	BMT-C.11	<b>ITEM DELETED</b>		
51	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 Size 800 x 800 mm and thickness between 9-11 mm of 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	<b>718</b>
52	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 Size 900 x 900 mm and thickness between 9-11 mm of 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	<b>924</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
53 to 59	BMT-C.14 to BMT-C.20	<b>ITEMS DELETED</b>		
	<b>III.SUB-SECTION</b>	<b>CERAMIC WALL TILES</b>		
60	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 and 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	<b>323</b>
61	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 and 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	<b>396</b>
62	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 and 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	<b>538</b>
	<b>IV.SUB-SECTION</b>	<b>PORCELAIN WALL TILES</b>		
63	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	<b>554</b>
64	BMT-C.25	Supply of <b>digital / polished</b> 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	<b>556</b>
65	BMT-C.26	Supply of digital / polished glazed full body porcelain <b>highlighter</b> 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	<b>564</b>
66	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	<b>612</b>
67	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	1 Sqm	<b>726</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
68 to 70	BMT-C.29 to BMT-C.31	<b>ITEMS DELETED</b>		
71	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	<b>294</b>
72	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	<b>149</b>
73	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	<b>295</b>
74	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	<b>157</b>
75	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	<b>591</b>
76	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	<b>298</b>
	<b>V.SUB-SECTION</b>	<b>GLASS MOSAIC TILES</b>		
77 to 79	BMT-C.38 to BMT-C.40	<b>ITEMS DELETED</b>		
	<b>VI.SUB-SECTION</b>	<b>WALL CLADDING TILES</b>		
80	BMT-C.41	Supply of glazed full body porcelain tiles for external cladding purposes of any size and <b>thickness between 6-10 mm</b> 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	<b>527</b>
81	BMT-C.42	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and <b>thickness between 5-7 mm</b> 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	<b>422</b>
82	BMT-C.43	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and <b>thickness between 10-12 mm</b> 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in	1 Sqm	<b>437</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		all shades and designs		
83	BMT-C.44	<b>ITEM DELETED</b>		
	<b>D.SECTION</b>	<b>PAVING &amp; INTERLOCKING TILES</b>		
	<b>I.SUB-SECTION</b>	<b>TERRAZZO FLOOR TILES (PLAIN &amp; CHEQUERED)</b> <i>(landing cost - including cost of conveyance, loading &amp; unloading)</i>		
84	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	<b>266</b>
85	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	<b>257</b>
86	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	<b>272</b>
	<b>II.SUB-SECTION</b>	<b>CEMENT CONCRETE FLOOR TILES (PLAIN &amp; CHEQUERED)</b>		
87	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	<b>241</b>
88	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	<b>252</b>
89	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	<b>257</b>
90	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	<b>269</b>
91	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	<b>280</b>
92	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	<b>288</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
93	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	419
94	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	440
	<b>III.SUB-SECTION</b>	<b>PRE-CAST CONCRETE BLOCKS FOR PAVING</b>		
95	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	273
96	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	311
97	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	443
98	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	488
99	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	555
100	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	178
	<b>IV..SUB-SECTION</b>	<b>VINYL FLOORING</b>		
101	BMT-D.18	<b>Vinyl Flooring</b> 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
102	BMT-D.19	<b>Vinyl Composition Floor Tiles</b> 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

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
103	BMT-D.20	<b>Vinyl Flooring Sheets or tiles</b> 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	<b>327</b>
	<b>E.SECTION</b>	<b>TIMBER &amp; ROOFING MATERIALS</b> (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>		
	<b>I.SUB-SECTION</b>	<b>MEDIUM TEAK WOOD</b>		
104	BMT-E.01	Medium Teak Wood scantlings: up to 2.0 M	1 cum	<b>71195</b>
105	BMT-E.02	Medium Teak Wood scantlings: 2.0 to 3.0 M	1 cum	<b>79106</b>
106	BMT-E.03	Medium Teak Wood scantlings: above 3.0 M	1 cum	<b>87017</b>
107	BMT-E.04	Medium Teak Wood Plancks: any thickness	1 cum	<b>142391</b>
	<b>II.SUB-SECTION</b>	<b>BEST TEAK WOOD</b>		
108	BMT-E.05	Best Teak Wood scantlings: up to 2.0 M	1 cum	<b>122614</b>
109	BMT-E.06	Best Teak Wood scantlings: 2.0 to 3.0 M	1 cum	<b>130525</b>
110	BMT-E.07	Best Teak Wood scantlings: above 3.0 M	1 cum	<b>138436</b>
111	BMT-E.08	Best Teak Wood Plancks: any thickness	1 cum	<b>154257</b>
	<b>III.SUB-SECTION</b>	<b>BURMA TEAK WOOD</b>		
112	BMT-E.09	Burma Teak Wood scantlings: up to 2.0 M	1 cum	<b>168485</b>
113	BMT-E.10	Burma Teak Wood scantlings: 2.0 to 3.0 M	1 cum	<b>173298</b>
114	BMT-E.11	Burma Teak Wood scantlings: above 3.0 M	1 cum	<b>182272</b>
115	BMT-E.12	Burma Teak Wood Plancks: any thickness	1 cum	<b>197369</b>
	<b>IV.SUB-SECTION</b>	<b>ASSAM TEAK WOOD</b>		
116	BMT-E.13	Assam Teak Wood scantlings: any length	1 cum	<b>45166</b>
117	BMT-E.14	Assam Teak Wood Plancks: any thickness	1 cum	<b>65493</b>
	<b>V.SUB-SECTION</b>	<b>SAL/ COUNTRY WOOD</b>		
118	BMT-E.15	Sal Wood scantlings: any length	1 cum	<b>46217</b>
119	BMT-E.16	Sal Wood Plancks: any thickness	1 cum	<b>58690</b>
	<b>VI.SUB-SECTION</b>	<b>ROOFING MATERIAL</b>		
120	BMT-E.17	A.C sheet Corrugated 6 mm thick	1 sqm	<b>204</b>
121	BMT-E.18	A.C sheet plain 4 mm thick	1 sqm	<b>146</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
122	BMT-E.19	A.C sheet plain 6 mm thick	1 sqm	152
123	BMT-E.20	Plain or Corrugated Galvanized iron sheets as per IS 277 (0.1 mm to 0.8 mm thickness)	1 kg	62
124	BMT-E.21	Supply of UV resistant multi-wall polycarbonate sheets for roofing of any colour - 6 mm thick	1 Sqm	1147
125	BMT-E.22	Aluminium universal glazing set 40 mm wide for jointing and fixing polycarbonate sheets	1 RM	109
126	BMT-E.23	Supply of UV resistant multi -wall polycarbonate sheets for roofing of any colour -10 mm thick.	1 Sqm	1300
	<b>F.SECTION</b>	<b>STEEL MATERIALS</b> (Landing cost – including loading, cost of conveyance, unloading)		
	<b>I.SUB-SECTION</b>	<b>MILD STEEL MATERIALS</b>		
127	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	3198
128	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	2798
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	1 Sqm	178

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.60 mm thick		
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.28	Rabbit wire mesh (chicken mesh) of not less than 30 gauge	1 Sqm	17
139	BMT-F.02	Country Nails	1 Kg	58
140	BMT-F.03	Wire Nails	1 Kg	58
141	BMT-F.04	Mild Steel Tubes & pipes of all diameters as per IS-1161	1 Kg	60
	<b>II.SUB-SECTION</b>	<b>GALVANIZED STEEL MATERIALS</b>		
142	BMT-F.07	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type A - IOWA Type Designation as per standard specification	1 Kg	81
143	BMT-F.08	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type B - Glidden Type Designation as per standard specification	1 Kg	79
144	BMT-F.18	Galvanized Iron fly proof wire mesh of not less than 20 gauge	1 Sqm	220
145	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
146	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
147	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	316
148	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	223
149	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	536
150	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	1 Sqm	445

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		x 63 mm) - 8 Gauge		
151	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	367
152	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	286
	<b>III.SUB-SECTION</b>	<b>STAINLESS STEEL MATERIALS</b>		
153	BMT-F.06	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & diameters for - 304 Grade	1 Kg	331
154	BMT-F.19	Stainless steel fly proof wire mesh of not less than 20 gauge	1 Sqm	446
155 to 163	BMT-F.32 A to H	<b>ITEM DELETED</b>		
	<b>Note: Items BMT-F.01 , BMT-F.31 are removed in the section F and are brought as new items in the Section N as BMT-N.80 and BMT-N.81.</b>			
	<b>G.SECTION</b>	<b>FIXTURES FOR DOORS &amp; WINDOWS</b>		
	<b>I.SUB-SECTION</b>	<b>TOWER BOLTS</b>		
164	BMT-G.01	Brass Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	150
165	BMT-G.02	Brass Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	231
166	BMT-G.03	Brass Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	317
167	BMT-G.04	Brass Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	365
168	BMT-G.05	Brass Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	449
169	BMT-G.06	Aluminium Tower Bolt-10 mm Bolt (IS:204) 75 mm Long	Each	56
170	BMT-G.07	Aluminium Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	69
171	BMT-G.08	Aluminium Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	84
172	BMT-G.09	Aluminium Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	103
173	BMT-G.10	Aluminium Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	124
174	BMT-G.11	Aluminium Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	144
175	BMT-G.12	Aluminium Tower Bolt-10 mm Bolt (IS:204) 350 mm Long	Each	387
176	BMT-G.13	Aluminium Tower Bolt-10 mm Bolt (IS:204) 450 mm Long	Each	490
177	BMT-G.14	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	24
178	BMT-G.15	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	35
179	BMT-G.16	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	51
180	BMT-G.17	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 250	Each	68

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		mm Long		
181	BMT-G.18	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	85
	<b>II.SUB-SECTION</b>	<b>HINGES</b>		
182	BMT-G.19	Brass Butt hinges (IS:205)- 75 mm Long	Each	67
183	BMT-G.20	Brass Butt hinges (IS:205)- 100 mm Long	Each	203
184	BMT-G.21	Brass Butt hinges (IS:205)- 125 mm Long	Each	246
185	BMT-G.22	Brass Butt hinges (IS:205)- 150 mm Long	Each	324
186	BMT-G.23	Aluminium Butt hinges (IS:205)- 75 mm Long	Each	81
187	BMT-G.24	Aluminium Butt hinges (IS:205)- 100 mm Long	Each	97
188	BMT-G.25	Aluminium Butt hinges (IS:205)- 125 mm Long	Each	117
189	BMT-G.26	Aluminium Butt hinges (IS:205)- 150 mm Long	Each	120
190	BMT-G.27	MS-Powder Coated Butt hinges (IS:205)- 75 mm Long	Each	11
191	BMT-G.28	MS-Powder Coated Butt hinges (IS:205)- 100 mm Long	Each	20
192	BMT-G.29	MS-Powder Coated Butt hinges (IS:205)- 125 mm Long	Each	31
193	BMT-G.30	MS-Powder Coated Butt hinges (IS:205)- 150 mm Long	Each	39
194	BMT-G.80	Providing and fixing <b>stainless steel (SS-304 grade)</b> friction hinges to the side/top hung uPVC windows, of approved quality, with necessary stainless steel screws etc. as per direction of Engineer-in-charge.		
195	BMT-G.80.A	200 x 19 x 1.9 mm	Each	270
196	BMT-G.80.B	250 x 19 x 1.9 mm	Each	300
197	BMT-G.80.C	300 x 19 x 1.9 mm	Each	317
198	BMT-G.80.D	350 x 19 x 1.9 mm	Each	438
199	BMT-G.80.E	400 x 19 x 1.9 mm	Each	461
	<b>III.SUB-SECTION</b>	<b>DOOR HANDLES</b>		
200	BMT-G.31	Aluminium Door Handles (IS:208) 75 mm Long	Each	54
201	BMT-G.32	Aluminium Door Handles (IS:208) 100 mm Long	Each	62
202	BMT-G.33	Aluminium Door Handles (IS:208) 125 mm Long	Each	92
203	BMT-G.34	Aluminium Door Handles (IS:208) 150 mm Long	Each	103
204	BMT-G.35	MS-Powder Coated Door Handles (IS:208) 125 mm Long	Each	32
205	BMT-G.36	MS-Powder Coated Door Handles (IS:208) 150 mm Long	Each	45
206	BMT-G.58	Brass fancy handles 150 mm	Each	299
207	BMT-G.59	Brass fancy handles 200 mm	Each	404
208	BMT-G.60	Brass fancy handles 250 mm	Each	728
209	BMT-G.61	Brass fancy handles 300 mm	Each	930

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
210	BMT-G.62	Brass fancy handles 450 mm	Each	1454
211	BMT-G.72	Keyless lockset for toilet doors with CP or PC knob handles (complete set)	Each	310
212	BMT-G.73	Keyless lock set for toilet doors with brass knob handles	Each	819
213	BMT-G.81	Providing and fixing casement handle made of zinc alloyed (white powder coated) for uPVC casement window with necessary screws etc.complete.	Each	187
	<b>IV..SUB-SECTION</b>	<b>ALDROPS</b>		
214	BMT-G.37	Brass Aldrop (IS:2681) 300 mm long	Each	1087
215	BMT-G.38	Brass Aldrop (IS:2681) 350 mm long	Each	2094
216	BMT-G.39	Brass Aldrop (IS:2681) 450 mm long	Each	2982
217	BMT-G.40	Aluminium Aldrop (IS:2681) 200 mm long	Each	240
218	BMT-G.41	Aluminium Aldrop (IS:2681) 250 mm long	Each	284
219	BMT-G.42	Aluminium Aldrop (IS:2681) 300 mm long	Each	308
220	BMT-G.43	MS-Powder Coated Aldrop (IS:2681) 200 mm long	Each	98
221	BMT-G.44	MS-Powder Coated Aldrop (IS:2681) 250 mm long	Each	129
222	BMT-G.45	MS-Powder Coated Aldrop (IS:2681) 300 mm long	Each	154
	<b>V..SUB-SECTION</b>	<b>LATCHES</b>		
223	BMT-G.48	Aluminium Flat Latches: 200 mm long	Each	117
224	BMT-G.49	Aluminium Flat Latches: 250 mm long	Each	131
225	BMT-G.50	Aluminium Flat Latches: 300 mm long	Each	144
226	BMT-G.51	MS-Powder Coated Flat Latches: 250 mm long	Each	55
227	BMT-G.52	MS-Powder Coated Flat Latches: 300 mm long	Each	70
228	BMT-G.68	Brass latch heavy 300 mm	Each	573
229	BMT-G.69	Brass latch heavy 350 mm	Each	658
230	BMT-G.70	Brass latch heavy 450 mm	Each	826
	<b>VI..SUB-SECTION</b>	<b>DOOR CLOSURES</b>		
231	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
232	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	1065
233	BMT-G.75	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double	Each	1197

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		speed adjustment with necessary accessories and screws etc. complete (Type-2: for width of doors 701 to 850 mm)		
234	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	1256
	<b>VII.SUB-SECTION</b>	<b>FLOOR SPRINGS</b>		
235	BMT-G.64	Double action Stainless steel cover plate and cast body iron floor spring (IS 6315- Table-1)	Each	1751
236	BMT-G.65	Double action Brass cover plate and cast brass body floor spring (IS 6315- Table-1)	Each	4153
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	3537
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	2555
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	10805
	<b>VIII</b>	<b>MORTICE LOCKS</b>		
240	BMT-G.66	Heavy duty mortise lock 6/7 levers (IS:2209) with PC or CP handles complete set	Each	792
241	BMT-G.67	Heavy duty mortise lock 6/7 levers (IS:2209) with brass heavy handles	Each	2036
	<b>IX.SUB-SECTION</b>	<b>OTHER ACCESSORIES</b>		
242	BMT-G.53	MS-Powder Coated - Door Stoppers	Each	45
243	BMT-G.57	Heavy duty Aluminium Door stopper	Each	53
244	BMT-G.46	Brass Door Stoppers	Each	168
245	BMT-G.71	Friction stay hinges for windows	Each	91
246	BMT-G.56	Deluxe window stay Aluminium	Each	122
247	BMT-G.47	Brass Windows Stay	Each	181
248	BMT-G.54	Supply & fixing drapery rods (25.4 mm) 1" x 21 G Powder coated with PVC rings	RM	108
249	BMT-G.55	Supply & fixing drapery bracket - brass powder coated	pair	402

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
250	BMT-G.82	Providing and fixing zinc alloyed (white powder coated) touch lock for uPVC sliding window with necessary screws etc. Complete	Each	154
251	BMT-G.83	Providing and fixing steel roller for uPVC sliding window with necessary screws etc. complete.	Each	88
252	BMT-G.84	Providing and fixing steel roller for uPVC sliding door with necessary screws etc. complete.	Each	140
253	BMT-G.85	Providing and fixing steel (white power coated) crescent lock for uPVC sliding window/ door with necessary screws etc. complete.	Each	167
	<b>H.SECTION</b>	<b>WATER PROOFING CHEMICALS &amp; ADMIXTURES</b> <i>Literature for usage / application of construction / water proofing materials, epoxies etc, may be obtained from manufacturers.</i>		
<b>254 to 318</b>	<b>BMT-H.01 to 65</b>	<b>ITEMS DELETED</b>		
319	BMT-H. 66	Pre construction Anti termite is a process in which chemical toxic to subterrean 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 <b>BIS - IS 6313 (Part -2) 2013</b> code specification & CIB RC registered termiticide which creates a continuous chemical barrier beneath the building which kills or repels terminates & impervious to tremite entry	1 Sqm	<b>150</b>
		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 columes , 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 coulmsns & 300mm deep around plinth beams, basements & floor filling area including excavation channel along the wall & rodding etc. <b>cost &amp; Conveyance of all 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</b>		
320	BMT-H. 67	<b>ITEM DELETED</b>		
	<b>I.SUB-SECTION</b>	<b>REPAIRING AND TREATMENT WORKS</b>		
	BMT-H.68	<b>SURFACE PREPARATION</b>		
		<b>Cleaning of the surface : For Waterproofing treatment</b>		
321	BMT-H.68.A	If the surface is sound & hard Condition, the surface must	Sqm	<b>60</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		be clean and sound duly removing of exisiting tretaments clean from dirt, dust and other contaminations by power grinding wire brushing , air blower & jet water cleaing.		
322	BMT-H.68.B	If the surface is detoriated or damage / existing tiles or block laying Chipping with pneumatic power chiseling equipment and until to ahcieve the hard mother concrete surface. Duly removing of debris, cleaning of the surface from dirt, dust and other foreign matters & water jet cleaning.	Sqm	150
323	BMT-H.68.C	if the surface has existing damaged bituminous felt / APP membrane. Chipping and removing of existing bituminous tarfelt / membrane with chiseling equipments, grinding / wire brusing the surface duly removing the felt completely. Duly removing of debris, cleaning of the surface from dirt, dust and other foreign matters & water jet cleaning.	Sqm	100
		<b>SPECIALISED CHEMICAL WATERPROOFING TREATMENTS FOR TERRACE</b>		
		<b>WHEREVER FLOORING SURFACE IS HAVING MAJOR HAIR LINE CRACKS DEVELOPED, SEVERE LEAKAGES TAKEN PLACE AND REQUIRED TO REDUCE THE ROOM TEMPERATURES - SELF ASSESSED TREATMENTS TO IDENTIFY EACH LAYER OF TREATMENTS : REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS Item Code BMT-H.68 SURFACE PREPARATION SUB HEADING : CLEANING OF THE SURFACE FOR WATERPROOFING TREATMENT.</b>		
324	BMT-H.69	SPECIALISED FIVE LAYER SYSTEM OF WATERPROOFING TREATMENT TO THE TERRACE WITH Roofcare-prc 5 Systems or equivalent ( ROOFCARE PRC 5 (Armstrong) / ZORICOAT PFC 5 (PMCC)/ POWER SAC 5 L (EBT)/ WATERSHIELD 5 LWC  a). Ist Layer Black coloured chemcial treatment : Providing and application of one coat of High bonding, flexible bituminous polyurethane blended bituminous coating with – Roofcare prc 5 systems Confiming to ASTM-G 154 -2000 or equavalent Ist Layer diluting with water at 1 : 1 ratio as a primer coat at a consumption of 200ml per Sqm. b). IInd Layer : Providing and laying of Fibre Mesh 40 GSM, with 1 Mtr width and 50mm overlap on the primed surface. c). IIIrd Layer Grey coloured coating : Providing and application of one coat of Acrylic rubberized elastomeric flexible waterproof grey coating with – Roofcare prc 5 systems ASTM-C 836 or equivalent or equivalent diluting with 50% of water at a consumption of 400ml per Sqm. d) IVth Layer white colured coating : Providing and application of one coat of High solid, cold applied, Fibre reinforced acrylic elastomeric waterproof membrane off white coating –Roofcare prc 5 systems Confiming to ASTM-	Sqm	570

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		G 154 -2000 or equivalent coating (add the water upto 200ml ) (Consumption of 350ml per Sqm ). e) Vth Layer super white reflective coating : Application of one coat of 100% pure acrylic solar reflective pure white coating with Roofcareprc 5 systems Confirming to ASTM -C 297 or equivalent solar reflective coating diluting with 20% of water (Consumption of 300ml per Sqm ). Note : THE ABOVE TREATMENT WILL BE GUARANTEED FOR 5 YEARS		
		<b>WHEREVER FLOORING SURFACE IS HAVING HAIR LINE CRACKS DEVELOPED, SEVERE LEAKAGES AND FOUND VERY SLIGHTLY MORTAR DEBONDED WITH ORIGINAL SLAB - TAKEN PLACE : REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS RAINSEAL FRC SPECIALISED HIGH STRENGTH FIBRE REINFORCED ACRYLIC ELASTOMERIC AND HEAT RESISTANT LIQUID MEMBRANE COATING CHEMICALS Confirmed ASTM C 836/89A &amp; ASTM C 297 FOR TERRACE.</b>		
325	BMT-H.70	SPECIALISED HIGH STRENGTH CELLULOSE FIBRE REINFORCED ACRYLIC ELASTOMERIC LIQUID MEMBRANE COATING FOR TERRACE : a). Providing and application of one coat of High Solid, Cold applied Acrylic Elastomeric Liquid Membrane Coating with – RAINSEAL (Armstrong )/ POWER n COAT EWC (EBT) / DECKGUARD E 2000 (Fosroc) /ZORICOAT EWC (PMCC) / SIKAGARD 550 W / WATERSHIELD EWC 600 diluting with water at 1 : 0.50 ratio as a primer coat at a consumption of 200ml per Sqm. b). Providing and laying of Non woven polyester reinforced fibre mesh of 40 GSM, with 1 Mtr width and 50mm overlap on the primed surface.  c) Providing and application of one coat of High strength cellulose fibre reinforced Acrylic Elastomeric Liquid Membrane coating with -RAINSEAL CFR (Armstrong / ZORICOAT CF (PMCC) / POWER n COAT CR (EBT) WATERSHIELD FLEX CR / FIBRE REINFORCED ACRYLIC ELASTOMERIC COATINGS (Fosroc ) diluting with water at 20% as a base coat application at a consumption of 400ml per Sqm.	Sqm	<b>510</b>
		<b>WHEREVER FLOORING SURFACE IS HAVING HAIR LINE CRACKS DEVELOPED, SEVERE LEAKAGES AND FOUND SOME PLACES MORTAR DEBONDED WITH ORIGINAL SLAB - TAKEN PLACE : REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS BMT-H.68 © and BMT-H.83 chemical complies with ASTM C 297.</b>		
326	BMT-H.71	SPECIALISED HIGH PERFORMANCE ACRYLIC POLYMER MODIFIED ELASTOMERIC CEMENTITIOUS	Sqm	<b>490</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<p>WATERPROOF COATING TO THE TERRACE</p> <p>a). Providing and application of one coat of High performance Acrylate penetrative water barrier primer – ROOFBOND BCS (Armstrong) / ZORIBOND BCS (PMCC) / POWER n PENETRATE (EBT) / WATERSHIELD CP / DECKGUARD CP (Fosroc) /SIKAGARD 705 L (Sika) diluting with water at 1 : 0.50 ratio as a primer coat at a consumption of 200ml per Sqm.</p> <p>b). Providing and laying of Non woven polyster reinforced fibre mesh of 40 GSM, with 1 Mtr width and 50mm overlap on the primed surface.</p> <p>c) Providing and application of one coat of Two part system of high performance acrylic polymer modified elastomeric cementitious waterproof coating ROOFBOND RFX (Armstrong) /POWER n COAT RFX (EBT) / BRUSHBOND RFX (Fosroc)/ZORIBOND RFX (PMCC) / WATERSHIELD RFX /SIKAGARD 550 U 2K (Sika) mixing of powder and liquid as per packing at 1:2 ratio. (add the water upto 200ml ) at a consumption rate of 300 Grams mix.</p> <p>d). Providing and application of one coat of Two parts system fibre Reinforced Acrylic Cementitious Coatings with –ROOFBOND FRC (Armstrong) ZORIBOND FRC ( PMCC) / POWER n BOND FRC (EBT)/ WATERSHIELD BOND FR / Fosroc mixing of powder and liquid as per packing at 1:2 ratio (add the water upto 200ml ) at a consumption rate of 300 Grams mix.</p>		
327	BMT-H.72	<p><i>WHEREVER FLOORING SURFACE IS HAVING MAJOR HAIR LINE CRACKS DEVELOPED, SEVERE LEAKAGES TAKEN PLACE AND REQUIRED TO REDUCE THE ROOM TEMPERATURES - SELF ASSESSED TREATMENTS TO IDENTIFY EACH LAYER OF TREATMENTS : REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS</i></p>	Sqm	<b>540</b>
		<p>a). Providing and application of one coat of High bonding, flexible bituminous polyurethane blended black coating with ROOFCARE PU (Armstrong) /POWER n COAT PU (EBT) / NITOBOND POLYURETHANE BLENDED BITUMEN COAT (Fosroc) /ZORICOAT PU (PMCC)/SIKALASTIC 450 L/WATERSHIELD ELASTIC 450 PU (Polyurethane blended Bituminous waterproof coating system) Complies with ASTM 836 - DN 1048 diluting with water at 1 : 1 ratio as a primer coat at a consumption of 200ml per Sqm.</p> <p>b). Providing and laying of Non woven GEO Fabric 40 GSM, with 1 Mtr width and 50mm overlap on the primed surface.</p> <p>c). Providing and application of one coat of Acrylic rubberized elastomeric flexible waterproof grey coating with –RAINSEAL RWC 902 (Armstrong) / POWER n COAT RC /</p>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<p>ZORICOAT RC(PMCC) / (Fosroc) / WATERSHIELD RC FLEX Complies with ASTM G 154 -2000 diluting with 50% of water at a consumption of 400ml per Sqm.</p> <p>d) Providing and application of one coat of High solid, cold applied, Fibre reinforced acrylic elastomeric waterproof membrane off white coating –ROOFcoat FRC (Armstrong) / ZORCOAT FC (PMCC) / POWER n FRX 2 (EBT) / WATERSHIELD FRC / DECKGUARD FRC (Fosroc) Complies with ASTM C 297 (add the water upto 200ml) (Consumption of 350ml per Sqm).</p> <p>e) Application of one coat of 100% pure acrylic solar reflective pure white coating with - ROOFCARE COOL (Insulator) / POWER n COOL (EBT) / BRUSHBOND COOL COAT (Fosroc)/ZORISHIELD XL (PMCC) / SIKA COOL COAT (Sika) //WATERSHIELD COOL COAT diluting with 20% of water ( Consumption of 300ml per Sqm ).</p>		
		<b>FOR WATERPROOFING OF PORTABLE WATER TANKS / RESERVOIRS / SUMP/ TERRACE / SIDE WALLS : REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS</b>		
328	BMT-H.73	<p>SPECIALISED ACRYLIC CEMENTITIOUS ELASTOMERIC WATERPROOF COATING TREATMENT Complies with ASTM C 297 :</p> <p>Providing and Application of two coats of Acrylic cementitious elastomeric waterproof coating with- Roofcoat or equivalent like high elastomeric acrylic polymer modified cementitious waterproof system.</p>	Sqm	<b>350</b>
		<b>FOR WATERPROOFING OF TERRACE / SIDE WALLS : REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS</b>		
329	BMT-H.74	<p>SPECIALISED ACRYLIC CEMENTITIOUS ELASTOMERIC WATERPROOF COATING TREATMENT Complies with ASTM C 297 :</p> <p>Providing and Application of two coats of Acrylic cementitious elastomeric waterproof coating with - ROOFcoat (Armstrong) POWER n COAT (EBT)/ BRUSHBOND (Fosroc) ZORICOAT (PMCC)/SIKA TOPSEAL 107 (Sika) / WATERSHIELD COAT PC like high elastomeric acrylic polymer modified cementitious waterproof system.</p>	Sqm	<b>390</b>
		<p>WHEREVER HIGH FLEXIBLE HIGH BONDED NECESSARY FOR WATERPROOFING OF TERRACE / SLOPED ROOFS / ACC SHEETS etc., FOR A GUARANTEE OF 5 YEARS REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS</p>		
330	BMT-H.75	<p>SPECIALISED HIGH SOLID, COLD APPLIED, ACRYLIC WATERPROOF COATING TO THE EXTERNAL WALLS Acrylic elastomeric waterproof exterior coatings Complies with ASTM C 836 / 89 A :</p>	Sqm	<b>390</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		Providing and application of two coats of High solid, cold applied, Acrylic Elastomeric Liquid Membrane Coating with – RAINSEAL (Armstrong )/ POWER n COAT EWC (EBT) / DECKGUARD E 2000 (Fosroc) /ZORICOAT EWC (PMCC) / SIKAGARD 550 W / WATERSHIELD EWC 600diluting with 20% of water mixing with required colour stainers.		
		<i>WHEREVER REQUIRED FOR WATERPROOFING OF TERRACE / SLOPED ROOFS / ACC SHEETS etc., FOR A GUARANTEE OF 3 YEARS REFER THE RATES FOR CLEANING AND CRACK FILLING UNDER THE HEAD OF THE WORKS</i>		
331	BMT-H.76	<b>SPECIALISED HIGH BONDING, FLEXIBLE BITUMINOUS POLYURETHANE BLENDED BITUMINOUS COATING</b> Complies with ASTM C 836 - DN 1048 :  <b>Providng and application of two coats of High bonding, flexible bituminous polyurethane blended bituminous coating with ROOFCARE PU (Armstrong ) / POWER n COAT PU (EBT) / NITOBOND POLYURETHANE BLENDED BITUMEN COAT (Fosroc)/ ZORICOAT PU (PMCC)/ SIKALASTIC 450 L / WATERSHIELD ELASTIC 450 PU diluting with 20% of water.</b>	Sqm	<b>360</b>
		<b>EXPANSION JOINT TREATMENT :</b>		
332	BMT-H.77	Prepration of the surface : For existing expansion joint treatment :  Chipping of the exisiting treatments over the expansion joints concrete / brick masonry with pneumatic power chiseling equipment and until to ahcieve the hard mother concrete surface. Chipping and removing of existing bituminous mastic boad upto 25mm deep. Duly removing of debris, cleaning of the surface from dirt, dust and other foreign matters	RMT	<b>250</b>
333	BMT-H.78	<b>SPECIALISED POLYSULPHIDE SEALANT TREATMENT TO THE EXPANSION JOINTS ON TERRACE :</b> (Size : 25mm x 12mm)  Application of one coat of-High performance specially designed SBR latex polymer based bonding agent–ROOFBOND SBR (Armstrong) / POWER n BOND SBR (EBT) / NITOBOND SBR (Fosroc)ZORIBOND SBR (PMCC)/ SIKA LATEX (Sika) WATERSHIELD BOND SBR ASTM - C 920 -95 /DIN 18549 TT -S-00227E or equivalent mixing with cement as per manufacturers c]. Providing and application of Acrylic Polymer modified reinstatement concrete/mortar admixture with - ROOFCRETE AR (Armstrong ) / ZORIGROUT CMG (PMCC) / POWER n GUARD ARM (EBT) / WATERSHIELD AR / Fosroc to finish the damaged edges of joint and making the groove. d]. Providing and fixing of masking tape	RMT	<b>650</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		on top of the joint both sides. e]. Providing and fixing of Back up support material of Polyethelene foam to leave the depth of 12mm on the joint. f]. Providing and application of one coat of polysulphide primer with – Polysulphide primer on inner edge on joints. g]. Providing and application of Two part Polysulphide sealant to a width of 25mm and 12mm depth with - ROOFSEAL PS (Armstrong ) / POWER n SEAL PS (EBT) /NITOSEAL PS 200 (Fosroc)/ ZORISEAL PS (PMCC) / SIKa POLYSULPHIDE (Sika) / WATERSHIELD PSComplies with BS 4254 - 83 or equivalent with putty knife and neat finish. h]. Removing of masking tape and providing and application of two coats of Acrylic elastomeric cementitious coating with - ROOFSEAL PS (Armstrong ) / POWER n SEAL PS (EBT) /NITOSEAL PS 200 (Fosroc)/ ZORISEAL PS (PMCC) / SIKa POLYSULPHIDE (Sika) / WATERSHIELD PS		
		FOR ARRESTING WATER FLOW LEAKAGES, LEAKAGES OF CONSTRUCTION JOINTS OF RESERVOIRS / PUMP ROOMS / POWER HOUSE / PENSTOCK / CANAL DUCTS AND OTHER WATER RETAINING STRUCTURES EXECUTION IN THE PRESENCE OF WATER.		
334	BMT-H.79	<p>LABOUR CHARGES FOR SPECIALISED EXPANSIVE ACQUA–REACTIVE WATER BARRIER GROUTING</p> <p>(1). Drilling of holes with Electrical Drilling machine up to the required depth i.e., (12mm to 14mm dia sized holes)</p> <p>(2). Fixing of pressure retaining aluminum / steel packers fixing with Instant setting leakproof plugging compound WONDERSEAL PLUG (Armstrong ) / POWER n PLUG (EBT) / RENDROC PLUG (Fosroc) /ZORIPLUG (PMCC / SIKa PLUG (Sika) WATERSHIELD PLUG</p> <p>(3). Grouting of holes with Air Compressed Injection equipment with single component aliphatic polyurethane grout compound- RAPIDSTRONG GROUT PU (Armstrong ) POWER n GROUT PU (EBT)/NITOFIL UR 60 WS 63 ( Fosroc ) / ZORIGROUT PU (PMCC)/ WATERSHIELD GROUT PU</p> <p>(4). After removing the pipes sealing of the holes with polymer putty – ROOFCRETE AR SYSTEMS (Armstrong ) / ZORIGROUT CMG (PMCC) / POWER n GUARD ARM (EBT) / WATERSHIELD AR / Fosroc with Cement.</p>	Each	<b>250</b>
335	BMT-H.80	Supply of chemicals for specialised expansive aqua reactive water barrier grout - RAPIDSTRONG GROUT PU (Armstrong ) POWER n GROUT PU (EBT)/NITOFIL UR 60 WS 63 ( Fosroc ) / ZORIGROUT PU (PMCC)/ WATERSHIELD GROUT PU	Kg	<b>1500</b>
		<b>FOR STRENGTHENING AND SEAL THE POROSITY OF THE CONCRETE TO ARREST THE LEAKAGES, DAMPNES , LEAKAGES OF CONSTRUCTION JOINTS</b>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<b>FOR TERRACE / CEILING / RCC RETAINING WALLS / BASEMENT FLOORINGS / WATER TANKS / RESERVOIRS / TOILETS etc.,</b>		
336	BMT-H.81	<p><b>SPECIALISED INJECTION GROUTING WITH CEMENT AND FREE FLOW ADDITIVES :</b></p> <p>a]. Drilling of holes with power drilling machine to the required depth [12mm to 14mm dia holes]</p> <p>b]. Fixing of Rubber Nozzles with cement and quick setting, Rapid hardening compound putty - Rapidstrong qs or equivalent.</p> <p>c]. Grouting of holes with 140 PSI Grout pump with cement slurry mixing with Specialized Free flow, Non-shrink Grout additive - RAPIDSTRONG GROUT ADMIX (Armstrong ) /POWER n GROUT ADMIX (EBT) / CEBEX 100 (Fosroc )/ ZORIGROUT GP1 (PMCC) / SIKAGROUT ANCHKOR NSQ (Sika) /WATERSHIELD GROUT ADMIXi.e., 250 Grams per bag of 50 Kgs Cement add required water to make slurry form.</p> <p>d]. After completion of grouting, Remove the Rubber nozzles</p> <p>e]. Later sealing of the hole with polymer cement putty - ROOFCRETE AR (Armstrong ) / ZORIGROUT CMG (PMCC) / POWER n GUARD ARM (EBT) / WATERSHIELD AR / Fosroc NITOBOND AR + Cement.</p>	Each	<b>150</b>
		<p><b>FOR STRENGTHENING AND SEAL THE POROSITY OF THE CONCRETE TO ARREST THE LEAKAGES, DAMPNES , LEAKAGES OF ONSTRUCTION JOINTS :</b></p> <p><b>( FOR TERRACE /CEILING / RCC RETAINING WALLS / BASEMENT FLOORINGS / WATER TANKS / RESERVOIRS / TOILETS etc., )</b></p>		
337	BMT-H.82	<p><b>SPECIALISED INJECTION GROUTING WITH CEMENT AND CRYSTALLIZATION ADMIXTURES :</b></p> <p>a]. Drilling of holes with power drilling machine to the required depth [12mm to 14mm dia holes]</p> <p>b]. Fixing of Rubber Nozzles with cement and quick setting, Rapid hardening compound putty Rapidstrong qs or equivalent</p> <p>c]. Grouting of holes with 140 PSI Grout pump with cement slurry mixing with Specialized crystallization compound-Roofex gp or equivalent @ 5% by weight of cement.</p> <p>d]. After completion of grouting, Remove the Rubber nozzles</p> <p>e]. Later sealing of the hole with polymer cement putty- ROOFCRETE AR (Armstrong ) / ZORIGROUT CMG (PMCC) / POWER n GUARD ARM (EBT) / WATERSHIELD AR / Fosroc NITOBOND AR + Cement</p>	Each	<b>225</b>
		<b>CRACKS AT TERRACE / BEAM &amp; WALLS JUNCTIONS - SEALING THE JOINTS WITH POLYURETHANE SEALANT :</b>		
338	BMT-H.83	<b>SPECIALISED POLYURETHANE SEALANT TREATMENT :</b>	RMT	<b>330</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		a). Making "U" Groove (width and depth of 6mm x 6mm) b). Filling of the groove with polyurethane sealant – ROOFSEAL PU (Armstrong ) / POWER n SEAL PU (EBT) / THIOFLEX 600 (Fosroc) / ZORISEAL PU (PMCC) / SIKAFLEX PRO -3 WF (Sika ) WATERSHIELD PU 3		
		CRACKS AT INTERNAL / EXTERNAL WALLS - SEALING THE CRACKS WITH ACRYLIC CAULKING COMPOUND		
339	BMT-H.84	SPECIALISED ACRYLIC CAULKING SEALANT TREATMENT : a). Making "U" Groove (width and depth of 6mm x 6mm) b). Filling of the groove with Acrylic caulking compound - WONDERSEAL XL (Armstrong ) / POWER n SEAL XL (EBT) / NITOSEAL (Fosroc) / WATERSHIELD XL /ZORISEAL XL LATEX (PMCC)	RMT	180
	<b>II.SUB-SECTION</b>	<b>INTERGRAL WATERPROOFING COMPOUND</b>		
340	BMT-H.85	Integral Cement Waterproofing Admixture for Concrete Slabs and mortar plastering works. ( Dosage : 100ml Per bag of 50 Kgs Cement) Complies with I.S. 2645-2003	1 Ltr	190
341	BMT-H.86	Liquid Concentrated Micronized Cement waterproofing compound For Slabs, mortar plastering and water retained structures. (Dosage : 500ml per bag of 50 Kgs Cement ) Complies with I.S. 2645-2003	1 Ltr	120
	<b>III.SUB-SECTION</b>	<b>PLASTICIZERS AND WATER REDUCING AGENT</b>		
342	BMT-H.87	Concrete plasticizers and Water reducing admixture (not air entraining agent ) (Dosage : 15-20ml per bag of 50 Kgs Cement )- Complies with I.S. 9103-99 Ideal to use as concrete admixture for workability retention of slump and control water cement ratio of M 20 + grade concrete for slabs /roads works and other concrete works	1 Ltr	200
		<b>SUPER PLASTICIZERS AND WATER REDUCING CONCRETE ADMIXTURES</b>		
343	BMT-H.88	Super plasticizer and water reducing concrete admixture base on Ligno Sulphide Complies with IS 9103 & ASTM C 494 (Dosage : 200ml to 300ml per bag of 50 Kgs Cement )  For M25 + grade concrete works like Road Projects / Canal linings/ Dams / Reservoirs / Building's concrete works.	1 Ltr	70
344	BMT-H.89	High performance super plasticizer and water reducing admixture based on lignosulphide and naphthalene blended Complies with 9103/4-99 (Dosage : 300ml to 500ml Per Bag of 50 Kgs Cement ) For M30+ grade concrete works like Road Projects / Canal linings/ Dams / Reservoirs / Building's concrete works.	1 Kg	75
345	BMT-H.90	High performance super plasticizer and water reducing	1 Kg	80

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		admixture based on naphthalene blended Complies with 9103/4-99 (Dosage : 300ml to 500ml Per Bag of 50 Kgs Cement ) For M40+ grade concrete Works like road projects / Canal linings / Dams / Reservoirs / Building's concrete works		
		<b>SELF COMPACTING CONCRETE ADMIXTURES</b>		
346	BMT-H.91	High strength super plasticizers and water reducing agent based on polycarboxylic technology. Complies with IS 9103/ASTM C 494 ( 300ml to 1 Ltr Per Bag of 50 Kgs Cement ) For M-40+ + concrete structures in coastal areas, for early high strength.	1 Kg	110
		<b>RETARDING ADMIXTURES</b>		
347	BMT-H.92	Super plasticizer, high range water reducing and retarding concrete admixture of naphthalene blended. ( Complies with 9103-99 ) (Dosage : 300ml to 500ml Per bag of 50 Kgs Cement ) For delaying of initial setting time and M 40+ Grade concrete works.	1 Kg	85
		<b>CORROSION INHIBITOR ADMIXTURE</b>		
348	BMT-H.93	High strength super plasticizer and corrosion inhibitor for concrete (Complies with IS 9103-99 & EN 1504-9 Method 11.3) (Dosage : 200ml to 500ml Per Bag of 50 Kgs Cement) For Concreting under extreme corrosion effected areas / coastal areas / industrial constructions to protect the steel reinforcement. Anti Corrosion and leak proof Crack Proof,Water Proof, Concrete Hardener Admixture liquid.	1 Kg	95
		<b>AIR ENTRAINING AGENT</b>		
349	BMT-H.94	Hi-power concentrated Air Entraining, Plasticizing & Water reducing compound Complies with IS 9103-99 & ASTM C 260 (Dosage 20ml per bag of 50 Kgs Cement) Ideal to use for the construction of Bridges, Barrages, Dams, Tunnels, Piles, Foundations, Towers etc.,	1 Ltr	160
350	BMT-H.95	Two component High Power Polyester Resin Anchor Grout Compound Complies with ASTM-827 /SNF.CRDC-621 (Yield 0.5 Ltrs / 1 Kg Pack ) For Anchoring / fix the steel bars into the rocks, concrete for foundations, extension of concrete.	1 Kg	325
	<b>IV. SUB-SECTION</b>	<b>GROUTS</b>		
351	BMT-H.96	Non-shrink Free flow high strength precision grout Complies with BS 1881 Part 1161983. For machinery / thin sections of concrete joints Filling.	1 Kg	34

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
352	BMT-H.97	Low viscosity Epoxy resin injection grout -Two parts system. Complies with BS 6920 / ASTM 881-78 (Density 1.07 Kg Per Ltr ) For Structural strengthening, filling of honey comb / voids in the concrete.	1 Kg	800
353	BMT-H.98	Non-shrink, free flow, high strength grout admixture Dosage : 250 Grams Per Bag of 50 Kgs Cement. (Complies with B.S.1881 Part 1161983 )	1 Kg	60
354	BMT-H.99	High performrance, High build expansive acqua-reactive water barrier polyurethane grout.	1 Kg	1500
	<b>V. SUB-SECTION</b>	<b>BONDING AGENTS</b>		
355	BMT-H.100	Acrylic based bonding adhesive (Mix: 1:1 ratio of cement ) Coverage : 50 SFT/Ltr/Coat Depending on the substrate On terrace old concrete to new mortar / screed.	1 Ltr	150
356	BMT-H.101	Styrene butadiene rubber based bonding agent for mortar/ concrete (Mix: 1:1 ratio of cement ) For ceiling / concrete repairs and bonding. Coverage : 50 SFT/Ltr/Coat Depending on the substrate	1 Ltr	450
357	BMT-H.102	Structural element concrete bonding agent old to new concrete epoxy bonding agent : (Two Parts system of Epoxy Bonding adhesive ) Complies with ASTM-C 881 Coverage : 20 – 25 SFT / Kg /Coat For Structural concrete repairs / bonding.	1 Kg	870
	<b>VI. SUB-SECTION</b>	<b>SEALANTS</b>		
358	BMT-H.103	Single component polyurethane sealant (Gungrade/ Pour Grade) Complis with : ASTM C 920 -95 Type S / Grade NS, Class 25, and BS ; 5212 Ideal to use for Filling of runways / buildings, expansion joints, construction joints, Terrace Cracks, Sealing joints at doors, windows, facades, frames, crack etc.,	600ml	470
359	BMT-H.104	Two part polysulphide sealant (Gun / Pour Grade) Complies with ASTM C 920 - 95 / DIN 18549 TT - 5 - 00227 E/BS 4254 -83 Ideal to use for Expansion / construction joints of runways, buildings etc.,	1 Kg	410
360	BMT-H.105	Acrylic Latex Caulking Compound Complies ASTM-C-834-91 Ideal for exterior and interior crack filling works, Excellent bonding strength to adjoining surface.	1 Kg	304
	<b>VII. SUB-SECTION</b>	<b>PROTECTIVE WATERPROOF COATINGS / CEMENT BASED COATINGS :</b>		
361	BMT-H.106	Two component sysem High durable cementitious acrylic based waterproofing systems : Complies with ASTM D	1 Ltr	134

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		4541 / BS EN 12390 / DN 1048 ( 2 to 3 Sqm in two coats ) For Terrace, Water Tanks, Walls Waterproof Coatings of Two Part System.		
362	BMT-H.107	Acrylic Polymer Elastomeric Cementitious Waterproof Coatings Surface treatments for Terrace, Water Tanks, Walls, Reservoirs Waterproofing Coatings.Complies with ASTM D4541 / BS EN 12390. (Coverage :50 to 60 SFT / Ltr / coat)	1 Ltr	350
		<b>PURE ACRYLIC ELASTOMERIC COATINGS</b>		
363	BMT-H.108	Single component, High solid, cold applied, Acrylic elastomeric waterproof membrane coating Complies with ASTM C 836 / 89A & ASTM C 297 (Coverage : 50 to 60 SFT Per/Ltr/Coat) Wherever highly flexible, crack Bridging,waterproofing required for Terrace, Walls Highly Flexible Waterproof Liquid Membrane pure Acrylic Coatings. (for brush / spray application add 20% water per Ltr )	1 Ltr	425
364	BMT-H.109	Rubberized elastomeric flexible waterproof coating Complies with ASTM 836 / 89 A & ASTM C 297 Coveage : 40 to 50 SFT / Ltr / coat (for brush / spray application add 20% water per Ltr )	1 Ltr	300
		<b>BITUMINOUS COATING</b>		
365	BMT-H.110	Polyurethane blended Bituminous waterproof coating system - Complies with ASTM C 836 /D 638 / DIN - 1048 / ASTM D 1004 - 76 ( Coverage :40 to 50 SFT / Kg / coat ) Ideal to use as waterproof of RCC substrates, Roofs, Sloped roofs, Basements. Provides jointless and seamless membrane waterproofing. (for brush / spray application add 20% water per Ltr )	1 Kg	570
366	BMT-H.111	High Performance Acrylic blended Bituminous waterproof coating systems. Complies with ASTM C 836 ( Coverage : 40 to 50 SFT / Ltr / coat ) (for brush / spray application add 20% water per Ltr )	1 Kg	350
		<b>SOLAR REFLECTIVE COATING</b>		
367	BMT-H.112	Pure Acrylic Solar Reflective insulator coating Complies with ASTM - G - 154 : 2000 & ASTM E 903 / EN 1062 - 3 requirement of EN 1504 / 2 : EN 1062 -6 Coverage : 15 SFT / Ltr / 3 Coats (for brush / spray application add 20% water per Ltr	1 Ltr	200
		<b>EPOXY COATINGS</b>		
368	BMT-H.113	Two component Water thinnable Food Neutral Epoxy coating (Complies with ASTM - C- 881 / EN 13813 ) Coverage : 70 to 80 SFT per Ltr / coat Ideal to use as internal coatings for potable water tanks, reservoirs, sumps and walls. Part - I 1 Kg : Part -II 1/2 Kg dilute with 1 Ltr of water	1 Kg	425

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<b>POLYURETHANE COATING</b>		
369	BMT-H.114	Single component cold applied polyurethane waterproof coating - Complies with ASTM 836 / EN 1062-3 requirement of EN 1504 - 2 Coverage : 300 Grams Per coat / Sqm. brush / spray application add 20% water per Ltr	1 Kg	400
	<b>VIII. SUB-SECTION</b>	<b>ANTI CORROSIVE AGENTS</b>		
370	BMT-H.115	Acrylic based Anti corrosive coating To protect the exposed reinforcement/steel structures against corrosion. Coverage : 40 SFT Per Ltr / Coat.	1 Ltr	350
371	BMT-H.116	Rust converter–rust encapsulating coating for steel During repairs to protect, to convert the rust of reinforcement / steel. Coverage : 50 SFT Per Ltr / Coat	1 Ltr	480
372	BMT-H.117	High range zinc rich epoxy resin primer for reinforcement steel protection against corrosion. Coverage : 4 Sq.Mtr. /Ltr / Coat	1 Kg	475
	<b>IX. SUB-SECTION</b>	<b>CURING COMPOUND&amp;MISCELLANEOUS CHEMICALS</b>		
373	BMT-H.118	Acrylic blended water based concrete curing compounds Complies with ASTM - C - 309 Class - A Types I & II Coverage : 3.5 to 4 Sqm / Kg / Coat	1 Kg	60
		<b>CONCRETE REPAIR ADMIXTURES</b>		
374	BMT-H.119	Acrylic polymer modified reinstatement concrete /mortar admixture Dosage : 1 to 2 Ltrs Per Bag of 50 Kgs Cement can be mixed with required aggregates  To achieve trusted High Strength Concreting / Structural rehabilitation / concrete repairs.	1 Ltr	450
		<b>CRYSTALLIZATION COMPOUND</b>		
375	BMT-H.120	Concrete waterproofing with crystallization system by blocking inner pours and cavities of concrete. Coverage : 1.25 Kg per Sqm / Coat For Negative Water Pressure Treatments like Cellar / Ceiling areas etc.,	1 Kg	360
		<b>PLUGGING COMPOUND</b>		
376	BMT-H.121	Fast setting cement based plugging compound. To arrest water flow leakages.  (Powder Form :mix with water direct application	1 Kg	85
		<b>SHOTCRETE / GUNITING ADMIXTURE</b>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
377	BMT-H.122	Set Accelerator for sprayed concrete and plasticizer Complies with IS 9103-99 / ASTM C 494 Type C / BS 5075 Dosage : 1 Kg to 3 Kgs per Bag of 50 Kgs Cement Depend on setting time required For shotcrete / Guniting / Emergency concrete works	1 Kg	85
378	BMT-H.123	Quick setting, rapid hardening and water proofing compound Complies with ASTM C 494 Type C / IS 9103 - 99 & BS 5075. Dosage : 1 Kg to 3 Kgs Per Bag of 50 Kgs Cement Depend on setting time For emergency works/Anti wash and under water concreting.	1 Ltr	80
		<b>MICRO CONCRETE</b>		
379	BMT-H.124	High strength non-shrink cementitious micro concrete	1 Kg	38
		<b>TILE ADHESIVES / GROUTS</b>		
380	BMT-H.125	Tile Adhesive. Confirms to IS 15477-2004 for both type I & II / BS : EN 12004 CTT adhesive. For excellence adhesion, improved workability waterproof and also heat resistant tile fixing adhesive. At 3mm thickness 65-70 SFT	1 Kg	55
381	BMT-H.126	Three component system epoxy grout for Vitrified tiles, Ceramic tiles and stones B.S. 5980 : 1980 / BS EN 120004, R 2 T. Depends upon tile dimension and grout width	1 Kg	690
382	BMT-H.127	Polymer Modified Tile Grout Complies with BS EN 13888, CG 2AW 4 - 4.5 Sqm / Kg of 150 mm x 150mm tile size mix 1 Part Water with 4 Parts Powder Pack	1 Kg	60
	<b>I.SECTION</b>	<b>GLASS MATERIALS (Landing cost – including loading, cost of conveyance &amp; unloading)</b>		
	<b>I.SUB-SECTION</b>	<b>PLAIN GLASS PANES</b>		
384	BMT-I.01	Plain Float Glass 4 mm thick	1 sqm	373
385	BMT-I.02	Plain Float Glass 5 mm thick	1 sqm	474
386	BMT-I.03	Plain Float Glass 6 mm thick	1 Sqm	593
387	BMT-I.04	Plain Float Glass 8 mm thick	1 Sqm	789
388	BMT-I.05	Plain Float Glass 10 mm thick	1 Sqm	830
389	BMT-I.06	Plain Float Glass 12 mm thick	1 Sqm	996
	<b>II..SUB-SECTION</b>	<b>PIN HEADED GLASS PANES</b>		
390	BMT-I.13	Pin headed Glass 4 mm thick	1 sqm	280
391	BMT-I.14	Pin headed Glass 5 mm thick	1 sqm	364
	<b>III..SUB-</b>	<b>TINTED GLASS PANES</b>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
	<b>SECTION</b>			
392	BMT-I.07	Tinted - Bronze/ Green Glass 4 mm thick	1 sqm	<b>436</b>
393	BMT-I.08	Tinted - Bronze/ Green Glass 5 mm thick	1 sqm	<b>545</b>
394	BMT-I.09	Tinted - Bronze/ Green Glass 6 mm thick	1 Sqm	<b>654</b>
395	BMT-I.10	Tinted - Bronze/ Green Glass 8 mm thick	1 Sqm	<b>935</b>
396	BMT-I.11	Tinted - Bronze/ Green Glass 10 mm thick	1 Sqm	<b>1090</b>
397	BMT-I.12	Tinted - Bronze/ Green Glass 12 mm thick	1 Sqm	<b>1375</b>
	<b>IV..SUB-SECTION</b>	<b>FROSTED/ GROUND GLASS PANES</b>		
398	BMT-I.15	Frosted / Ground Glass 4 mm thick	1 sqm	<b>503</b>
399	BMT-I.16	Frosted / Ground Glass 5 mm thick	1 sqm	<b>632</b>
	<b>V..SUB-SECTION</b>	<b>TOUGHENED PANES</b>		
400	BMT-I.17	Toughened Plain Glass 5 mm (including Glass)	1 sqm	<b>758</b>
401	BMT-I.18	Toughened Plain Glass 6 mm (including Glass)	1 sqm	<b>875</b>
402	BMT-I.19	Toughened Plain Glass 8 mm (including Glass)	1 sqm	<b>1167</b>
403	BMT-I.20	Toughened Plain Glass 10 mm (including Glass)	1 sqm	<b>1399</b>
404	BMT-I.21	Toughened Plain Glass 12 mm (including Glass)	1 sqm	<b>1633</b>
	<b>J.SECTION</b>	<b>PAINTS &amp; POLISHES (Landing cost – including loading, cost of conveyance &amp; unloading)</b>		
	<b>I.SUB-SECTION</b>	<b>PRIMERS, FILLERS &amp; BASES</b>		
405	BMT-J.01	Supply of water based Cement Primer of Interior Grade- 1	1 Kg	<b>141</b>
406	BMT-J.02	Supply of water based Cement Primer of Exterior Grade- 2	1 Kg	<b>180</b>
407	BMT-J.31	Supply of wall putty of White Cement or Polymer or Cement based	20 Kg	<b>550</b>
408	BMT-J.03	Supply of Red Oxide Primer Paint for iron works of Grade -1	1 Litre	<b>121</b>
409	BMT-J.04	Supply of Zinc Chromate Yellow Oxide Primer paint for iron works	1 Litre	<b>175</b>
410	BMT-J.05	Supply of Wood Primer	1 Litre	<b>130</b>
411	BMT-J.06	Supply of Metal paste (Putty) for steel works	1 Kg	<b>130</b>
412	BMT-J.07	Supply of Putty for wood work	1 Kg	<b>130</b>
413	BMT-J.08	Supply of White Lead	1 Kg	<b>93</b>
414	BMT-J.09	Supply of Synthetic clear Varnish	1 Litre	<b>137</b>
415	BMT-J.10	Supply of Spirit	1 Litre	<b>96</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
416	BMT-J.11	Supply of Linseed Oil	1 Litre	55
417	BMT-J.12	Supply of thinner for melamine polish/ french polish	1 Litre	131
418	BMT-J.13	Supply of thinner for Poly-urethane polish	1 Litre	244
419	BMT-J.14	Supply of French Polish	1 Litre	179
420	BMT-J.15	Supply of ready made Wax Polish	1 Kg	514
421	BMT-J.19	Supply of wood adhesive compound	1 Kg	212
422	BMT-J.27	Supply of anti-corrosive grade - 1 bitumen paint of black colour	1 Litre	465
	<b>II.SUB-SECTION</b>	<b>DISTEMPER PAINTS</b>		
423	BMT-J.20	Supply of Dry Powder Distemper	1 Kg	40
424	BMT-J.21	Supply of acrylic based Oil Bound washable Distemper	1 Kg	81
425	BMT-J.26	Supply of paint grade white lime for wash	25 Kg	490
426	BMT-J.23	Supply of Water proof Cement paint	1 Kg	49
427	BMT-J.25	Supply of water proof Cement paint pack	25 Kg	1009
	<b>III.SUB-SECTION</b>	<b>EMULSION BASED PAINTS</b>		
428	BMT-J.24	Supply of acrylic emulsion paint <b>interior grade</b> having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	168
429	BMT-J.34	Supply of acrylic emulsion paint <b>exterior grade</b> with silicon additives having VOC (Volatile Organic Compound ) content less than 50 grams/ liter.	1Lit	194
430	BMT-J.35	Supply of acrylic emulsion paint <b>weather proof water-based</b> , modified acrylic with silicon additives <b>exterior grade</b> having VOC (Volatile Organic Compound ) content less than 50 grams/ liter.	1Lit	214
	<b>IV.SUB-SECTION</b>	<b>SOLVENT BASED PAINTS</b>		
431	BMT-J.22	Supply of synthetic polymer luxury plastic emulsion paint of <b>superior grade</b> having VOC (Volatile Organic Compound) content less than 50 grams/ liter.	1 Litre	404
	<b>V.SUB-SECTION</b>	<b>OIL BASED ENAMEL PAINTS</b>		
432	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	248
433	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
	<b>VI.SUB-SECTION</b>	<b>TEXTURE PAINTS</b>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
434	BMT-J.32	Exterior Texture.	25 Kg	818
435	BMT-J.33	Gold line Exterior Texture	25 Kg	1060
	<b>VII.SUB-SECTION</b>	<b>SPECIAL PAINTS</b>		
436	BMT-J.16	Supply of Melamine Polish	1 Litre	314
437	BMT-J.17	Supply of Interior Grade Poly-Urethane Polish	1 Litre	637
438	BMT-J.18	Supply of Exterior Grade Poly-Urethane Polish	1 Litre	708
439	BMT-J.28	Supply of grade-1 aluminium paint	1 Litre	255
440	BMT-J.36	Acrylic spray plaster in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion any grade <b>Spray Plaster - Superfine (Interior Grade)</b>	25Kg	500
441	BMT-J.37	<b>Acrylic coarse spray plaster</b> in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion <b>interior gradeAcrylic coarse</b>	25Kg	400
442	BMT-J.38	Supply of <b>acrylic emulsion paint interior premium grade</b> having VOC (Volatile Organic Compound) content less than 50 grams/liter	1 Liter	200
443	BMT-J.39	Supply of Base coat as primer for natural textures and natural stone based paints - <b>Exterior GradeBASE COAT</b>	1Kg	61
444	BMT-J.40	<b>Acrylic spray plaster in paste form</b> made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion <b>exterior grade Spray Plaster (Exterior)</b>	25Kg	1300
445	BMT-J.41	Supply of <b>acrylic emulsion paint exterior premium grade</b> with silicon additives having VOC (Volatile Organic Compound) content less than 50 grams/liter.Alltime	1 Liter	310
	<b>K</b>	<b>PARTICLE BOARDS (Landing cost – including loading, cost of conveyance, unloading)</b>		
	<b>I.SUB-SECTION</b>	<b>MELAMINE FACED PLAIN PARTICLE BOARDS</b>		
446	BMT-K.01	Melamine faced Single Deco PPB- 8 mm thick	1Sqm	590
447	BMT-K.02	Melamine faced Single Deco PPB- 12 mm thick	1Sqm	670
448	BMT-K.03	Melamine faced Single Deco PPB- 18 mm thick	1Sqm	776
449	BMT-K.04	Melamine faced Single Deco PPB- 25 mm thick	1Sqm	879
450	BMT-K.05	Melamine faced Single Deco PPB- 35 mm thick	1 Sqm	1463
451	BMT-K.06	Melamine faced Twin Deco PPB- 8 mm thick	1 Sqm	679
452	BMT-K.07	Melamine faced Twin Deco PPB- 12 mm thick	1 Sqm	776
453	BMT-K.08	Melamine faced Twin Deco PPB-18 mm thick	1 Sqm	898

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
454	BMT-K.09	Melamine faced Twin Deco PPB-25 mm thick	1 Sqm	995
455	BMT-K.10	Melamine faced Twin Deco PPB-35 mm thick	1 Sqm	1869
	<b>II.SUB-SECTION</b>	<b>INSULATING PARTICLE BOARDS</b>		
456	BMT-K.11	Natural Colour-Insulating Board - 12 mm thick	1 Sqm	242
457	BMT-K.12	Natural Colour-Insulating Board - 18 mm thick	1 Sqm	358
458	BMT-K.13	Natural Colour-Insulating Board - 25 mm thick	1 Sqm	414
459	BMT-K.14	White Insulating Board - 12 mm thick	1 Sqm	268
460	BMT-K.15	White Insulating Board - 18 mm thick	1 Sqm	383
461	BMT-K.16	White Insulating Board - 25 mm thick	1 Sqm	341
	<b>III.SUB-SECTION</b>	<b>MEDIUM DENSITY FIBRE BOARD</b>		
462	BMT-K.17	Medium Fibre Board: Interior Grade - 6 mm thick	1 Sqm	359
463	BMT-K.18	Medium Fibre Board: Interior Grade - 8 mm thick	1 Sqm	407
464	BMT-K.19	Medium Fibre Board: Interior Grade - 12 mm thick	1 Sqm	545
465	BMT-K.20	Medium Fibre Board: Interior Grade - 15 mm thick	1 Sqm	693
466	BMT-K.21	Medium Fibre Board: Interior Grade - 18 mm thick	1 Sqm	773
467	BMT-K.22	Medium Fibre Board: Interior Grade - 25 mm thick	1 Sqm	1208
468	BMT-K.23	Medium Fibre Board: Interior Grade - 30 mm thick	1 Sqm	1460
469	BMT-K.24	Medium Fibre Board: Interior Grade - 35 mm thick	1 Sqm	1592
470	BMT-K.25	Medium Fibre Board: Exterior Grade - 6 mm thick	1 Sqm.	488
471	BMT-K.26	Medium Fibre Board: Exterior Grade - 8 mm thick	1 Sqm.	569
472	BMT-K.27	Medium Fibre Board: Exterior Grade - 12 mm thick	1 Sqm.	753
473	BMT-K.28	Medium Fibre Board: Exterior Grade - 15 mm thick	1 Sqm.	946
474	BMT-K.29	Medium Fibre Board: Exterior Grade - 18 mm thick	1 Sqm.	1059
475	BMT-K.30	Medium Fibre Board: Exterior Grade - 25 mm thick	1 Sqm.	1411
476	BMT-K.31	Medium Fibre Board: Exterior Grade - 30 mm thick	1 Sqm.	1758
477	BMT-K.32	Medium Fibre Board: Exterior Grade - 35 mm thick	1 Sqm.	2077
478	BMT-K.33	MDF Board: Plain-Interior - 9 mm thick	1 Sqm	346
479	BMT-K.34	MDF Board: Plain-Interior - 12 mm thick	1 Sqm	393
480	BMT-K.35	MDF Board: Plain-Interior - 18 mm thick	1 Sqm	487

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
481	BMT-K.36	MDF Board: Plain-Interior - 25 mm thick	1 Sqm	584
482	BMT-K.37	MDF Board: Plain-Interior - 30 mm thick	1 Sqm	890
483	BMT-K.38	MDF Board: Plain-Interior - 35 mm thick	1 Sqm	1053
484	BMT-K.39	MDF Board: Plain-Exterior - 9 mm thick	1 Sqm	431
485	BMT-K.40	MDF Board: Plain-Exterior - 12 mm thick	1 Sqm	487
486	BMT-K.41	MDF Board: Plain-Exterior - 18 mm thick	1 Sqm	639
487	BMT-K.42	MDF Board: Plain-Exterior - 25 mm thick	1 Sqm	801
488	BMT-K.43	MDF Board: Plain-Exterior - 30 mm thick	1 Sqm	1053
489	BMT-K.44	MDF Board: Plain-Exterior - 35 mm thick	1 Sqm	1213
490	BMT-K.45	MDF Board: Interior-One Side Laminated -9 mm thick	1 Sqm	542
491	BMT-K.46	MDF Board: Interior-One Side Laminated -12 mm thick	1 Sqm	613
492	BMT-K.47	MDF Board: Interior-One Side Laminated -18 mm thick	1 Sqm	713
493	BMT-K.48	MDF Board: Interior-One Side Laminated -25 mm thick	1 Sqm	801
494	BMT-K.49	MDF Board: Interior-One Side Laminated -30 mm thick	1 Sqm	1158
495	BMT-K.50	MDF Board: Interior-One Side Laminated -35 mm thick	1 Sqm	1235
496	BMT-K.51	MDF Board: Exterior-One Side Laminated -9 mm thick	1 Sqm	623
497	BMT-K.52	MDF Board: Exterior-One Side Laminated -12 mm thick	1 Sqm	700
498	BMT-K.53	MDF Board: Exterior-One Side Laminated -18 mm thick	1 Sqm	793
499	BMT-K.54	MDF Board: Exterior-One Side Laminated -25 mm thick	1 Sqm	927
500	BMT-K.55	MDF Board: Exterior-One Side Laminated -30 mm thick	1 Sqm	1235
501	BMT-K.56	MDF Board: Exterior-One Side Laminated -35 mm thick	1 Sqm	1312
502	BMT-K.57	MDF Board: Interior-Both Side Laminated -9 mm thick	1 Sqm	590
503	BMT-K.58	MDF Board: Interior-Both Side Laminated -12 mm thick	1 Sqm	700
504	BMT-K.59	MDF Board: Interior-Both Side Laminated -18 mm thick	1 Sqm	801
505	BMT-K.60	MDF Board: Interior-Both Side Laminated -25 mm thick	1 Sqm	1006
506	BMT-K.61	MDF Board: Interior-Both Side Laminated -30 mm thick	1 Sqm	1235
507	BMT-K.62	MDF Board: Interior-Both Side Laminated -35 mm thick	1 Sqm	1312
508	BMT-K.63	MDF Board: exterior-Both Side Laminated -9 mm thick	1 Sqm	666
509	BMT-K.64	MDF Board: exterior-Both Side Laminated -12 mm thick	1 Sqm	792
510	BMT-K.65	MDF Board: exterior-Both Side Laminated -18 mm thick	1 Sqm	937
511	BMT-K.66	MDF Board: exterior-Both Side Laminated -25 mm thick	1 Sqm	1024
512	BMT-K.67	MDF Board: exterior-Both Side Laminated -30 mm thick	1 Sqm	1296
513	BMT-K.68	MDF Board: exterior-Both Side Laminated -35 mm thick	1 Sqm	1390
	<b>IV.SUB-SECTION</b>	<b>CEMENT BONDED PARTICLE BOARD</b>		
514	BMT-K.69	Cement bonded particle board conforming to IS 14276- 6 mm thick	1 sqm	233

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
515	BMT-K.70	Cement bonded particle board conforming to is 14276- 8 mm thick	1 sqm	311
516	BMT-K.71	Cement bonded particle board conforming to is 14276- 10 mm thick	1 sqm	390
517	BMT-K.72	Cement bonded particle board conforming to is 14276- 12 mm thick	1 sqm	479
518	BMT-K.73	Cement bonded particle board conforming to is 14276- 16 mm thick	1 sqm	633
519	BMT-K.109	Cement bonded particle board conforming to is 14276- 18 mm thick	1 Sqm	672
520	BMT-K.74	Cement bonded particle board conforming to is 14276- 20 mm thick	1 sqm	771
521	BMT-K.75	Cement bonded particle board conforming to is 14276- 25 mm thick	1 sqm	921
522	BMT-K.76	Cement bonded particle board conforming to is 14276- 30 mm thick	1 sqm	1119
523	BMT-K.77	Cement bonded particle board conforming to is 14276- 40 mm thick	1 sqm	1495
524	BMT-K.78	Pre laminated cement bonded particle board-6 mm thick	1 sqm	498
525	BMT-K.79	Pre laminated cement bonded particle board-8 mm thick	1 sqm	545
526	BMT-K.80	Pre laminated cement bonded particle board- 10 mm thick	1 sqm	583
527	BMT-K.81	Pre laminated cement bonded particle board- 12 mm thick	1 sqm	671
528	BMT-K.82	Pre laminated cement bonded particle board- 16 mm thick	1 sqm	714
529	BMT-K.83	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- <b>6mm thick</b>	1 sqm	286
530	BMT-K.84	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- <b>8mm thick</b>	1 sqm	346
531	BMT-K.85	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- <b>10mm thick</b>	1 sqm	425
532	BMT-K.86	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- <b>12mm thick</b>	1 sqm	523
533	BMT-K.87	Cement Bonded Particale DESIGNER BOARD Available Designs 1. Lumber 2. Quadra 3. Murk Standard size 8'X4' 10'X4'- <b>16mm thick</b>	1 sqm	691
534	BMT-K.88	Cement Bonded Board conforming to IS:14862-2000 - 4mm Thick	1 Sqm	146
535	BMT-K.89	Cement Bonded Board conforming to IS:14862-2000 - 6mm Thick	1 Sqm	209
536	BMT-K.90	Cement Bonded Board conforming to IS:14862-2000 - 8mm Thick	1 Sqm	269

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
537	BMT-K.91	Cement Bonded Board conforming to IS:14862-2000 - 10mm Thick	1 Sqm	309
538	BMT-K.92	Cement Bonded Board conforming to IS:14862-2000 - 12mm Thick	1 Sqm	386
539	BMT-K.93	Cement Bonded Board conforming to IS:14862-2000 - 14mm Thick	1 Sqm	410
540	BMT-K.94	Cement Bonded Board conforming to IS:14862-2000 - 16mm Thick	1 Sqm	490
541	BMT-K.95	Cement Bonded Board conforming to IS:14862-2000 - 18mm Thick	1 Sqm	529
542	BMT-K.96	Cement Bonded Board conforming to IS:14862-2000 - 20mm Thick	1 Sqm	590
543	BMT-K.105	<b>ITEM DELETED</b>		
544	BMT-K.106	50 mm thick <b>SOLID WALL PANEL</b> Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	907
545	BMT-K.107	75 mm thick <b>SOLID WALL PANEL</b> Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1143
<b>Note: Items BMT-K.97 , BMT-K.98,BMT-K.99,BMT-K.100,BMT-K.101,BMT-K.102,BMT-K.103,BMT-K.104 are removed in the section K and are brought as new items in the Section L as BMT-L.21,BMT-L.22,BMT-L.23,BMT-L.24,BMT-L.25,BMT-L.26,BMT-L.27,BMT-L.28.</b>				
	<b>L.SECTION</b>	<b>PLYWOOD</b> (Landing cost – including loading, cost of conveyance, unloading)		
546	<b>I.SUB-SECTION</b>	<b>MOISTURE RESISTANT (MR) GRADE</b>		
547	BMT-L.01	3 Ply - 4 mm thick Plywood(IS:303) MR Grade	1 Sqm	363
548	BMT-L.02	5 Ply - 6 mm thick Plywood(IS:303) MR Grade	1 Sqm	399
549	BMT-L.03	5 Ply - 8 mm thick Plywood(IS:303) MR Grade	1 Sqm	480
550	BMT-L.04	5 Ply - 9 mm thick Plywood(IS:303) MR Grade	1 Sqm	480
551	BMT-L.05	9 Ply - 12 mm thick Plywood(IS:303) MR Grade	1 Sqm	600
552	BMT-L.06	9 Ply - 15 mm thick Plywood(IS:303) MR Grade	1 Sqm	885
553	BMT-L.07	9 Ply - 18 mm thick Plywood(IS:303) MR Grade	1 Sqm	867
	<b>II.SUB-SECTION</b>	<b>BOILING WATER RESISTANT (BWR) GRADE</b>		
554	BMT-L.08	3 Ply - 4 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	423
555	BMT-L.09	5 Ply - 6 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	472
556	BMT-L.10	5 Ply - 8 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	588
557	BMT-L.11	5 Ply - 9 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	554
558	BMT-L.12	9 Ply - 12 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	725

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
559	BMT-L.13	9 Ply - 15 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	1031
560	BMT-L.14	9 Ply - 19 mm thick Plywood(IS:303) BWR/BWP Grade	1 Sqm	1044
	<b>III.SUB-SECTION</b>	<b>VENEERED DECORATIVE PLYWOOD</b>		
561	BMT-L.15	3 Ply-4 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	561
562	BMT-L.16	5 Ply - 6 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	731
563	BMT-L.17	5 Ply - 9 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	894
564	BMT-L.18	9 Ply - 13 mm thick One side Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	1193
565	BMT-L.19	5 Ply - 9 mm thick Both sides Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	1221
566	BMT-L.20	9 Ply - 12 mm thick Both sides Teak Veneer Decorated Plywood (IS:1328)	1 Sqm	1359
	<b>IV.SUB-SECTION</b>	<b>LAMINATES</b>		
567	BMT-L.21	Laminate Sheets - Glossy Finish: 1 mm thick	1 Sqm	367
568	BMT-L.22	Laminate Sheets - Glossy Finish: 1.50 mm thick	1 Sqm	524
569	BMT-L.23	Laminate Sheets - Glossy Finish: 1.80 mm thick	1 Sqm	575
570	BMT-L.24	Laminate Sheets - Mat Finish: 1 mm thick	1 Sqm	370
571	BMT-L.25	Laminate Sheets - Mat Finish: 1.50 mm thick	1 Sqm	516
572	BMT-L.26	Laminate Sheets - Mat Finish: 1.80 mm thick	1 Sqm	555
	<b>V.SUB-SECTION</b>	<b>COMMERCIAL VENEERS</b>		
573	BMT-L.27	Teak Veneer Lamination - 4 mm thick - Pencil Grains	1 Sqm	410
574	BMT-L.28	Teak Veneer Lamination - 4 mm thick - Natural Grains	1 Sqm	717
575	BMT-L.29	Providing Wood Polymer Composite (WPC) solid, frostywhite single extruded factory made 2.44 mt x 1.22 mt boards in		
576	BMT-L.29.A	6 MM thickness (Density 550 kg/Cum, Weight 9.5Kg)	sqmt	630
577	BMT-L.29.B	11 MM thickness (Density 500 kg/Cum, Weight 16.5Kg)	sqmt	1080
578	BMT-L.29.C	18 MM thickness (Density 650 kg/Cum, Weight 35Kg)	sqmt	2145
	<b>M.SECTION</b>	<b>CEILINGS, WALL PARTITIONS &amp; WALL LININGS</b>		
	<b>I.SUB-SECTION</b>	<b>FALSE CEILINGs- TILES / SHEETS</b>		
579	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
580	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

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
581	BMT-M.03	Gypsum Board Plain sheet 12.5 mm thick as per IS 2095 - 1993	1 Sqm	210
582	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 $\lambda$ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	524
583	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 $\lambda$ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	614
584	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 $\lambda$ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	661
585	BMT-M.31	12 mm - Mineral Fiber sheet 600 x 600 (Square / Tegular) Edge tiles	1 Sqm	406
586	BMT-M.36	Supply of Thermocole 12 mm thick sheets	1 Sqm	24
587	BMT-M.37	Supply of Thermocole 19 mm thick sheets	1 Sqm	41
588	BMT-M.40	Calcium Silicate Boards - 6mm thick	1 Sqm	198
589	BMT-M.41	Calcium Silicate Boards - 8mm thick	1 Sqm	263
590	BMT-M.42	Calcium Silicate Boards - 10mm thick	1 Sqm	330
591	BMT-M.43	Calcium Silicate Boards - 12mm thick	1 Sqm	395
592	BMT-M.51	Supplying and fixing of false ceiling using Plaster of paris Boards <b>12 mm thick</b> with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	405
593	BMT-M.52	Supplying and fixing of false ceiling using Plaster of paris Boards <b>10 mm thick</b> with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	338
594	BMT-M.53	Designer ceiling Cement Boards -thickness 3.2 mm	1 Sqm	212
595	BMT-M.54	High pressure steam cured Cement Boards 4 mm thick	1 Sqm.	113
596	BMT-M.55	High pressure steam cured Cement Boards 6 mm thick	1 Sqm.	170
597	BMT-M.56	High pressure steam cured Cement Boards 8 mm thick	1 Sqm.	225
598	BMT-M.57	High pressure steam cured Cement Boards 10 mm thick	1 Sqm.	283
599	BMT-M.58	High pressure steam cured Cement Boards 12 mm thick	1 Sqm.	339
600	BMT-M.59	High pressure steam cured Cement Boards 14 mm thick	1 Sqm.	395

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
601	BMT-M.60	High pressure steam cured Cement Boards 16 mm thick	1 Sqm.	452
602	BMT-M.61	High pressure steam cured Cement Boards 18 mm thick	1 Sqm.	508
603	BMT-M.62	High pressure steam cured Cement Boards 20 mm thick	1 Sqm.	564
604	BMT-M.63	High pressure steam cured designer Cement Boards 4 mm thick	1 Sqm.	166
605	BMT-M.64	High pressure steam cured designer Cement Boards 6 mm thick	1 Sqm.	245
606	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
607	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
608	BMT-M.80	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 13 mm thick Square Edge - <b>Fissura Fine Model</b>	1 Sqm	321
609	BMT-M.81	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 13 mm thick Square Edge - <b>Speckle Model</b>	1 Sqm	359
610	BMT-M.82	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 13 mm thick Square Edge - <b>Textura Model</b>	1 Sqm	397
611	BMT-M.83	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick <b>Standard Regular Edge</b>	1 Sqm	406
612	BMT-M.84	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick <b>Fissura Fine Model</b>	1 Sqm	416
613	BMT-M.85	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15	1 Sqm	434

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		mm thick <b>Speckle Model</b>		
614	BMT-M.86	Mineral Fibre Ceiling Tile of 0.595 mm x 0.595 mm of 15 mm thick <b>Textura Model</b>	1 Sqm	<b>471</b>
615	BMT-M.87	Supply and fixing of <b>PVC false ceiling</b> 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 ± 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, complete, for finished item of work.	1 Sqm.	<b>1308</b>
	<b>II.SUB-SECTION</b>	<b>FALSE CEILINGs- SECTIONS &amp; ACCESSORIES</b>		
616	BMT-M.04	G.I. Ceiling Angle - 25 mm x 10 mm x 0.55 mm	1 RM	<b>63</b>
617	BMT-M.05	G.I. Ceiling Section 51.5 mm x 26 mm x 10.5 mm x 0.55 mm thick	1 RM	<b>72</b>
618	BMT-M.06	G.I. Intermediate Section 45 mm x 15 mm x 15 mm x 0.9 mm	1 RM	<b>71</b>
619	BMT-M.07	G.I. Perimeter Channel - 20 mm x 27 mm x 30 mm (web) of 0.55 mm thick	1 RM	<b>63</b>
620	BMT-M.08	G.I.-Precoated Fine line Grid 25 mm x 25 mm x 0.7 mm	1 RM	<b>35</b>
621	BMT-M.09	G.I.-Precoated Fine line Grid 15 mm x 25 mm x 0.7 mm	1 RM	<b>31</b>
622	BMT-M.10	GI - Precoated - T-Sec- 24 mm x 38 mm x 0.7 mm thick	1 RM	<b>46</b>
623	BMT-M.11	Hot dipped GI Angle - Precoated - Grid: 19 mm x 19 mm	1 RM	<b>34</b>
624	BMT-M.12	Polyester painted GI - T Section - 24 x 32 mm	1 RM	<b>42</b>
625	BMT-M.13	Polyester painted GI - T Section - 24 x 25 mm	1 RM	<b>38</b>
626	BMT-M.14	Polyester painted GI - T Section - 24 mm x 27 mm	1 RM	<b>39</b>
627	BMT-M.15	Aluminium Angle : 24 mm x 24 mm	1 RM	<b>24</b>
628	BMT-M.16	Anodised Aluminium T Section : 24 x 24.5 x 2.4 mm	1 RM	<b>29</b>
629	BMT-M.17	Connecting Clips	1 Each	<b>3</b>
630	BMT-M.18	Rawl Plug	1 Each	<b>2</b>
631	BMT-M.19	6 mm Nylon Rawl Plug	1 Each	<b>4</b>
632	BMT-M.20	Soffit Cleats	1 Each	<b>3</b>
633	BMT-M.21	Drywall Screws - 25 mm	1 Each	<b>2</b>
634	BMT-M.22	Jointing Compound	1 Kg	<b>25</b>
635	BMT-M.23	Jointing Paper Tape	1 RM	<b>4</b>
636	BMT-M.24	Drywall Top Coat	1 Litre	<b>120</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
637	BMT-M.25	Universal Holding Clips	1 Each	3
638	BMT-M.26	4 mm Dia GI Connecting Rod	1 RM	11
639	BMT-M.27	2 mm Dia GI Connecting Rod	1 RM	8
	<b>III.SUB-SECTION</b>	<b>WALL PANELLS &amp; WALL LININGS</b>		
640	BMT-M.39	Providing wooden panelling 12 mm thick 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
641	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
642	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 40x10 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 clad 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 CEMENT BONDED BOARD	1 Sqm.	816
643	BMT-M.66	<b>ITEM DELETED</b>		
644	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 intervals 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 tapping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat o primer and two coats of smooth finish and cost & conveyance of all materials, labor charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1161
645	BMT-M.74	Supply and fixing of CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS wall paneling using 12 MM CEMENT	1 Sqm	1763

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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 internals 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		
646	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 from 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 a 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
647	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 grove 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 c entre. 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 n 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
648	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 ± 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	1 Sqm.	1239

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		work.		
		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:		
649	BMT-M.47	A) using 8mm thick Calcium silicate boards	1 Sqm	702
650	BMT-M.48	B) Using 10mm thick Calcium silicate boards	1 Sqm	773
651	BMT-M.49	C) Using 12mm thick Calcium silicate boards	1 Sqm	844
652	BMT-M.95	Providing and fixing in position wall panelling to all heights with eco friendly light weight calcium silicate panels/tiles Globe Design of size 595mm x 595mm having square/butt edge having NRC(Noise Reduction Coefficient) of 0.5 to 0.75 as per IS 8225:1987, Light reflectance of 85%(minimum), Non Combustible as per BS:476 (part-4), fire performance as per BS:476 (part-6&7), humidity resistance of 100% and thermal conductivity < 0.043 W/m K as per ASTM 518:1991, comprising of a frame made from especially fabricated galvanised mild steel sheet 0.50 mm thick pressed section (galvanizing @120 grams per sqm including both sides) i.e.vertical studs of size 48 x 34 x 36 mm are placed at 600mm center to center in a floor and ceiling channel section of size 50 x 32mm fixed to the floor and soffit at 600mm centers using 12mm dia,50mm long wedge type expanded zinc alloy dash fastner with 10mm bolt. Glasswool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13 x 3.2mm on to this grid leaving an even groove of 1 mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound & fiber joint tape roll 50mm wide (90 metre )roll and two coats of primer suitable for panelling as per manufacturer's specification as per direction of Engineer-in-Charge all complete.(With 15 mm thick integral densified fully perforated light weight calcium silicate panels/tiles)	sqm	2155
	<b>IV</b>	<b>PARTITIONS</b>		
653	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
654	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

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
655	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 - <b>Using 10mm thick Calcium silicate boards</b>	1 Sqm	<b>1325</b>
656	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 - <b>Using 12mm thick Calcium silicate boards</b>	1 Sqm	<b>1465</b>
657	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	<b>3745</b>
658	BMT-M.67	Supply and fixing double skin CEMENT BOARD 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.	<b>1195</b>
659	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
660	BMT-M.69	Providing and fixing of 75mm thick SOLID WALL PANEL	1	1762

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.	Sqm.	
661	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 taping screws fixed at every 300mm intervals to the frame work leaving 3 mm gap between two panels. The cost inclusive with one coat of primer and two coats of 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
662	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 internals 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
663	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	1 Sqm	2908

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.		
664	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 PVC 'C' channel of size 50X100mm with feathered edges shall be fixed on the floor & 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	1 sqm	2576
665	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		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.		
666	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
667	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
		<b>DRY WALL PARTITION WITH 50 MM THICK V-PANEL</b>		
668	BMT-M.92	CEMENT BONDED PARTICLE PLANK- 8 mm- Available size-150 mm X2440mm and 200mm X 2440mm	1 Sqm	613
669	BMT-M.93	CEMENT BONDED PARTICLE PLANK- 10 mm- Available size-150 mm X2440mm and 200mm X 2440mm	1 Sqm	751
670	BMT-M.94	CEMENT BONDED PARTICLE PLANK- 12 mm- Available size-150 mm X2440mm and 200mm X 2440mm	1 Sqm	919
	<b>Note: Items BMT-M.33, BMT-M.34, and BMT-M.35 are removed in the section M and are brought as new items in the Section D as BMT-D.18, BMT-D.19 and BMT-D.20.</b>			
	<b>N.SECTION</b>	<b>DOORS</b> (Landing cost – including loading, cost of conveyance, unloading)		
	<b>I.SUB-SECTION</b>	<b>DOOR FRAMES</b>		
671	BMT-N.80	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	<b>619</b>
672	BMT-N.81	Mild Steel Hallow single rebate general purpose 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 provision for Tower Bolts, Aldrops, Lock & Strike plates etc.	1 Rm	<b>353</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		for both single and double shutter doors		
673	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	330
674	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 15x15mm MS.Square tube. The two vertical door profiles are to be reinforced with 19X19mm MS. square tube of 19gauge. 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	330
675	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	237
676	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	186
677	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	197
678	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	1 RM	200

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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		
679	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	225
680	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	231
681	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
682	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	1 RM	410

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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 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.		
683	BMT-N.54	Providing & fixing <b>internal prelaminated PVC door frame</b> 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	<b>550</b>
684	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.	<b>196</b>
685	BMT-N.83	Providing and fixing factory made solid Wood Polymer Composite (WPC) single extruded Door Frame section of size with encapsulation of 8MM rigid layer on all the six surfaces. The door frame will have a rebat of 32MM.		
686	BMT-N.83.A	Door Frame section of 45x75 MM . The two Vertical members are to be joined together with the horizontal member using 8x50 MM long MS Star full thread screws to be used with reverse forward speed control hand drilling machine. The ready/assembled door frame is fixed to the wall using hold fast or bolt fasteners. A minimum of 4 No.s of screws to be provided for each vertical member & minimum 2no.s for horizontal member.	1 Rm	506
687	BMT-N.83.B	Door Frame section of 45x90 MM . The two Vertical members are to be joined together with the horizontal member using 8x60 MM long MS Star full thread screws to be used with reverse forward speed control hand drilling machine. The ready/assembled door frame is fixed to the wall using hold fast or bolt fasteners. A minimum of 4 No.s of screws to be provided for each vertical member & minimum 2no.s for horizontal member.	1 Rm	645
688	BMT-N.83.C	Door Frame section of 63.5x100 MM .The two Vertical members are to be joined together with the horizontal member using 8x75 MM long MS Star full thread screws to be used with reverse forward speed control hand drilling machine. The ready/assembled door frame is fixed to the	1 Rm	805

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		wall using hold fast or bolt fasteners. A minimum of 4 No.s of screws to be provided for each vertical member & minimum 2no.s for horizontal member.		
689	BMT-N.82	Supply and fixing of factory made <b>Bathroom door frames</b> 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. (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.	1 RM	<b>407</b>
	<b>II.SUB-SECTION</b>	<b>DOOR SHUTTERS WITHOUT FRAMES</b>		
690	BMT-N.12	Flush door shutters, solid bond wood block board type with <b>teak ply on both faces.</b> : 25 mmthick conforming to IS:2202	1 sqm	<b>1790</b>
691	BMT-N.13	Flush door shutters, solid bond wood block board type with <b>teak ply on both faces.</b> : 30 mmthick conforming to IS:2202	1 sqm	<b>1860</b>
692	BMT-N.14	Flush door shutters, solid bond wood block board type with <b>teak ply on both faces.</b> : 35 mmthick conforming to IS:2202	1 sqm	<b>2031</b>
693	BMT-N.15	Flush door shutters, solid bond wood block board type with <b>commercial ply on both faces.</b> : 25 mmthick conforming to IS:2202	1 sqm	<b>1041</b>
694	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	<b>1232</b>
695	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	<b>1396</b>
696	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	<b>1564</b>
697	BMT-N.19	Flush door shutters, solid bond wood block board type <b>with teak veneer on one face and commercial ply on another face (lipping)</b> : 20 mmthick conforming to IS:2202	1 sqm	<b>1960</b>
698	BMT-N.20	Flush door shutters, solid bond wood block board type with	1 sqm	<b>1893</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		teak veneer on one face and commercial ply on another face (lipping): 25 mmthick conforming to IS:2202		
699	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	<b>2096</b>
700	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	<b>2285</b>
701	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	<b>2612</b>
702	BMT-N.25	Supply and fixing <b>Cement Bonded Particle Board (IS 14276) single door shutter</b> using with 16MM Cement Bonded Particle Board with all-round "U" section of size <b>12mmx18mmx12mm</b> 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	<b>1889</b>
703	BMT-N.26	Supply and fixing of <b>Cement Bonded Particle Board (IS 14276) door shutters</b> using with 16MM Cement Bonded Particle Board with all round style "U" size of <b>20mmx18mm x20mm</b> made from 0.6mm thick galvanized pre-painted cold rolled steel profiles with Cement Bonded Particle Board separating two shutter with 30mmx18mmx30mm Stepped lippping 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	<b>2654</b>
704	BMT-N.79	Supply and fixing of <b>CEMENT BONDED PARTICLE BOARD double door shutter</b> 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 lippping 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	<b>2687</b>
705	BMT-N.30	Supply and fixing of <b>CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS door shutter</b> made out of U sections	1 Sqm	<b>2205</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		of size 12x14x12 made from 0.6mm thick pps sections with 12MM <b>CEMENT BONDED PRE-LAMINATED PARTICLE BOARDS</b> with necessary screws fixed at every 1'.0"interwells. The hardware consists of 250mm long aldrops – 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.		
706	BMT-N.63	Supply and fixing of <b>BOARD (conforming to IS 14862) door shutter</b> 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 <b>V-BOARD</b> 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	<b>1350</b>
707	BMT-N.27	Supply and fixing of <b>Cement Bonded Particle Board (IS 14276) LAM double door shutter</b> 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	<b>2222</b>
708	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	<b>1637</b>
709	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	<b>1810</b>
710	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	<b>1350</b>
711	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	<b>1502</b>
712	BMT-N.06	Providing and fixing <b>35mm thick BRAND FACTORY MADE MOULDED DOOR SHUTTER</b> 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	1 sqm	<b>2726</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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		
713	BMT-N.31	Supply and fixing of <b>door shutters made of rigid PVC extruded hollow section</b> 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. <b>The shutter frame</b> 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.	<b>1690</b>
714	BMT-N.52	Supply & Fixing <b>SOLID STEEL DOOR door shutter</b> 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	<b>1400</b>
715	BMT-N.64	Supply and fixing of <b>BOARD (conforming to IS 14862) 12 mm thick door shutter of size 6'0" x 2'6"</b> with half-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	<b>1160</b>
716	BMT-N.68	Providing of <b>35mm thick Facotry made Prelaminated ABS (Acrolonitrile Butadyne Styrene) Door shutter moulded</b> 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 prelaminated 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	1 Sqm	<b>6200</b>
	<b>III.SUB-SECTION</b>	<b>DOORS WITH SHUTTERS &amp; FRAMES</b>		
717	BMT-N.02	Providing and fixing <b>30mm thick Solid panel PVC door shutter consisting of frame</b> 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	1 Sqm	<b>2270</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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 .		
718	BMT-N.03	Providing and fixing <b>30mm thick BRAND FACTORY MADE BOTHSIDE PRELAM SOLID PANEL PVC DOOR SHUTTER consisting of frame</b> 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 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 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 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	<b>2515</b>
719	BMT-N.04	Providing and fixing <b>30mm thick BRAND FACTORY MADE SOLID SINGLE SIDE PRELAM PANEL PVC DOOR SHUTTER consisting of frame</b> 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 single side Prelam Pac 'C' channel of size 30mmX50mm to form stiles. 5mm thick & 75mm wide single side prelim 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	1 sqm	<b>2198</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		beading) and attached to the back(white/ivory) stiles and rails which should have a 10mm 900 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.		
720	BMT-N.07	MOULDED PVC DOOR - WOOD FREE Providing and fixing 30mm thick 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	2265
721	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 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'	1 sqm	2000

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		channel using PVC solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawings		
722	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	1600
723	BMT-N.28	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 "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 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
-	-	<b>DOORS FRAMES (COLOUR COATED STEEL SECTIONS) &amp; SHUTTER USING CEMENT BONDED PARTICLE BOARD AS PER IS 14276:</b>	-	
724 TO 727	BMT-N.40 to BMT-N.43	<b>ITEM DELETED</b>		
728	BMT-N.44	Supplying and fixing <b>door shutter, with shutter frame and infill panel made from PVC material</b> 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	1 Sqm	910

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.		
729	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
730	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., 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	1 Sqm	9971
731	BMT-N.51	Providing & fixing <b>30 mm thick solid panel PVC door shutter consisting of frame</b> 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	1 Sqm	2750

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.		
732	BMT-N.53	Supplying & fixing <b>SINGLE PANEL 30 mm thick PVC DOOR, door shutters with shutter frame</b> 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 including providing special PVC bracket on hinge side, etc complete	1 Sqm	<b>2350</b>
733	BMT-N.55	Supply & Fixing of <b>Powder Coated Mild Steel doors, frames &amp; shutters</b> 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 size 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	<b>9902</b>
734	BMT-N.56	Supply & Fixing of <b>Stainless steel doors, frames &amp; shutters</b> made of stainless steel grade 304 of hairline finish, frame with 1.2mm thick formed to single rebate profile of size 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	1 Sqm	<b>18566</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, cleanroom applications.		
735	BMT-N.57	Supply & Fixing of <b>Powder Coated Fire Rated doors, frames &amp; shutters</b> 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	<b>11758</b>
736	BMT-N.58	Supply & Fixing of <b>Powder Coated Fire Rated doors, frames &amp; shutters</b> 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	<b>11140</b>
737	BMT-N.59	Supply & Fixing of <b>Stainless steel Fire Rated doors,</b>	1 Sqm	<b>17681</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<b>frames &amp; shutters</b> 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 size 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		
738	BMT-N.60	Supply & Fixing of <b>Stainless steel Fire Rated doors, frames &amp; shutters</b> 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 size 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	<b>16186</b>
739	BMT-N.61	Supply & Fixing of <b>Lead Lined Clean room doors frames and shutters</b> 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)	1 Sqm	<b>13329</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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		
740	BMT-N.62	Supply & Fixing of <b>Lead Lined Stainless steel Clean room door frames and shutters</b> 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	<b>21041</b>
741	BMT-N.66	<b>ITEM DELETED</b>		
742	BMT-N.67	A) Specification for Foamed PVC Door Frame & ABS Shutters: Providing of Factory made prelaminated 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 stiffeners of ("U" channel of size 29x9x1mm, 150mm long) -3 no's at hinge point, Frame reinforcement of ("U" GI channel of size 46x22x.06mm), Bottom tie rod of ("U" GI channel size of 15x15x1mm) etc. complete as per manufacturers specification for finished item of work. <b>Maximum door frame size : 980 x 2070 .</b> B) Providing of 35mm thick Factory made Prelaminated ABS (Acrylonitrile Butadiene 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	Each	<b>14189</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		high density craft paper honey comb board, sandwiched on both sides with prelaminated 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		
743	BMT-N.69	Supply and fixing of Bath room / Toilet door shutter with 16mm <b>laminated</b> (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	<b>2265</b>
744	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 laminatedshutter 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	<b>3230</b>
745	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.	Sqm.	<b>960</b>
746	BMT-N.74	The shutter frame made out of PVC extruede 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	1 Sqm	<b>1924</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		"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.		
747 to 750	BMT-N.75 to BMT-N.78	<b>ITEMs DELETED</b>		
751	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	<b>350</b>
752	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	<b>375</b>
753	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	<b>431</b>
754	BMT-N.84	<p>Providing and fixing factory made uPVC white colour casement/Casementcum fixed glazed door comprising of uPVC multi-chambered frame, sashand mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll formingprocess of required length (shape &amp; size according to Upvc profile),uPVC extruded glazing beads of appropriate dimension,EPDMgasket,zinc alloy (white powder coated) 3D hinges and one handle oneach side of panels along with zinc plated mild steel multi point lockinghavingtransmission gear, cylinder with keeps and one side key, G.lfasteners100 x 8 mm size for fixing frame to finished wall and necessarystainlesssteel screws, etc. Profile of frame &amp; sash shall be mitred cut andfusion welded at all corners, mullion (if required) shall be also fusionweldedincluding drilling of holes for fixing hardware's and drainage ofwater etc.After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required sizeand of approved quality, all complete as per approved drawing &amp; directionof Engineer-in-Charge inclusive of cost of Single / double glass panes and silicon sealent .</p> <p><b>Note: For uPVC frame, sash and mullion extruded profiles minus 5%tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable.Variation in profile dimension in higher side shall be acceptedbut no extra payment on this account shall be made.</b></p>		
755	BMT-N.84.A	Casement door with 3D hinges made of (big series) frame	1 sqm	8217

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		67x 64 mm & sash 67 x 110 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm).		
756	BMT-N.84.B	Casement door with top hung ventilator with 3D and S.S. frictionhinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 64 mm, sash 67 x 110 mm & mullion 67 x 80 mm all having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension.(Area of door upto 2.50 sqm)	1 sqm	8395
757	BMT-N.85	Providing and fixing factory made uPVC white colour sliding glazed door comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension uPVC extruded glazing beads, uPVC extruded interlock and uPVC extruded inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle with key on one side of extreme panels along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) crescent lock (if required), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge inclusive of cost of Single / double glass panes, wire mesh and silicon sealant. <b>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.</b>		
758	BMT-N.85.A	Two track two panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	1 sqm	5404
759	BMT-N.85.B	Three track three panels sliding door with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	1 sqm	6996
760	BMT-N.86	Providing and fixing of factory made of High Density High	1 sqm	11249

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<p>MoistureResistant Wood Fibre (HDHMR) single shutter Duradoor made up of FRAME: Door frame manufactured with High Density High MoistureResistant Wood Fibre (HDHMR) of 36mm width x 100mm depth , laminated with 0.2mm thick PVC Foil using hot press andPUR adhesive, fitted with Gasket for energy efficiency and noise protection,affixed to the wall using high strength expandable PU Foam/ self-expandable wall fixing screws.Max dimensions in MM of 280 (depth) x 2440 (height)SHUTTER: Factory made 41mm thick shutter sandwiched with High Density High Moisture ResistantWood Fibre (HDHMR) of 5.5mm thick skinson both sides and HDHMR of 30mm thickness as skeleton,core of high density Honey Comb and Laminated Veneer Lumber (LVL) for holding the lock body andhardware, laminated with 0.2mm thick PVC Foil and edge-banded with 1mm thick PVCedge-band using hot press and PUR adhesives. Max dimensions in MM of 1200 (width) x 41(thickness) x 2400 (height),</p> <p><b>ARCHITRAVE:</b> Factory made Architrave of size 80mm x 12mm fitted to pre-made grooves within the frame for addedaesthetics. Four design variants available, made with Density High Moisture Resistant Wood Fibre(HDHMR) of different thicknesses depending on the design variant, laminated with 0.2mm thickPVC Foil using hot press and PUR adhesive, fitted to the wall using strong quick actingadhesives.</p> <p><b>HARDWARE &amp; ACCESSORIES:</b> Imported hardware including door handles – 1 no, cylindrical magnetic lock -1 no ,SS hinges – 3 nos. Including cost and conveyance of all material, Hardware, Labour charges and transportation complete for finished item of work</p>		
761	BMT-N.87	<p>Supply and fixing of Bath/Toilet <b>Door frame and shutter</b> with 8mm laminated (IS.15786)using with 50mmx35mmx1.3mmthick aluminum door frame of weight 220grm per Rft with a rebate of 30 mm for provision for shutter , shutter made with 45mmx25mmx1.3mm thick aluminum section of weight 210grms per Rft with 8mm groove to accommodate 8mm thick laminated (IS.15786) and shutter having 3nos of ss 304gr Butt hinges of 100mm long, 100mm aluminum handles -2nos, and also 2 nos of 200mmx12mm aluminum aldrops ,the rates inclusive of all labor fixing at site and 50microns Ivory powder coated for aluminum door frame and shutter sections etc complete finished item of work .</p>	1 sqm	<b>4872</b>
762	BMT-N.88	<p>Providing and fixing 28 -30 MM thick solid Wood Polymer Composite(WPC) single extruded door shutter with 3MM top and bottom rigid layer with an overall density of 750kg/Cum. It will be fixed to the frame using 3 inch /4 inch hinges. A minimum of 4 hinges will be required for fixing the door with the frame</p>	1 sqm	<b>3030</b>
	<b>IV.SUB-SECTION</b>	<b>CUP-BOARD DOORS</b>		
763	BMT-N.24	Supply and fixing of Cement Bonded Particle Board (IS	1 sqm	<b>2210</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		14276) <b>cup board</b> 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.		
764	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, 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 ¾" x ¾" , 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.	1 Sqm	<b>3540</b>
765	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	<b>3710</b>
	<b>P.SECTION</b>	<b>WINDOWS</b> <b>(Landing cost – including loading, cost of conveyance, unloading)</b>		
	<b>I.SUB-SECTION</b>	<b>OPENABLE WINDOWS</b>		
		<b>Supply and fixing of pre-painted steel openable windows</b> base steel as per IS 513 of -0.58 mm thick 'D' quality, galvanized as per IS 277 , 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 with 5 mm thick plain float glass fitted with Ethyl propylene Diamine monomer Gasket (EPDM) and handle made of high grade aluminium powder coated with 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 .		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
766	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
767	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
768	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
769	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
770	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
771	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
772	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
773	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
774	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
		Providing and fixing of <b>Openable Windows</b> 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.		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
775	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
776	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
777	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
778	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
779	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 <b>Openable Windows with Fly-mesh</b> 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 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		
780	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
781	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
782	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	1 Sqm	7288

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		mullion section should be of 72x50mm.		
783	BMT-P.24	Centre fixed both side openable shutter window 5'0"x4'0" (1524mm x1219.2mm). 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
784	BMT-P.25	Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x1219.2mm). 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
785	BMT-P.30	ITEM DELETED		
786	BMT-P.31	ITEM DELETED		
787	BMT-P.32	Galvanized powder coated <b>Casement Windows with openable shutters</b> 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
788	BMT-P.33	Galvanized powder coated <b>Casement Windows with openable shutters</b> 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 - 1530 x 1372 or above size	1 Sqm	4630

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
789	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
790	BMT-P.35	Galvanized powder coated <b>Casement Windows with openable shutters</b> 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 - 1530 x 1372 or above size	1 Sqm	5969
791	BMT-P.36	Providing & Fixing of <b>Mesh windows</b> 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 <b>Fly mesh shutter</b> 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	1 Sqm	4333

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		the frames in the concrete/masonry wall by means of self expanding screws complete for finished item of work.		
		Providing and fixing of <b>Openable / Casement Windows</b> 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.		
792	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	<b>4625</b>
793	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	<b>4917</b>
794	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	<b>4917</b>
795	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	<b>4333</b>
796	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	<b>4333</b>
		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		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.		
797	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
798	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
799	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
800	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
801	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		
802	BMT-P.73	<b>ITEM DELETED</b>		
		Supplying and fixing of <b>WINDOWS</b> with Pre laminated Cement Bonded Particle boards and Pre-Painted Steel Sections (PPS)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 form 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		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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.		
803	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
804	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
805	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
806	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
	<b>II.SUB-SECTION</b>	<b>SLIDING WINDOWS</b>		
807	BMT-P.26	Providing and fixing Pre painted Steel <b>sliding Window/Door</b> 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	1 Sqm	6166

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<p>plastic.</p> <p>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 Monomer [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.</p>		
808	BMT-P.27	<b>ITEM DELETED</b>		
809	BMT-P.28	<b>ITEM DELETED</b>		
810	BMT-P.29	<b>ITEM DELETED</b>		
811	BMT-P.37	<p>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 &amp; 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, &amp; EPDM Gaskets for shutters, wool pile for lap strip, Bump Stop Base &amp; 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</p>	1 Sqm	<b>5411</b>
		<p>Providing and fixing of <b>Two shutter Sliding Windows</b> 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</p>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		section of 0.58 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.		
812	BMT-P.38	a) Window with Two Sliding Shutters and without Grill Outer Frame Size 75 mm x 50 mm.	1 Sqm	<b>5411</b>
813	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	<b>5647</b>
		Providing and fixing of <b>Three shutter Sliding Windows</b> 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.		
814	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	1 Sqm	<b>5647</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		fixed horizontally on top and bottom of the shutter frame.		
815	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
816	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
		<b>Window with 3 shutters</b> (Center fixed shutter / Center sliding shutter / center Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm.		
817	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
818	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
819	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
820 to 822	BMT-P.70 to P.72	<b>ITEM DELETED</b>		
823	BMT-P.78	Providing and fixing factory made uPVC white colour casement/casementcum fixed <b>glazed windows</b> comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<p>rollforming process of required length (shape &amp; size according to uPVCprofile), uPVC extruded glazing beads of appropriate dimension, EPDMgasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size forfixing frame to finished wall, plastic packers, plastic caps and necessarystainless steel screws etc. Profile of frame &amp; sash shall be mitred cutand fusion welded at all corners, mullion (if required) shall be also fusionwelded including drilling of holes for fixing hardware's and drainage ofwater etc. After fixing frame the gap between frame and adjacent finishedwall shall be filled with weather proof silicon sealant over backer rod ofrequired size and of approved quality, all complete as per approveddrawing &amp; direction of Engineer-in-Charge inclusive of cost of Single / double glass panes and silicon sealant .</p> <p><b>Note: For uPVC frame, sash and mullion extruded profiles minus 5%tolerancein dimension i.e. in depth &amp; width of profile shall be acceptable.Variation in profile dimension in higher side shall be acceptedbut no extra payment on this account shall be made.</b></p>		
824	BMT-P.78.A	Casement window double panels with top fixed with S.S. frictionhinges (350 x 19 x 1.9 mm) made of (small series) frame47 x 50mm, sash 47 x 68 mm & mullion 47 x 68 mm allhaving wall thickness of $1.9 \pm 0.2$ mm and single glazing beadofappropriate dimension. ( Area of window upto 2.50 sqm).	Sqm	6283
825	BMT-P.78.B	Casement cum fixed panel window having both end single casement panel, middle fixed panels and at top completely fixed ventilator with S.S friction hinges (350 x 19 x 1.9) madeof (big series) frame 67 x 60 mm , sash 67 x 80 mm &mullion 67 x 80 mm all having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead/double glazing bead of appropriatedimension. (Area of window above 3.00 sqm upto 5.00 sqm).	Sqm	6517
	BMT-P.79	Providing and fixing factory made uPVC white colour fixed <b>glazedwindows / Ventilators</b> comprising of uPVC multi-chambered frame andmullion (where ever required) extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile),uPVC extruded glazing beads of appropriate dimension, EPDM gasket,G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plasticpackers, plastic caps and necessary stainless steel screws etc. Profileof frame shall be mitred cut and fusion welded at all corners, mullion (ifrequired) shall be also fusion welded including drilling of holes for fixinghardware's and drainage of water etc. After fixing frame the gap betweenframe and adjacent finished wall shall be filled with weather proof siliconsealant over backer rod of required size and of approved quality, allcomplete as per approved drawing & direction of Engineer-in-Charge inclusive of cost of Single / double		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		glass panes and silicon sealant. <b>Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted. But, no extra payment on this account shall be made.</b>		
826		Fixed windows / Ventilators made of (small series) frame 47 x 50mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension.	1 Sqm	5830
827	BMT-P.80	Providing and fixing factory made uPVC white colour <b>sliding glazed window</b> upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge inclusive of cost of Single / double glass panes, wire mesh and silicon sealant. <b>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted. But no extra payment on this account shall be made.</b>		
828	BMT-P.80.A	Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm)	1 Sqm	6038
829	BMT-P.80.B	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	1 Sqm	8058
830	BMT-P.80.C	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm upto 2.50 sqm).	1 Sqm	6220
831	BMT-P.81	Providing and fixing factory made uPVC white colour <b>sliding</b>	1 Sqm	6174

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		<p><b>glazed window</b> above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with <math>1.60 \pm 0.2</math> mm thick galvanized mild steel section made from rollforming process of required length (shape &amp; size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi pointlocking having transmission gear with keeps, zinc alloy (white powdercoated) touch lock with hook (if required for wire mesh panel), stainlesssteel (SS 304 grade) body with adjustable double nylon rollers (weightbearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame &amp; sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing &amp; direction of Engineer-in-Charge inclusive of cost of Single / double glass panes, wire mesh and silicon sealant . <b>Two track two panels sliding window</b> made of (big series) frame 67 x 50 mm &amp; sash 46 x 62 mm both having wall thickness of <math>2.3 \pm 0.2</math> mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 2.50 sqm upto 4.00 sqm.)</p> <p><b>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted . But no extra payment on this account shall be made.</b></p>		
	<b>III.SUB-SECTION</b>	<b>VENTILLATORS</b>		
		<p>Providing and fixing of <b>top hung Ventilators</b> 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.</p>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
832	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
833	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 45mm, shutter frame section size of 52 x 25mm, vertical mullion section size of 80 x 60 mm	1 sqm	5550
834	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
835	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
836	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
837	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 <b>top hung Ventilator with fly mesh</b> 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.		
838	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
839	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
840	BMT-P.64	Double openable fix shutter window size of 4'0" x 3'0"	1 sqm	6865

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		(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		
841	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
842	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, vertical mullion section size of 100 x 60 mm	1 sqm	4625
843	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
		<i>Note: The above rates are for normal finish, 10% extra may be allowed for Wood Grain finish</i>		
		Supplying and fixing of Top Hung 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, The Ventilator to be panelled 4 mm pinhead glass with Ethyl propylene Diamine monomer Gasket (EPDM) and the sections cut to length mitre joined with corner bracket 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.		
844	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
845	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
846	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
		Supplying and fixing of 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, The section for louvered ventilators should be of 33 x 56 mm Box section paneled with 4 mm pinhead glass with Ethyl		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		propylene Diamine monomer Gasket (EPDM) and the sections cut to length mitre joined with corner bracket . corner brackets made of CRCA with Zinc Phosphate. The frames to be 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.		
847	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
848	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
849	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
850 to 853	BMT-P.68 to P.75	<b>ITEMS DELETED</b>		
854	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

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
	<b>Q.SECTION</b>	<b>STRUCTURAL GLAZING</b>		
	<b>I.SUB-SECTION</b>	<b>FIXED GLAZING</b>		
854	BMT-Q.08	<b>ITEM DELETED</b>		
855	BMT-Q.09	<b>ITEM DELETED</b>		
	<b>II.SUB-SECTION</b>	<b>STRUCTURAL GLAZING</b>		
856	BMT-Q.01	Providing and fixing <b>Structural Glazing</b> 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 complete for finished item of work.	1 Sqm	<b>6625</b>
857	BMT-Q.02	Providing and fixing Top Hung shutters in <b>Structural Glazing</b> 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,	1 Sqm	<b>5355</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		incidental charges, cost of all consumables etc. and fixing charges etc for finished item of work		
	<b>III</b>	<b>CURTAIN WALLING</b>		
858	BMT-Q.03	Supplying and fixing of <b>curtain Glazing</b> 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	<b>5466</b>
859	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	<b>5466</b>
860	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	<b>4295</b>
861	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	<b>4295</b>
862	BMT-Q.07	<b>ITEM DELETED</b>		
	<b>S.SECTION</b>	<b>DISMANTLING clearing away and carefully stacking materials useful for reuse.</b>		
863	BMT-S.01	Stone masonry in cement mortar	1 Cum	<b>390</b>
864	BMT-S.02	Terracing work in roofs or floors	10 Sqm	<b>165</b>
865	BMT-S.03	Flat stones in roof or floors including lifting	10 Sqm	<b>143</b>
866	BMT-S.04	Pan tiled or Mangalore tiled roof without roof timbers.	10 Sqm	<b>120</b>
867	BMT-S.05	Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	10 Sqm	<b>143</b>
868	BMT-S.06	Wrought and framed timber in roofs or floors	1 Cum	<b>206</b>
869	BMT-S.07	Old lime mortar plaster	10 Sqm	<b>44</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
870	BMT-S.08	Old cement mortar plaster	10 Sqm	55
871	BMT-S.09	Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	65
872	BMT-S.10	Revetment for aprons and stacking grouted within 40 lead	1 Cum	48
873	BMT-S.11	Kadapa slabs or Shahabad stone slabs flooring on sand bed	10 Sqm	66
874	BMT-S.12	Through scraping of old plastered surface	10 Sqm	44
875	BMT-S.13	Washing of plastered surface with soap, soda and water (or with soda lime and water)	10 Sqm	14
876	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	44
877	BMT-S.15	Clean removal of cement plaster from walls and raking out joint 200 mm deep	10 Sqm	54
	<b>T.SECTION</b>	<b>READY MIX CONCRETE</b>		<b>DELETED</b>
	<b>U.SECTION</b>	<b>EXPANSION JOINT FILLERS</b>		
878	BMT-U.01	Supply of high performance expansion joint filler board conforming to M.O.S.T - 18 mm THICK	1 Sqm	656
879	BMT-U.02	Supply of high performance expansion joint filler board conforming to M.O.S.T - 20 mm THICK	1 Sqm	735
880	BMT-U.03	Supply of high performance expansion joint filler board conforming to M.O.S.T - 25 mm THICK	1 Sqm	919
881	BMT-U.04	Supply of expansion joint filler board for buildings, columns, beams and slabs 20 mm THICK	1 Sqm	263
882	BMT-U.05	Supply of expansion joint filler board for buildings, columns, beams and slabs 25 mm THICK	1 Sqm	329
883	BMT-U.06	Supply of expansion joint filler board for buildings, columns, beams and slabs 50 mm THICK	1 Sqm	656
884	BMT-U.07	Supply of back up to cold applied sealant in construction and longitudinal joint - 10 mm OD	1 RM	11
885	BMT-U.08	Supply of back up to cold applied sealant in construction and longitudinal joint - 12 mm OD	1 RM	13
886	BMT-U.09	Supply of back up to cold applied sealant in construction and longitudinal joint - 15 mm OD	1 RM	15
887	BMT-U.10	Supply of back up to cold applied sealant in construction and longitudinal joint - 20 mm OD	1 RM	21
888	BMT-U.11	Supply of back up to cold applied sealant in construction and longitudinal joint - 25 mm OD	1 RM	27
	<b>V.SECTION</b>	<b>LABOUR CHARGES</b>		
889	BMM-V.01	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) -	1 cum	242

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		Other than sandy soil - 0.0 M to 1.0 M		
890	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
891	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
892	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
893	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
894	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
895	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
896	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
897	BMM-V.09	Rounding the edges of Kadapa / Shahabad stone slabs of any thickness including polishing the same	1 Rm	105
898	BMM-V.10	Half Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	318
899	BMM-V.11	Full Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	412
900	BMM-V.12	Machine Cutting charges - for Marble/ Granite slabs up to 50 mm thick by mechanical device.	1 RM	17
901	BMM-V.13	Flat nosing to Kadapa/ Shahabad stone slabs of any thick	1 Rm	50
902	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 position	1 Kg	27
903	BMM-V.15	Labour charges for fixing Iron Doors, Iron Windows and Window Grills in position	1 Kg	5
904	BMM-V.16	Labour charges for fabricating all heavy steel works like Trusses, Stanchions, Heavy Beams and Girders including	1 Kg	24

<b>S. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
		cost of welding rods, power charges, etc excluding cost of fixing in position		
905	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	<b>21</b>
906	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	<b>131</b>
907	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	<b>1756</b>
908	BMM-V.20	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Etching works	1 Sqm	<b>955</b>
909	BMM-V.21	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Reverse Etching work	1 Sqm	<b>1182</b>
910	BMM-V.22	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Acid wash works	1 Sqm	<b>1477</b>
911	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	<b>383</b>
912	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	<b>286</b>
913	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	<b>1570</b>
914	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	<b>1484</b>
915	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	<b>1302</b>
916	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 wood Ledged, braced and planked doors including frame	1 sqm	<b>1028</b>
917	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	<b>785</b>

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
918	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	<b>1005</b>
919	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	<b>1515</b>
920	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	<b>1034</b>
921	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	<b>1237</b>
922	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	<b>833</b>
923	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	<b>1053</b>
924	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	<b>592</b>
925	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	<b>689</b>
926	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	<b>1452</b>
927	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	<b>1388</b>

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
928	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	<b>1204</b>
929	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	<b>942</b>
930	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	<b>754</b>
931	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	<b>940</b>
932	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	<b>1401</b>
933	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	<b>957</b>
934	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	<b>1143</b>
935	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	<b>810</b>
936	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 than teakwood Swing ventilators glazed including outer frame and shutter frame	1 sqm	<b>1012</b>
937	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	<b>563</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
938	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
939	BMM-V.51	Grooves 2-3 mm	1 Rm	55
	<b>W.SECTION</b>	<b>MISCELLANEOUS ITEMS</b>		
940	BMS-W.01	Supplying Aluminium anodised Sections for Doors, partitions, windows, Ventilators (including annodization cost)	1 Kg	306
941	BMS-W.02	Sun Control film to the glazed windows partition including labour charges.	1 sqm	313
942	BMS-W.03	Aluminium Venetian Blinds horizontal 25.4 mm wide with all accessories.	1 sqm	798
943	BMS-W.04	Aluminium Venetian Blinds horizontal 20.0 mm wide with all accessories.	1 sqm	760
944	BMS-W.05	Venetian blinds Vertical blinds 100 mm wide with all accessories.	1 sqm	1290
945	BMS-W.06	Rubber Beading	1 RM	2
946	BMS-W.09	Chlorpyrifos/ Lindane emulsifiable concentrate of 20%	1 Litre	217
947	BMS-W.10	Soft Brush	Each	141
948	BMS-W.11	Wire Brush	Each	31
949	BMS-W.12	Supplying and fixing <b>aluminium composite cladding with skin material 0.25 mm thick aluminium sheet</b> 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 - <b>3 mm thk</b>	1 Sqm	2189
950	BMS-W.13	Supplying and fixing <b>aluminium composite cladding with skin material 0.25 mm thick aluminium sheet</b> 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 - <b>4 mm thk</b>	1 Sqm	2387
951	BMS-W.14	Supplying and fixing <b>aluminium composite cladding with skin material 0.5 mm thick aluminium sheet</b> 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	1 Sqm	2678

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		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		
952	BMS-W.15	CEMENT JALI - 25 mm thick	1 sqm	191
953	BMS-W.16	CEMENT JALI - 40 mm thick	1 sqm	248
954	BMS-W.17	CEMENT JALI - 50 mm thick	1 sqm	340
955	BMS-W.18	Aluminium sheet 24 Gauge	1 Sqm	256
956	BMS-W.19	7.5mm thick Aluminium Grill (as approved by the department) 3.58 Kg/Sqm.	1 Sqm	941
957	BMS-W.20	Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1" (25.4 mm ) thick	1 Sqm	839
958	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.		
959	BMS-W.22	Circular sign plate Dia 400mm.	Each.	488
960	BMS-W.23	Circular sign plate Dia 600mm.	Each.	1284
961	BMS-W.24	Circular sing plate Dia 870mm	Each.	2574
962	BMS-W.25	Triangular sign plate 600mm.	Each.	659
963	BMS-W.26	Triangular sign plate 900mm.	Each.	1489
964	BMS-W.27	Square sign plate 600mm.	Each.	1194
965	BMS-W.28	Square sign plate 1000mm.	Each.	4433
966	BMS-W.29	<b>ITEM DELETED</b>		
		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 base plates, templates & anchor bolts along with civil foundation designs & drawings for the finished item of work		
967	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
968	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	1 Sqm	1312

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
		fixed together with 30 mmx30mmx30mm wood pieces along width & length wherever necessary		
969	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
970	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
971	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
972	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
973	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
974	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
975	BMS-W.40	Painting:-1) Steel structure is to be painted with 2 coats of Grade I enamel paint.	1 Sqm	114
976	BMS-W.41	2) Exterior walls are painted with one coast of primer and 2 coats of exterior emulsion paint .	1 Sqm	102
977	BMS-W.42	3) Interiors are painted with 1+2 coat of O.B.D.	1 Sqm	85
978	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 excluding cost of WC/ Wash basin etc	Each	998
979	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
980	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
981	BMS-W.47	Preparing gabions with jungle wood	Each	3

<b>S. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
982	BMS-W.48	Planting plants	Each	<b>2</b>
983	BMS-W.49	Pruning plants	Each	<b>3</b>
984	BMS-W.50	Maintaining avenues including fencing, weeding, mulching, watering etc per plant.	Each	<b>7</b>
985	BMS-W.51	- do - When scattered in hot weather with extra conveyance from March to June	Each	<b>8</b>
986	BMS-W.52	Hoisting or lowering of slab	1 cum	<b>111</b>
987	BMS-W.53	Dressing faces of granite stone (double line dressing)	1 Sqm	<b>183</b>
988	BMS-W.54	Dressing faces of other than granite stone(double line dressing)	1 Sqm	<b>114</b>
989	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	<b>386</b>
990	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	<b>377</b>
991	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	<b>339</b>
992	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	<b>318</b>
993	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	<b>260</b>
994	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	<b>232</b>
995	BMS-W.61	75 mm long screws -	1 Each	<b>4</b>
996	BMS-W.62	G.I scam bolts & nuts	1	<b>5</b>

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
			Each	
997	BMS-W.63	G.I bolts & nuts	1 Each	5
998	BMS-W.64	G.I 'J' bolts 8 mm dia	1 Each	9
999	BMS-W.65	G.I Washers	1 Each	2
1000	BMS-W.66	Limpet washers (for scam & 'J' bolts)	1 Each	2
1001	BMS-W.67	Bitumen washers	1 Each	2
1002	BMS-W.68	White Cement	1 Kg	27
1003	BMS-W.69	MS Z Hold fasts - 300 mm long of 40 x 40 x 5 mm ISA	1 Each	32
1004	BMS-W.70	Rubber/ Nylon door stop bushes	1 Each	9
1005	BMS-W.71	Nylon rollers for sliding glasses/ alluminium windows	1 Each	14
1006	BMS-W.72	Powder coating or colour annodization- any section	1 RM	45
1007	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
1008	BMS-W.74	Box hinges for cup boards	1 Each	40
1009	BMS-W.75	Magnetic Catchers	1 Each	14
1010	BMS-W.76	Drilling holes in hard rock surfaces up to 18mm dia	1 RM	187
1011	BMS-W.77	Drilling holes in hard rock above 18mm dia	1 RM	261
1012	BMS-W.78	Making holes up to 18mm dia in RCC/ any stones up to 50 mm thick	1 Each	32
1013	BMS-W.79	Making holes above 18mm dia in RCC/ any stones above 50 mm thick	1 Each	44
1014	BMS-W.80	Pressure grouting the drilled holes with neat cement slurry or with approved epoxy bonding agent using pump	1 Each	45
1015	BMS-W.81	ITEM DELETED		
1016	BMS-W.82	ITEM DELETED		
		<b>CASURINA BALLIES / STEEL BARRICADING</b>		

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
1017	BMS-W.83	Fixing steel barricading with MS Angle Iron Pegs and GI Pipes with nuts & bolts duly excavating pits and its removal after the function is over including transporting of the entire barricading materials from the Divisional stores to the barricading site duly engaging labour to load, transport and unload the materials at barricading site & as per the schedule given by the departmental authorities and loading back into the trucks, unloading at Divisional stores, accounting for the received materials, labour for loading, unloading, fixing, handling etc, complete for finished item of work		
		2-TIER (3 days)	1 RM	35.01
	BMS-W.84	Providing barricading arrangement with casurina ballies as per the design duly excavating pits and its removal after the function is over including hire charges of the barricading materials a sper the schedule given by the departmental authorities complete for finished item of work		
1018	BMS-W.84.A	2-TIER (2 days)	1 RM	43.63
1019	BMS-W.84.B	2-TIER (3 days)	1 RM	43.82
1020	BMS-W.84.C	2-TIER (4 days)	1 RM	44.00
1021	BMS-W.84.D	3-TIER (2 days)	1 RM	45.63
1022	BMS-W.84.E	3-TIER (3 days)	1 RM	45.92
1023	BMS-W.84.F	3-TIER (4 days)	1 RM	46.20
		<b>Testing charges</b>		
	BMS-W.85	<b>Coarse Aggregates</b>		
1024	BMS-W.85.A	Gradation Test	1 No.	600
1025	BMS-W.85.B.	Aggregate Impact Value Test	1 No.	600
1026	BMS-W.85.C	Flakiness and Elongation Indices Tests	1 No.	700
1027	BMS-W.85.D	Water absorption Test	1 No.	550
1028	BMS-W.85.E	Abrasion Test	1 No.	850
1029	BMS-W.85.F	Specific Gravity Test	1 No.	600
	BMS-W.86	<b>Fine Aggregates</b>		
1030	BMS-W.86.A	Sieve Analysis Test	1 No.	600
1031	BMS-W.86.B	Bulking & Moisture content	1 No.	600
1032	BMS-W.86.C	Specific Gravity Test	1 No.	600
	BMS-W.87	<b>Cement</b>		
1033	BMS-W.87.A	Fineness of cement Test	Each	600
1034	BMS-W.87.B	Initial & Final setting time of cement	Each	600
	BMS-W.88	<b>Bricks</b>		
1035	BMS-W.88.A	Compressive strength of Bricks	Each	350
1036	BMS-W.88.B	Water absorption Test for Brick	Each	550

S. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
	BMS-W.89	<b>Concrete</b>		
1037	BMS-W.89.A.	Compressive strength of concrete i.e Cube strength test	Each	350
1038	BMS-W.89.B	Design mix of one grade		16000
1038	BMS-W.89.C	Design mix of Two grades		26000
1040	BMS-W.89.D	Design mix of three grades		36000
1041	BMS-W.89.E	Design mix of four grades		43000
1042	BMS-W.89.F	Design mix of five grades		51000
		<b>Steel</b>		
1043	BMS-W.90	Tensile Strength of Each Dia 1 set (3 rods)	Each	700
	BMS-W.91	<b>Soils</b>		
1044	BMS-W.91.A	G.S.B Mix design	Each	5000
1045	BMS-W.91.B	W.M.M Mix design	Each	6100
1046	BMS-W.91.C	B.M Mix design	Each	7500
1047	BMS-W.91.D	SDBC/BC	Each	8100
1048	BMS-W.91.E	UD samples	Each	1800
1049	BMS-W.91.F	Soils MDD and CBR	Each	3700
	<b>Note: Item BMS-W.46 is removed in the section W and is brought as new item in the Section N as BMT-N.82.</b>			
	<b>X.</b>	<b>MACHINERY CHARGES, HIRE CHARGES FOR CENTRING</b>		
1050	BMC-X.01	Machine charges of rubbing/ polishing floor	1 day	1749
1051	BMC-X.02	Power Saw Cutter - Hand Operated - Hire charges	1 Hr	102
1052	BMC-X.03	Power Drill - Hand Operated - Hire Charges	1 Hr	95
1053	BMC-X.04	Grinding Mortar (Spl Grinding)	1 day	874
1054	BMC-X.05	Casuarina Balli Props - 3" to 4" dia - 12'-0" Height	Each	60
1055	BMC-X.06	Casuarina Balli Props - 4" to 8" dia - 20'-0" Height	Each	99
1056	BMC-X.07	Wall Plate Brackets / beam bottom supports	Each	174
1057	BMC-X.08	Wedge Plate fixture	Each	9
1058	BMC-X.09	Runner beams of approximately 4" x 4" size	RM	347
1059	BMC-X.10	Steel Plates for form works	1 sqm	1312
1060	BMC-X.11	Scaffolding Pipes & Centering accessories	1 Kg	99
1061	BMC-X.12	Scaffold Boards - Bamboo scaffolds - Bamboos - 8'0" long	Each	107
1062	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
1063	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 2019-20	Unit of Measurement
1	2	3	4	5	6
<b>HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING</b>					
A	FOOTINGS	Rs. 288	Rs. 631	Rs. 919	per 1 cum
B	BED BLOCKS, BANDS	Rs. 64	Rs. 341	Rs. 405	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
<b>HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - Unsupported Height upto 3.66 M</b>					
<b>Steel scaffolding pipes, jack Props, wallers, Foot plates, brackets, steel Centering Plates, etc.,</b>					
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. 226	Rs. 462	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs. 243	Rs. 233	Rs. 476	per 1 sqm
K	SLABS - above 300 mm thick	Rs. 254	Rs. 244	Rs. 498	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	DELETED			

<b>HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - Unsupported Height upto 3.66 M Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc.,</b>					
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. 175	Rs. 333	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs. 163	Rs. 181	Rs. 344	per 1 sqm
K	SLABS - above 300 mm thick	Rs. 170	Rs. 189	Rs. 359	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, WATERTANK WALLS	DELETED			

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
<b>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)</b>					
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

**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**

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
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
Material Hire for any Floor	H	1180	233	355	2085	236	243	254	858	602		2370	2404	3833	292
Labour Charges for 1st Floor	L	1615	248	2268	1903	215	222	232	783	549		2163	2193	3496	267
Total Hire Charges (H+L)	T	2795	481	2623	3988	451	465	486	1641	1151		4533	4597	7329	559
1st - Floor	L	1615	248	2268	1903	215	222	232	783	549		2163	2193	3496	267
2nd - Floor	L	1777	273	2495	2093	237	244	255	861	604		2379	2412	3846	294
3rd - Floor	L	1938	298	2722	2284	258	266	278	940	659		2596	2632	4195	320
4th - Floor	L	2100	322	2948	2474	280	289	302	1018	714		2812	2851	4545	347
5th - Floor	L	2261	347	3175	2664	301	311	325	1096			3028	3070	4894	374
6th - Floor	L	2423	372	3402	2855	323	333	348	1175	824		3245	3290	5244	401
7th - Floor	L	2584	397	3629	3045	344	355	371	1253	878		3461	3509	5594	427
8th - Floor	L	2746	422	3856	3235	366	377	394	1331	933		3677	3728	5943	454
9th - Floor	L	2907	446	4082	3425	387	400	418	1409	988		3893	3947	6293	481
10th - Floor	L	3069	471	4309	3616	409	422	441	1488	1043		4110	4167	6642	507
11th - Floor	L	3230	496	4536	3806	430	444	464	1566	1098		4326	4386	6992	534
12th - Floor	L	3392	521	4763	3996	452	466	487	1644	1153		4542	4605	7342	561
13th - Floor	L	3553	546	4990	4187	473	488	510	1723	1208		4759	4825	7691	587
14th - Floor	L	3715	570	5216	4377	495	511	534	1801	1263		4975	5044	8041	614
15th - Floor	L	3876	595	5443	4567	516	533	557	1879	1318		5191	5263	8390	641
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;"><b>CENTERING &amp; SCAFFOLDING CHARGES- FLOOR WISE RATES</b>  for Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates, Steel Centring Plates etc., for unsupported height 3.66 M</p>														
FLOOR		LINTEL S	CHAJJAS - SUNSHADE S	COLUMN S	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 BEAM S - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLAB S	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
<b>Total Hire Charges (H+L)</b>	<b>T</b>	<b>2041</b>	<b>348</b>	<b>1995</b>	<b>2868</b>	<b>325</b>	<b>335</b>	<b>350</b>	<b>1182</b>	<b>828</b>	<b>3261</b>	<b>3307</b>	<b>5274</b>	<b>403</b>
<b>1st - Floor</b>	<b>L</b>	<b>1251</b>	<b>192</b>	<b>1757</b>	<b>1473</b>	<b>167</b>	<b>172</b>	<b>180</b>	<b>607</b>	<b>425</b>	<b>1675</b>	<b>1698</b>	<b>2708</b>	<b>207</b>
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
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														

**Note:-**

- 1) All Materials conforming to ISI or relevant International Standards shall be used in all CIVIL, Water Supply & Sanitary Fittings, Electrical and Electro-Mechanical Works.
- 2) Concerned departments shall approve the materials either from the manufacturer or from its authorized /certified dealer only and also to approve the brands of the products / materials to be adopted in their estimates at their end. In case common approval is required by the committee, concerned authority shall propose with all the details after thorough verification, to the committee for considering the proposal.
- 3) SSR rates for Civil and Water supply & Sanitary items are purely for 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.
- 4) The rates published in the Buildings SoR 2019-20 are the ceiling rates only and the estimate preparing authorities are responsible for the correctness and reasonableness of the rates and technical specifications adopted in the estimates.

# WATER SUPPLY & SANITARY ITEMS

## INDEX FOR Buildings SoR:2019-20 (WATER SUPPLY & SANITARY ITEMS)

Sl. No	SECTION	DESCRIPTION OF THE ITEM	FROM	TO
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### WATER SUPPLY & SANITARY ITEMS

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
1	2	3	4	5
<b>A</b>		<b>S.W.G. PIPES &amp; FITTINGS</b>		
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	<b>378</b>
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	<b>376</b>
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	<b>559</b>
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	<b>550</b>
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	<b>232</b>
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	<b>288</b>
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	<b>205</b>
8	BMW-A.08	b) - do - labour charges only	1 RM	<b>10</b>
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	<b>284</b>
10	BMW-A.10	b) - do - labour charges only	1 RM	<b>49</b>
11	BMW-A.11	a) Supplying & Laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	<b>79</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
12	BMW-A.12	b) - do - labour charges only	1 RM	<b>37</b>
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	<b>146</b>
14	BMW-A.14	b) - do - labour charges only	1 RM	<b>51</b>
15	BMW-A.15	Supply of SWG SP-1 Pipe conforming to ISI 651- 4" dia (101.6mm)	1 RM	<b>153</b>
16	BMW-A.16	Supply of SWG SP-1 Pipe conforming to ISI 651- 6" dia (152.4mm)	1 RM	<b>266</b>
17	BMW-A.17	Supply of SWG SP-1 Pipe conforming to ISI 651-8" dia (203.2mm)	1 RM	<b>411</b>
18	BMW-A.18	Supply of SWG SP-1 Pipe conforming to ISI 651- 10" dia (254 mm)	1 RM	<b>752</b>
19	BMW-A.19	Supply of SWG SP-1 Pipe conforming to ISI 651- 12" dia (300 mm)	1 RM	<b>1084</b>
20	BMW-A.20	Supply of SWG SP-1 Pipe conforming to ISI 651- 14" dia (350 mm)	1 RM	<b>1475</b>
21	BMW-A.21	Supply of SWG SP-1 Pipe conforming to ISI 651- 16" dia (400 mm)	1 RM	<b>1778</b>
22	BMW-A.22	Supply of SWG SP-1 Pipe conforming to ISI 651- 18" dia (450 mm)	1 RM	<b>2147</b>
23	BMW-A.23	Supply of SWG SP-2 Pipe conforming to ISI 651- 4" dia (101.6mm)	1 RM	<b>189</b>
24	BMW-A.24	Supply of SWG SP-2 Pipe conforming to ISI 651- 6" dia (152.4mm)	1 RM	<b>281</b>
25	BMW-A.25	Supply of SWG SP-2 Pipe conforming to ISI 651-8" dia (203.2mm)	1 RM	<b>507</b>
26	BMW-A.26	Supply of SWG SP-2 Pipe conforming to ISI 651- 10" dia (254 mm)	1 RM	<b>797</b>
27	BMW-A.27	Supply of SWG SP-2 Pipe conforming to ISI 651- 12" dia (300 mm)	1 RM	<b>1224</b>
28	BMW-A.28	Supply of SWG SP-2 Pipe conforming to ISI 651- 14" dia (350 mm)	1 RM	<b>1587</b>
29	BMW-A.29	Supply of SWG SP-2 Pipe conforming to ISI 651- 16" dia (400 mm)	1 RM	<b>1828</b>
30	BMW-A.30	Supply of SWG SP-2 Pipe conforming to ISI 651- 18" dia (450 mm)	1 RM	<b>2333</b>
31	BMW-A.31	Supply of SWG SP-3 Pipe conforming to ISI 651- 4" dia (101.6mm)	1 RM	<b>241</b>
32	BMW-A.32	Supply of SWG SP-3 Pipe conforming to ISI 651- 6" dia (152.4mm)	1 RM	<b>351</b>
33	BMW-A.33	Supply of SWG SP-3 Pipe conforming to ISI 651-8" dia (203.2mm)	1 RM	<b>621</b>
34	BMW-A.34	Supply of SWG SP-3 Pipe conforming to ISI 651- 10" dia (254 mm)	1 RM	<b>944</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
35	BMW-A.35	Supply of SWG SP-3 Pipe conforming to ISI 651- 12" dia (300 mm)	1 RM	<b>1319</b>
36	BMW-A.36	Supply of SWG SP-3 Pipe conforming to ISI 651- 14" dia (350 mm)	1 RM	<b>1675</b>
37	BMW-A.37	Supply of SWG SP-2 Pipe conforming to ISI 651- 16" dia (400 mm)	1 RM	<b>1928</b>
38	BMW-A.38	Supply of SWG SP-3 Pipe conforming to ISI 651- 18" dia (450 mm)	1 RM	<b>2623</b>
39	BMW-A.39	Supply of SWG Bends conforming to IS standards -100 mm dia	Each	<b>77</b>
40	BMW-A.40	Supply of SWG Bends conforming to IS standards -150 mm dia	Each	<b>142</b>
41	BMW-A.41	Supply of SWG Bends conforming to IS standards -200 mm dia	Each	<b>268</b>
42	BMW-A.42	Supply of SWG Bendsconforming to IS standards -250 mm dia	Each	<b>544</b>
43	BMW-A.43	Supply of SWG Bends conforming to IS standards -300 mm dia	Each	<b>691</b>
44	BMW-A.44	Supply of SWG Bends conforming to IS standards -350 mm dia	Each	<b>863</b>
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	<b>148</b>
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	<b>218</b>
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	<b>238</b>
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	<b>339</b>
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	<b>396</b>
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	<b>455</b>
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	<b>534</b>
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	<b>705</b>
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	<b>873</b>
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	<b>1045</b>
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	<b>762</b>
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	<b>976</b>
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	<b>1189</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>1404</b>
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	<b>1618</b>
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	<b>951</b>
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	<b>1219</b>
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	<b>1487</b>
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	<b>1752</b>
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	<b>2021</b>
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	<b>2287</b>
66	BMW-A.66	Supply of SWG Plugs conforming to IS standards for 100 mm dia	Each	<b>28</b>
67	BMW-A.67	Supply of SWG Plugs conforming to IS standards for 150 mm dia	Each	<b>53</b>
68	BMW-A.68	Supply of SWG Plugs conforming to IS standards for 200 mm dia	Each	<b>102</b>
69	BMW-A.69	Supply of SWG Plugs conforming to IS standards for 250 mm dia	Each	<b>176</b>
70	BMW-A.70	Supply of SWG Plugs conforming to IS standards for 300 mm dia	Each	<b>279</b>
71	BMW-A.71	Supply of SWG Plugs conforming to IS standards for 350 mm dia	Each	<b>350</b>
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	<b>485</b>
73	BMW-A.73	Supply of SWG Gully Traps (Round & Square) conforming to IS standards 150 x 100 mm	Each	<b>220</b>
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	<b>30</b>
75	BMW-A.75	Supply of SWG Saddles conforming to IS standards 150 x 100 mm		<b>156</b>
76	BMW-A.76	Supply of SWG Saddles conforming to IS standards 200 x 100 mm		<b>268</b>
77	BMW-A.77	Supply of SWG Saddles conforming to IS standards 250 x 100 mm		<b>434</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
	B	<b>MAN HOLES &amp; INSPECTION CHAMBERS -AS PER - IS 4111 : Part 1 : 1986</b>		
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	<b>5697</b>
79	BMW-B.02	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 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	<b>8965</b>
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	<b>5518</b>
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	Each	<b>8619</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
		(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.		
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
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 for fixing 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 1st quality ISI marked	Each	262

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (76.2 mm)		
94	BMW-C.09	Supplying & fixing CI Plain bends 1st 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	<b>329</b>
95	BMW-C.10	Supplying & fixing CI Plain bends 1st 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	<b>539</b>
96	BMW-C.11	Supplying & fixing CI Plug (Door) bends 1st 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	<b>322</b>
97	BMW-C.12	Supplying & fixing CI Plug (Door) bends 1st 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	<b>396</b>
98	BMW-C.13	Supplying & fixing CI Plug (Door) bends 1st 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	<b>853</b>
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	<b>72</b>
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 joints and fixing	Each	<b>407</b>
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	<b>628</b>
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	<b>1467</b>
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	<b>344</b>
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	<b>465</b>
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	<b>1096</b>
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	<b>101</b>
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	<b>611</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>739</b>
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	<b>1707</b>
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	<b>530</b>
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	<b>691</b>
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	<b>1600</b>
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	<b>98</b>
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	<b>259</b>
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	<b>360</b>
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	<b>776</b>
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	<b>307</b>
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 fixing- for 101.6 mm (4") C.I. Pipe	Each	<b>406</b>
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	<b>795</b>
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	<b>354</b>
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	<b>456</b>
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	<b>923</b>
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	<b>45</b>
124	BMW-C.39	Supplying & fixing CI floor traps 1st quality ISI marked	Each	<b>465</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
		conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 165 mm dia of weight not less than 5.5 Kgs		
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 practice for 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 practice for 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 ISI marked conforming to IS:2556-Part-3-1981 with "P" or "S" trap: 630 mm Long	Each	934
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

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>215</b>
140	BMW-D.08	Labour charges only for fixing porcelain foot rest for squatting I.W.C. (Rectangular pair)	Pair	<b>69</b>
141	BMW-D.09	Providing Brick masonry seat for Orissa pan/ Indian W.C. using 2nd class bricks as per standard practice	Each	<b>278</b>
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	<b>83</b>
143	BMW-D.11	Supplying & Fixing low down porcelain flushing tank 10 Lit Capacity with internal components	Each	<b>2226</b>
144	BMW-D.12	Labour charges only for fixing low down porcelain flushing tank with internal components	Each	<b>528</b>
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	<b>1784</b>
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	<b>1703</b>
147	BMW-D.15	Labour charges only for fixing European Water Closet with 'P' or 'S' trap as per standard practice	Each	<b>264</b>
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	<b>766</b>
149	BMW-D.17	Labour charges only for fixing plastic seat and lid for European water closet	Each	<b>76</b>
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	<b>8260</b>
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	<b>12044</b>
152	BMW-D.20	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: Special Colour - Grade - III	Each	<b>15326</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>2355</b>
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	<b>2091</b>
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	<b>2551</b>
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	<b>1566</b>
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	<b>1894</b>
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 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	Each	<b>1370</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>1764</b>
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	<b>319</b>
161	BMW-D.29	Supplying and Fixing Pedestal for Wash Hand Basin (H.S.W / Parry / Earthenware)	Each	<b>1084</b>
162	BMW-D.30	Labour charges only for fixing pedestal for wash hand basin	Each	<b>136</b>
163	BMW-D.31	Supplying & Fixing 31.75 mm C.P bottle trap (Heavy type) Parryware or equivalent	Each	<b>390</b>
164	BMW-D.32	Labour charges only for fixing bottle trap to the wash hand basin	Each	<b>45</b>
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	<b>810</b>
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	<b>2385</b>
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	<b>2647</b>
168	BMW-D.36	Labour charges only Fixing flat back Bowl/ Half stall urinals with fixing C.P. Spreader and screws complete	Each	<b>127</b>
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	<b>4319</b>
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	<b>4844</b>
171	BMW-D.39	Labour charges only for fixing Vitreous china porcelain sinks with waste fittings, rubber plug, chain, cantilever brackets etc.	Each	<b>319</b>
172	BMW-D.40	a) S & F 609.6 x 457.2 x 254 mm RCC terrazzo finished sink (or constructed at site with 50.8 mm thick) brass plug	Each	<b>704</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
		and chain including CI cantilever brackets		
173	BMW-D.41	b) - do - labour charges only	Each	225
	<b>E</b>	<b>TAPS &amp; FAUCETS(Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)</b>		
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

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
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.Pwaste 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 ISI mark	Each	522
211	BMW-E.38	b) - do - labour charges only	Each	29
	<b>F</b>	<b>G.I. PIPES &amp; FITTINGS(Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)</b>		
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& F31.75mm 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

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>1594</b>
235	BMW-F.24	b) - do - labour charges only	Each	<b>39</b>
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	<b>2155</b>
237	BMW-F.26	b) - do - labour charges only	Each	<b>67</b>
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	<b>3155</b>
239	BMW-F.28	b) - do - labour charges only	Each	<b>90</b>
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	<b>4868</b>
241	BMW-F.30	b) - do - labour charges only	Each	<b>112</b>
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	<b>7211</b>
243	BMW-F.32	b) - do - labour charges only	Each	<b>133</b>
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 Size	Each	<b>406</b>
245	BMW-F.34	b) - do - labour charges only	Each	<b>56</b>
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	<b>919</b>
247	BMW-F.36	b) - do - labour charges only	Each	<b>67</b>
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	<b>1866</b>
249	BMW-F.38	b) - do - labour charges only	Each	<b>112</b>
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	<b>2548</b>
251	BMW-F.40	b) - do - labour charges only	Each	<b>112</b>
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	<b>589</b>
253	BMW-F.42	b) - do - labour charges only	Each	<b>54</b>
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	<b>383</b>
255	BMW-F.44	b) - do - labour charges only	Each	<b>54</b>
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	<b>496</b>
257	BMW-F.46	b) - do - labour charges only	Each	<b>54</b>
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	Each	<b>745</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
		Size		
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 Spindle as per IS - Class - I, Indian make heavy type - 25 mm NB Size	Each	780
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	1 RM	185

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		complete		
281	BMW-F.70	b) - do - labour charges only	1 RM	<b>41</b>
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	<b>241</b>
283	BMW-F.72	b) - do - labour charges only	1 RM	<b>41</b>
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	<b>335</b>
285	BMW-F.74	b) - do - labour charges only	1 RM	<b>41</b>
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	<b>376</b>
287	BMW-F.76	b) - do - labour charges only	1 RM	<b>44</b>
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	<b>412</b>
289	BMW-F.78	b) - do - labour charges only	1 RM	<b>67</b>
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	<b>179</b>
291	BMW-F.80	b) - do - labour charges only	1 RM	<b>41</b>
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	<b>198</b>
293	BMW-F.82	b) - do - labour charges only	1 RM	<b>41</b>
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 complete	1 RM	<b>258</b>
295	BMW-F.84	b) - do - labour charges only	1 RM	<b>41</b>
296	BMW-F.85	a) S& F 32 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	<b>359</b>
297	BMW-F.86	b) - do - labour charges only	1 RM	<b>41</b>
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	<b>401</b>
299	BMW-F.88	b) - do - labour charges only	1 RM	<b>44</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
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	<b>436</b>
301	BMW-F.90	b) - do - labour charges only	1 RM	<b>67</b>
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	<b>755</b>
303	BMW-F.92	a)S & F 12.7 mm holder bat clamps	Each	<b>12</b>
304	BMW-F.93	b) - do - labour charges only	Each	<b>8</b>
305	BMW-F.94	a)S & F 19.05 mm holder bat clamps	Each	<b>19</b>
306	BMW-F.95	b) - do - labour charges only	Each	<b>8</b>
307	BMW-F.96	a)S & F 25.4 mm holder bat clamps	Each	<b>25</b>
308	BMW-F.97	b) - do - labour charges only	Each	<b>8</b>
309	BMW-F.98	a)S & F 38.1 mm holder bat clamps	Each	<b>28</b>
310	BMW-F.99	b) - do - labour charges only	Each	<b>9</b>
311	BMW-F.100	a) S& F12.7x 152.0 mm NP shower rose heavy	Each	<b>161</b>
312	BMW-F.101	b) - do - labour charges only	Each	<b>20</b>
313	BMW-F.102	a) S& F12.7x 137.0 mm NP shower rose heavy	Each	<b>155</b>
314	BMW-F.103	b) - do - labour charges only	Each	<b>22</b>
315	BMW-F.104	a) S& F12.7x 101.6 mm NP shower rose heavy	Each	<b>147</b>
316	BMW-F.105	b) - do - labour charges only	Each	<b>22</b>
317	BMW-F.106	a) S & F 12.7 x 88.9 CP fancy shower	Each	<b>260</b>
318	BMW-F.107	b) - do - labour charges only	Each	<b>22</b>
319	BMW-F.108	a) Supplying & fixing 12.7 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	<b>43</b>
320	BMW-F.109	b) - do - labour charges only	Each	<b>22</b>
321	BMW-F.110	a) Supplying & fixing 19.05 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	<b>61</b>
322	BMW-F.111	b) - do - labour charges only	Each	<b>21</b>
323	BMW-F.112	a) Supplying & fixing 25.4 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	<b>72</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
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 GIppe including cutting threading, etc, complete with fitting	Each	138
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 GIppe 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 GIppe 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
	<b>G</b>	<b>PVC PIPES &amp; FITTINGS(Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)</b>		
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	Each	709

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		components & short bend:8 Litres capacity single Flush		
345	BMW-G.11	75 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>216</b>
346	BMW-G.12	90 mm dia 3 M single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>343</b>
347	BMW-G.13	110 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>410</b>
348	BMW-G.14	75 mm dia 3 MDouble Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>244</b>
349	BMW-G.15	90 mm dia 3 MDouble Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>389</b>
350	BMW-G.16	110 mm dia 3 MDouble Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>476</b>
351	BMW-G.17	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>152</b>
352	BMW-G.18	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>234</b>
353	BMW-G.19	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>291</b>
354	BMW-G.20	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>162</b>
355	BMW-G.21	90 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>249</b>
356	BMW-G.22	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>301</b>
357	BMW-G.23	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>112</b>
358	BMW-G.24	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>171</b>
359	BMW-G.25	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>206</b>
360	BMW-G.26	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>94</b>
361	BMW-G.27	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>138</b>
362	BMW-G.28	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>178</b>
363	BMW-G.29	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>57</b>
364	BMW-G.30	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>95</b>
365	BMW-G.31	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>119</b>
366	BMW-G.32	160 MM dia 3 M Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	<b>976</b>
367	BMW-G.33	75 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>366</b>
368	BMW-G.34	90 mm dia 3 M single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>589</b>
369	BMW-G.35	110 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>701</b>
370	BMW-G.36	75 mm dia 3 MDouble Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>400</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
371	BMW-G.37	90 mm dia 3 MDouble Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>635</b>
372	BMW-G.38	110 mm dia 3 MDouble Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>774</b>
373	BMW-G.39	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>240</b>
374	BMW-G.40	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>373</b>
375	BMW-G.41	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>444</b>
376	BMW-G.42	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>257</b>
377	BMW-G.43	90 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>389</b>
378	BMW-G.44	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>480</b>
379	BMW-G.45	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>174</b>
380	BMW-G.46	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>269</b>
381	BMW-G.47	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>328</b>
382	BMW-G.48	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>150</b>
383	BMW-G.49	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>220</b>
384	BMW-G.50	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>266</b>
385	BMW-G.51	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>97</b>
386	BMW-G.52	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>151</b>
387	BMW-G.53	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>192</b>
388	BMW-G.54	160 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	<b>1596</b>
389	BMW-G.55	75 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	<b>42</b>
390	BMW-G.56	90 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	<b>59</b>
391	BMW-G.57	110 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	<b>70</b>
392	BMW-G.58	75 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	<b>57</b>
393	BMW-G.59	90 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	<b>80</b>
394	BMW-G.60	110 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe	Each	<b>91</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		fittings		
395	BMW-G.61	75 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	<b>33</b>
396	BMW-G.62	90 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	<b>46</b>
397	BMW-G.63	110 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	<b>59</b>
398	BMW-G.64	75 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	<b>57</b>
399	BMW-G.65	90 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	<b>83</b>
400	BMW-G.66	110 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	<b>100</b>
401	BMW-G.67	75 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	<b>50</b>
402	BMW-G.68	90 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	<b>75</b>
403	BMW-G.69	110 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	<b>91</b>
404	BMW-G.70	75 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	<b>62</b>
405	BMW-G.71	90 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	<b>91</b>
406	BMW-G.72	110 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	<b>110</b>
407	BMW-G.73	75 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	<b>96</b>
408	BMW-G.74	90 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	<b>155</b>
409	BMW-G.75	110 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	<b>183</b>
410	BMW-G.76	75 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	<b>128</b>
411	BMW-G.77	90 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	<b>242</b>
412	BMW-G.78	110 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	<b>237</b>
413	BMW-G.79	75 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	<b>63</b>
414	BMW-G.80	90 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	<b>100</b>
415	BMW-G.81	110 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	<b>115</b>
416	BMW-G.82	75 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	<b>80</b>
417	BMW-G.83	90 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	<b>126</b>
418	BMW-G.84	110 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	<b>145</b>
419	BMW-G.85	75 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	<b>86</b>
420	BMW-G.86	90 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	<b>134</b>
421	BMW-G.87	110 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	<b>152</b>
422	BMW-G.88	75 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	<b>112</b>
423	BMW-G.89	90 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	<b>174</b>
424	BMW-G.90	110 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	<b>196</b>
425	BMW-G.91	75 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	<b>30</b>
426	BMW-G.92	90 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	<b>43</b>
427	BMW-G.93	110 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	<b>48</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
428	BMW-G.94	90 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	<b>50</b>
429	BMW-G.95	110 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	<b>48</b>
430	BMW-G.96	90 x 110mm dia - Reducer - UPVC/SWR Pipe fittings	Each	<b>67</b>
431	BMW-G.97	63 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	<b>8</b>
432	BMW-G.98	75 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	<b>12</b>
433	BMW-G.99	90 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	<b>14</b>
434	BMW-G.100	110 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	<b>16</b>
435	BMW-G.101	40 mm dia - Pipe Clip - UPVC/SWR Pipe fittings - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>9</b>
436	BMW-G.102	50 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>12</b>
437	BMW-G.103	63 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>12</b>
438	BMW-G.104	75 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>13</b>
439	BMW-G.105	90 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>14</b>
440	BMW-G.106	110 mm - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>15</b>
441	BMW-G.107	160 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	<b>30</b>
442	BMW-G.108	P' Trap ( Small without Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	<b>159</b>
443	BMW-G.109	P' Trap ( Small with Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	<b>176</b>
444	BMW-G.110	P' Trap (Big with Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	<b>201</b>
445	BMW-G.111	P' Trap ( Big without Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	<b>185</b>
446	BMW-G.112	Floor Trap (Bell Mouth ) 110 mm - UPVC/SWR Pipe fittings	Each	<b>192</b>
447	BMW-G.113	Bell Mouth Trap 7 " ( 177.8 mm) - UPVC/SWR Pipe fittings	Each	<b>279</b>
448	BMW-G.114	4" (101.6 mm ) Nahany Trap ( Without Jali with inlet)UPVC/SWR Pipe fittings	Each	<b>83</b>
449	BMW-G.115	3" (76.2 mm ) Nahany Trap ( without Jali without inlet)UPVC/SWR Pipe fittings	Each	<b>74</b>
450	BMW-G.116	4" (101.6 mm ) Nahany Trap ( without inlet with out Jali)UPVC/SWR Pipe fittings	Each	<b>83</b>
451	BMW-G.117	Mini Trap - UPVC/SWR Pipe fittings	Each	<b>45</b>
452	BMW-G.118	3" (76.2 mm ) Nahany Trap with Jali - UPVC/SWR Pipe fittings	Each	<b>86</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
453	BMW-G.119	4" (101.6 mm ) multi floor trap with Jali- UPVC/SWR Pipe fittings	Each	<b>122</b>
454	BMW-G.120	4" (101.6) multi floor trap with out Jalli- UPVC/SWR Pipe fittings	Each	<b>95</b>
455	BMW-G.121	Round Jali - UPVC/SWR Pipe fittings	Each	<b>20</b>
456	BMW-G.122	Square tile & Jalli - UPVC/SWR Pipe fittings	Each	<b>33</b>
457	BMW-G.123	Pipe connector( with LIP ring) - UPVC/SWR Pipe fittings	Each	<b>122</b>
458	BMW-G.124	Pipe connector( with out LIP ring) - UPVC/SWR Pipe fittings	Each	<b>99</b>
459	BMW-G.125	4" (101.6 mm ) Floor Trap - UPVC/SWR Pipe fittings	Each	<b>117</b>
460	BMW-G.126	5" (127.mm ) floor Trap - UPVC/SWR Pipe fittings	Each	<b>124</b>
461	BMW-G.127	75 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	<b>31</b>
462	BMW-G.128	90 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	<b>54</b>
463	BMW-G.129	110 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	<b>45</b>
464	BMW-G.130	75 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	<b>30</b>
465	BMW-G.131	90 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	<b>52</b>
466	BMW-G.132	110 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	<b>54</b>
467	BMW-G.133	75 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	<b>7</b>
468	BMW-G.134	90 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	<b>8</b>
469	BMW-G.135	110 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	<b>9</b>
470	BMW-G.136	75 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	<b>8</b>
471	BMW-G.137	90 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	<b>9</b>
472	BMW-G.138	110 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	<b>12</b>
473	BMW-G.139	LIP ring 110 mm - UPVC/SWR Pipe fittings	Each	<b>58</b>
474	BMW-G.140	Rubber Lubricant - 100 Grams	Each	<b>22</b>
475	BMW-G.141	Rubber Lubricant- 250Grams	Each	<b>43</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
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
	<b>H</b>	<b>CENTRIFUGAL CAST IRON PIPES &amp; FITTINGS AS PER IS: 3989 - 1984</b>		
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

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
500	BMW-H.14	75 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	<b>303</b>
501	BMW-H.15	100 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	<b>348</b>
502	BMW-H.16	75 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	<b>434</b>
503	BMW-H.17	100 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	<b>499</b>
504	BMW-H.18	150 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	<b>952</b>
505	BMW-H.19	75 mm diaCut pipes (pieces ) 2 feet (609.6 mm) CI (Spun) fittings	Each	<b>599</b>
506	BMW-H.20	100 mm diaCut pipes (pieces ) 2 feet (609.6 mm) CI (Spun) fittings	Each	<b>661</b>
507	BMW-H.21	150 mm diaCut pipes (pieces ) 2 feet (609.6 mm) CI (Spun) fittings	Each	<b>1193</b>
508	BMW-H.22	75 mm diaCut pipes (pieces ) 3 feet (914.4 mm) CI (Spun) fittings	Each	<b>918</b>
509	BMW-H.23	100 mm diaCut pipes (pieces ) 3 feet (914.4 mm) CI (Spun) fittings	Each	<b>1239</b>
510	BMW-H.24	75 mm dia Cut pipes (pieces ) 4 feet (1219.2 mm) CI (Spun) fittings	Each	<b>1010</b>
511	BMW-H.25	100 mm dia Cut pipes (pieces ) 4 feet (1219.2 mm) CI (Spun) fittings	Each	<b>1511</b>
512	BMW-H.26	75 mm dia Plain Bend - CI (Spun) fittings	Each	<b>312</b>
513	BMW-H.27	100 mm dia Plain Bend - CI (Spun) fittings	Each	<b>367</b>
514	BMW-H.28	150 mm dia Plain Bend - CI (Spun) fittings	Each	<b>874</b>
515	BMW-H.29	75 mm dia Door Bend - CI (Spun) fittings	Each	<b>323</b>
516	BMW-H.30	100 mm dia Door Bend - CI (Spun) fittings	Each	<b>418</b>
517	BMW-H.31	150 mm dia Door Bend - CI (Spun) fittings	Each	<b>957</b>
518	BMW-H.32	75 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	<b>312</b>
519	BMW-H.33	100 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	<b>367</b>
520	BMW-H.34	150 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	<b>874</b>
521	BMW-H.35	75 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	<b>323</b>
522	BMW-H.36	100 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	<b>418</b>
523	BMW-H.37	150 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	<b>957</b>
524	BMW-H.38	Horn Bend Plain 101.6 x 50.8 mm (4" x 2") 100 mm dia - CI (Spun) fittings	Each	<b>635</b>
525	BMW-H.39	Horn Bend door 101.6 x 50.8 mm (4" x 2") 100 mm dia - CI (Spun) fittings	Each	<b>741</b>
526	BMW-H.40	75 mm dia Heel Rest Bend - CI (Spun) fittings	Each	<b>332</b>
527	BMW-H.41	100 mm dia Heel Rest Bend - CI (Spun) fittings	Each	<b>424</b>
528	BMW-H.42	150 mm dia Heel Rest Bend - CI (Spun) fittings	Each	<b>902</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
529	BMW-H.43	75 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	<b>418</b>
530	BMW-H.44	100 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	<b>564</b>
531	BMW-H.45	150 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	<b>1164</b>
532	BMW-H.46	75 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	<b>493</b>
533	BMW-H.47	100 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	<b>654</b>
534	BMW-H.48	150 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	<b>1229</b>
535	BMW-H.49	75 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	<b>493</b>
536	BMW-H.50	100 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	<b>654</b>
537	BMW-H.51	150 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	<b>1443</b>
538	BMW-H.52	75 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	<b>540</b>
539	BMW-H.53	100 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	<b>722</b>
540	BMW-H.54	150 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	<b>1554</b>
541	BMW-H.55	75 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	<b>571</b>
542	BMW-H.56	100 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	<b>769</b>
543	BMW-H.57	75 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	<b>637</b>
544	BMW-H.58	100 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	<b>802</b>
545	BMW-H.59	75 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	<b>637</b>
546	BMW-H.60	100 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	<b>802</b>
547	BMW-H.61	75 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	<b>671</b>
548	BMW-H.62	100 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	<b>870</b>
549	BMW-H.63	75 mm dia Shoe Bend - CI (Spun) fittings	Each	<b>394</b>
550	BMW-H.64	100 mm dia Shoe Bend - CI (Spun) fittings	Each	<b>461</b>
551	BMW-H.65	150 mm dia Shoe Bend - CI (Spun) fittings	Each	<b>935</b>
552	BMW-H.66	75 mm dia Collar - CI (Spun) fittings	Each	<b>269</b>
553	BMW-H.67	100 mm dia Collar - CI (Spun) fittings	Each	<b>327</b>
554	BMW-H.68	150 mm dia Collar - CI (Spun) fittings	Each	<b>671</b>
555	BMW-H.69	75 mm dia Cowl - CI (Spun) fittings	Each	<b>238</b>
556	BMW-H.70	100 mm dia Cowl - CI (Spun) fittings	Each	<b>269</b>
557	BMW-H.71	150 mm dia Cowl - CI (Spun) fittings	Each	<b>604</b>
558	BMW-H.72	75 mm dia Offset 3" (76.2 mm ) projection - CI (Spun) fittings	Each	<b>345</b>
559	BMW-H.73	100 mm dia Offset 3" (76.2 mm ) projection - CI (Spun) fittings	Each	<b>418</b>
560	BMW-H.74	150 mm dia Offset 3" (76.2 mm ) projection - CI (Spun) fittings	Each	<b>844</b>
561	BMW-H.75	75 mm dia Offset 6" (152.4mm ) projection - CI (Spun) fittings	Each	<b>377</b>
562	BMW-H.76	100 mm dia Offset 6" (152.4mm ) projection - CI (Spun) fittings	Each	<b>493</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
563	BMW-H.77	150 mm dia Offset 6" (152.4mm ) projection - CI (Spun) fittings	Each	<b>983</b>
564	BMW-H.78	75 mm diaLong Door Bend - CI (Spun) fittings	Each	<b>792</b>
565	BMW-H.79	100 mm diaLong Door Bend - CI (Spun) fittings	Each	<b>852</b>
566	BMW-H.80	75 mm dia Hand Hole pipe ( Inspection pipe)	Each	<b>455</b>
567	BMW-H.81	100 mm dia Hand Hole pipe ( Inspection pipe)	Each	<b>620</b>
568	BMW-H.82	150 mm dia Hand Hole pipe ( Inspection pipe)	Each	<b>825</b>
569	BMW-H.83	75 mm dia P Traps - CI (Spun) fittings	Each	<b>493</b>
570	BMW-H.84	100 mm dia P Traps - CI (Spun) fittings	Each	<b>676</b>
571	BMW-H.85	4" x 3" (101.6 mm x 76.2mm ) P. Traps 100 mm dia - CI (Spun) fittings	Each	<b>775</b>
572	BMW-H.86	4" x 3" (101.6 mm x 76.2mm ) Vent Traps 100 mm dia - CI (Spun) fittings	Each	<b>775</b>
573	BMW-H.87	4" x 3" (101.6 mm x 76.2mm ) Reducer 75 mm dia - CI (Spun) fittings	Each	<b>481</b>
574	BMW-H.88	6" x 4" (152.4 mm x101.6 mm ) Reducer 75 mm dia - CI (Spun) fittings	Each	<b>659</b>
575	BMW-H.89	3" x 2" ( 76.2 mm x 50.8 mm ) plain T 75 mm dia - CI (Spun) fittings	Each	<b>411</b>
576	BMW-H.90	3" x 2" ( 76.2 mm x 50.8 mm ) Door T 75 mm dia - CI (Spun) fittings	Each	<b>642</b>
577	BMW-H.91	3" x 2" ( 76.2 mm x 50.8 mm ) Plain Y 75 mm dia - CI (Spun) fittings	Each	<b>642</b>
578	BMW-H.92	3" x 2" ( 76.2 mm x 50.8 mm ) Door Y 75 mm dia - CI (Spun) fittings	Each	<b>642</b>
579	BMW-H.93	4" x 3" (101.6 mm x 76.2mm ) Plain T75 mm dia - CI (Spun) fittings	Each	<b>642</b>
580	BMW-H.94	4" x 3" (101.6 mm x 76.2mm ) Door T75 mm dia - CI (Spun) fittings	Each	<b>680</b>
581	BMW-H.95	4" x 3" (101.6 mm x 76.2mm ) Plain Y75 mm dia - CI (Spun) fittings	Each	<b>680</b>
582	BMW-H.96	4" x 3" (101.6 mm x 76.2mm ) DoorY75 mm dia - CI (Spun) fittings	Each	<b>726</b>
583	BMW-H.97	6" x 4" (152.4 mm x101.6 mm ) Plain T 75 mm dia - CI (Spun) fittings	Each	<b>950</b>
584	BMW-H.98	6" x 4" (152.4 mm x101.6 mm )Door T 75 mm dia - CI (Spun) fittings	Each	<b>1029</b>
585	BMW-H.99	6" x 4" (152.4 mm x101.6 mm ) Plain Y 75 mm dia - CI (Spun) fittings	Each	<b>1089</b>
586	BMW-H.100	6" x 4" (152.4 mm x101.6 mm )DoorY 75 mm dia - CI (Spun) fittings	Each	<b>1331</b>
587	BMW-H.101	75 mm diaPlain " T" 27 " (685.8 mm ) Special Types of Long Fittings	Each	<b>1379</b>
588	BMW-	100 mm dia - Plain " T" 27 " (685.8 mm ) Special Types of	Each	<b>1937</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
	H.102	Long CI (Spun) fittings		
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 rest and all fittings complete (ARK/ESSCO or equivalent make)	Each	1896
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

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
615	BMW-I.21	b) - do - labour charges only	Each	<b>44</b>
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	<b>130</b>
617	BMW-I.23	b) - do - labour charges only	Each	<b>67</b>
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	<b>186</b>
619	BMW-I.25	b) - do - labour charges only	Each	<b>56</b>
620	BMW-I.26	a) S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	<b>60</b>
621	BMW-I.27	b) - do - labour charges only	Each	<b>11</b>
622	BMW-I.28	a) S & F NP soap dish heavy type with NP SCREWS	Each	<b>208</b>
623	BMW-I.29	b) - do - labour charges only	Each	<b>12</b>
624	BMW-I.30	a) S & F NP holder brackets with screws	Each	<b>43</b>
625	BMW-I.31	b) - do - labour charges only	Each	<b>14</b>
626	BMW-I.32	a) S & F liquid soap container NP metallic with NP brackets and screws.	Each	<b>209</b>
627	BMW-I.33	b) - do - labour charges only	Each	<b>22</b>
628	BMW-I.34	a) S & F 31.75 mm C.P TRAPS	Each	<b>273</b>
629	BMW-I.35	b) - do - labour charges only	Each	<b>44</b>
630	BMW-I.36	a) Supplying & fixing 88.9 mm A.C cowls	Each	<b>62</b>
631	BMW-I.37	b) - do - labour charges only	Each	<b>14</b>
632	BMW-I.38	a)Supplying & fixing A.CCowl 63.5 mm dia	Each	<b>42</b>
633	BMW-I.39	b) - do - labour charges only	Each	<b>11</b>
634	BMW-I.40	Removing and refixing W.C s	Each	<b>193</b>
635	BMW-I.41	Removing and refixing wash hand basins of any size with fittings complete	Each	<b>186</b>
636	BMW-I.42	a)S & F 76.2 x 101.6 mm teak wood block complete	Each	<b>23</b>
637	BMW-I.43	b) - do - labour charges only	Each	<b>9</b>
638	BMW-I.44	Cutting holes in C.C; basement & repairs Labour charges only	Each	<b>107</b>
639	BMW-I.45	Cutting holes in stone masonry& basement and repairs Labour charges only	Each	<b>72</b>
640	BMW-I.46	Cutting holes in Brick masonry& repairs Labour charges only	Each	<b>47</b>
641	BMW-I.47	Cutting holes in RCC slab floor & repairs Labour charges only	Each	<b>72</b>
642	BMW-I.48	a)Supplying & Fixing 12.7 mm PVC connection with brass union nut C.P coated	Each	<b>86</b>
643	BMW-I.49	b) - do - labour charges only	Each	<b>17</b>
644	BMW-I.50	a) S & F 12.7 mm .M.P couplings	Each	<b>31</b>
645	BMW-I.51	b) - do - labour charges only	Each	<b>11</b>

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646	BMW-I.52	a) S & F 19.05 mm M.P couplings	Each	<b>37</b>
647	BMW-I.53	b) - do - labour charges only	Each	<b>11</b>
648	BMW-I.54	a) S& F MP coupling 25.4 mm dia	Each	<b>82</b>
		b) - do - labour charges only	Each	<b>11</b>
649	BMW-I.55	a) S & FPVC Rubber adopter for LLC and bend	Each	<b>17</b>
650	BMW-I.56	b) - do - labour charges only	Each	<b>8</b>
651	BMW-I.57	a) S& F 31.75 mm Brass union nuts	Each	<b>31</b>
652	BMW-I.58	b) - do - labour charges only	Each	<b>7</b>
653	BMW-I.59	a) S& F 38.1 mm Brass union nuts	Each	<b>33</b>
654	BMW-I.60	b) - do - labour charges only	Each	<b>9</b>
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	<b>417</b>
656	BMW-I.62	b) - do - labour charges only	Each	<b>100</b>
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 includingplastering and finishing etc. complete.	Each	<b>68</b>
658	BMW-I.64	b) - do - labour charges only	Each	<b>22</b>
659	BMW-I.65	a) Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	<b>110</b>
660	BMW-I.66	b) - do - labour charges only	Each	<b>35</b>
661	BMW-I.67	a) Supplying & fixing CI Nahany trap grating	Each	<b>19</b>
662	BMW-I.68	b) - do - labour charges only	Each	<b>11</b>
663	BMW-I.69	a) Supplying & fixing CI gully trap grating	Each	<b>44</b>
664	BMW-I.70	b) - do - labour charges only	Each	<b>11</b>
665	BMW-I.71	a) Supplying & fixing valves for brass ball cocks 25.4 mm dia	Each	<b>17</b>
666	BMW-I.72	b) - do - labour charges only	Each	<b>9</b>
667	BMW-I.73	a) Supplying & fixing 12.7 m valve for bib tap or stop cocks	Each	<b>16</b>
668	BMW-I.74	b) - do - labour charges only	Each	<b>7</b>
669	BMW-I.75	a) Supplying & fixing 19.05 m valve for bib tap or stop cocks	Each	<b>35</b>
670	BMW-I.76	b) - do - labour charges only	Each	<b>11</b>
671	BMW-I.77	Removing 12.7 mm Glpipe and refixing the same	Mr.	<b>58</b>
672	BMW-I.78	Removing 19.05 mm Glpipe and refixing the same	Mr.	<b>63</b>
673	BMW-I.79	Removing 25.4 mm Glpipe and refixing the same	Mr.	<b>95</b>
674	BMW-I.80	Removing 38.1 mm Glpipe and refixing the same	Rm	<b>120</b>
675	BMW-I.81	Removing 50.8 mm Glpipe and refixing the same	Rm	<b>141</b>
676	BMW-I.82	Cleaning the W.C with acid and Vim powder	Each	<b>39</b>
677	BMW-I.83	Cleaning the Urinal with acid and Vim power	Each	<b>39</b>
678	BMW-I.84	Cleaning the wash basin with acid and Vim powder	Each	<b>39</b>

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679	BMW-I.85	Cleaning the E.W.C with acid and Vim power	Each	<b>39</b>
680	BMW-I.86	Supplying & fixing 914.4 x 457.2 mm CI man hole frame and cover (light weight) 30 Kgs	Each	<b>1732</b>
681	BMW-I.87	Supplying & fixing 602 x 602 mm CI man hole frame and cover (light weight) 30 Kgs	Each	<b>2564</b>
682	BMW-I.88	b) - do - labour charges only	Each	<b>140</b>
683	BMW-I.89	a) Supplying & fixing CI steps for septic tank.	Each	<b>57</b>
684	BMW-I.90	b) - do - labour charges only	Each	<b>11</b>
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	<b>1121</b>
686	BMW-I.92	b) - do - labour charges only	Each	<b>140</b>
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	<b>2326</b>
688	BMW-I.94	b) - do - labour charges only	Each	<b>356</b>
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	<b>212</b>
690	BMW-I.96	a) Cost. 50.8 mm RCC partition wall	1Sqm	<b>238</b>
691	BMW-I.97	b) - do - labour charges only	1 Sqm	<b>44</b>
692	BMW-I.98	a) S& F double layer of bamboo matting tarred on both sides.	10 Sqm	<b>547</b>
693	BMW-I.99	b) - do - labour charges only	10 Sqm	<b>123</b>
694	BMW-I.100	Removing of 101.6 mm or 76.2 mm CI pipe	1 RM	<b>30</b>
695	BMW-I.101	a) Supplying & fixing 76.2 mm W.I clamps	Each	<b>23</b>
696	BMW-I.102	b) - do - labour charges only	Each	<b>9</b>
697	BMW-I.103	a) Supplying & fixing NP coat hook	Each	<b>41</b>
698	BMW-I.104	b) - do - labour charges only	Each	<b>11</b>
699	BMW-I.105	a) Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457.2 mm	Each	<b>452</b>
700	BMW-I.106	b) - do - labour charges only	Each	<b>116</b>
701	BMW-I.107	a) Supplying & fixing GI pipe plug of size 12.7 mm dia	Each	<b>9</b>
702	BMW-I.108	b) - do - labour charges only	Each	<b>1</b>
703	BMW-I.109	a) Supplying & fixing 19.06 mm dia GI plug	Each	<b>12</b>
704	BMW-I.110	b) - do - labour charges only	Each	<b>1</b>
705	BMW-I.111	a) Supplying and fixing 38.1 mm dia of GI plug	Each	<b>62</b>
706	BMW-I.112	b) - do - labour charges only	Each	<b>9</b>
707	BMW-I.113	a) Supplying & fixing 50.8 mm dia of GI PLUG	Each	<b>95</b>
708	BMW-I.114	b) - do - labour charges only	Each	<b>11</b>
709	BMW-I.115	a) Supplying & fixing 76.2 mm dia of GI PLUG	Each	<b>172</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
710	BMW-I.116	b) - do - labour charges only	Each	<b>19</b>
711	BMW-I.117	a) Supplying & fixing C.P flange.	Each	<b>23</b>
712	BMW-I.118	b) - do - labour charges only	Each	<b>8</b>
713	BMW-I.119	a) Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	<b>6471</b>
714	BMW-I.120	b) - do - labour charges only	Each	<b>506</b>
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	<b>5100</b>
716	BMW-I.122	b) - do - labour charges only	Each	<b>491</b>
717	BMW-I.123	a) Supplying & fixing stainless steel sink size 20" x18" x 8 "(508x457.2x203.2mm) 1 mm thick with accessories	Each	<b>4637</b>
718	BMW-I.124	b) - do - labour charges only	Each	<b>449</b>
719	BMW-I.125	Supplying & fixing 4 " x 24 " (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	<b>470</b>
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	<b>853</b>
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	<b>4672</b>
722	BMW-I.128	Supply & fixing porcelain P' trap	Each	<b>201</b>
723	BMW-I.129	Supplying & fixing oval shape basin white (520x410mm)parry or equivalent	Each	<b>2138</b>
724	BMW-I.130	Supply & fixing RCC cover 22" dia with nominal reinforcement 3 " thick and hooks for lifting	Each	<b>633</b>
725	BMW-I.131	Supply & fixing cp spl. Grating with frame and cover of 1st quality	Each	<b>54</b>
726	BMW-I.132	Supply & fixing towel rod (CP) of 24" long and 3/4 " dia	Each	<b>341</b>
727	BMW-I.133	Supply & fixing of LLC handle set 1stquality	Each	<b>68</b>
728	BMW-I.134	Mechanical Cleaning of water sumps with pumps & UV disinfecting	1000 Lit	<b>47</b>
729	BMW-I.135	Supply & fixing 4" dia CP thimble pipe: 150 mm long	Each	<b>356</b>
730	BMW-I.136	Supply & fixing 4" dia CP thimble pipe:220 mm long	Each	<b>532</b>
731	BMW-I.137	Supply & fixing 4" dia CP thimble pipe: 300 mm long	Each	<b>710</b>
732	BMW-I.138	Supply & fixing CP long bend	Each	<b>301</b>
733	BMW-I.139	Supply & fixing CP short bend	Each	<b>151</b>
734	BMW-I.140	Supplying & fixing 15 mm bib tap with flange Chromeum plated Jaquar make queen series	Each	<b>1483</b>
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	<b>3758</b>
736	BMW-I.142	Supply & fixing bib cock cum health faucet with 1 m long	Each	<b>6319</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		flexible tube and wall hook ofJaquar make queen series with 7 years warranty: Ivory gold		
737	BMW-I.143	Supply & fixing pillar cock Jaquar make Queen series with 7 years warranty: Chrome plated	Each	<b>1557</b>
738	BMW-I.144	Supply & fixing pillar cock Jaquar make Queen series with 7 years warranty: Ivory gold	Each	<b>2658</b>
739	BMW-I.145	Supply & fixing Angular stop cocks with wall flange Jaquar make Queen series with 7 years warranty: Chrome plated	Each	<b>1537</b>
740	BMW-I.146	Supply & fixing Angular stop cocks with wall flange Jaquar make Queen series with 7 years warranty: Ivory gold	Each	<b>2976</b>
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	<b>345</b>
742	BMW-I.148	Supply & fixing of Bottle trap Jaquar make with 7 years warranty: Chrome plated	Each	<b>1469</b>
743	BMW-I.149	Supply & fixing of Bottle trap Jaquar make with 7 years warranty: Ivory gold	Each	<b>2484</b>
744	BMW-I.150	Supply & Fixing copper pipe 450 mm long with nuts & washers Jaquar make with 7 years warranty: Chrome plated	Each	<b>361</b>
745	BMW-I.151	Supply & Fixing copper pipe 450 mm long with nuts & washers Jaquar make with 7 years warranty:Ivory gold	Each	<b>699</b>
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	<b>4748</b>
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	<b>7469</b>
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	<b>2203</b>
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	<b>3228</b>
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	<b>12584</b>
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	<b>1532</b>
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	<b>2201</b>
753	BMW-I.159	Supply & fixingsoap dish Jaquar make queen series: with 7 years warranty:Chrome plated	Each	<b>1445</b>
754	BMW-I.160	Supply & fixingsoap dish Jaquar make queen series: with 7 years warranty: Ivory Gold	Each	<b>2120</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
755	BMW-I.161	Supply & fixing of toilet paper holder Jaquar make Queen series. with 7 years warranty: Chrome plated	Each	<b>1164</b>
756	BMW-I.162	Supply & fixing of toilet paper holder Jaquar make Queen series. with 7 years warranty: Ivory Gold	Each	<b>2049</b>
757	BMW-I.163	Supply & Fixing of Towel ring Jaquar make Queen series with 7 years warranty: Chrome plated	Each	<b>1094</b>
758	BMW-I.164	Supply & Fixing of Towel ring Jaquar make Queen series with 7 years warranty: Ivory Gold	Each	<b>1787</b>
759	BMW-I.165	Supply & Fixing of towel coat hook Jaquar make Queen series with 7 years warranty: Chrome plated	Each	<b>814</b>
760	BMW-I.166	Supply & Fixing of towel coat hook Jaquar make Queen series with 7 years warranty: Ivory Gold	Each	<b>1684</b>
761	BMW-I.167	Supply & Fixing of Towel rod 24 " Jaquar make Queen series Ivory gold colour with 7 years warranty	Each	<b>2793</b>
762	BMW-I.168	Supply & Fixing of Tumbler holder Jaquar make Queen series, Ivory gold colour with 7 years warranty	Each	<b>1957</b>
763	BMW-I.169	Supply & fixing of Glass shelf 22" Jaquar make Queen series, Ivory gold colour with 7 years warranty	Each	<b>3817</b>
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	<b>2769</b>
765	BMW-I.171	Supply & Fixing of Bibcock Jaquar Continental series, Chrome Finish with 7 years warranty	Each	<b>814</b>
766	BMW-I.172	Supply & Fixing of Pillar cock Jaquar Continental series, Chrome Finish with 7 years warranty	Each	<b>1011</b>
767	BMW-I.173	Supply & Fixing of Angular stopcock with wall flange Jaquar Continental series, Chrome finish with 7 years warranty	Each	<b>752</b>
768	BMW-I.174	Supply fixing of Waste coupling Jaquar make, Chrome finish with 7 years warranty	Each	<b>327</b>
769	BMW-I.175	Supply & Fixing of Bottle Trap Jaquar make, Chrome finish with 7 years warranty	Each	<b>1469</b>
770	BMW-I.176	Supply & Fixing of copper pipe 450mm long with nuts & washers Jaquar make, Chrome Finish with 7 years warranty	Each	<b>327</b>
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	<b>3556</b>
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	<b>1519</b>
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	<b>4965</b>
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	Each	<b>1159</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
		warranty		
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 make Florentine(Quarter turn) series, Chrome finish with 7 years warranty	Each	4291
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	Each	12525

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		for wash basin, Chrome plated with 7 years warranty		
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	<b>12525</b>
795	BMW-I.201	Supply & fixing of Jaquar make Auto closing system pillar cock for wash basin, Chrome plated with 7 years warranty	Each	<b>2075</b>
796	BMW-I.202	Supply& Fixing of Jaquar make Auto Closing system Bibcock, Chrome plated with 7 years warranty	Each	<b>2177</b>
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	<b>133</b>
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	<b>165</b>
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	<b>207</b>
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	<b>278</b>
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	<b>365</b>
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	1 RM	<b>464</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		elbows, tees, reducers, couplers, connectors etc complete for external works including laying pipes, fixing in position, testing and commissioning etc : 50 mm OD pipe		
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	<b>192</b>
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	<b>230</b>
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	<b>284</b>
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	<b>375</b>
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, 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	1 RM	<b>487</b>
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	1 RM	<b>615</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
		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		
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 etc40 mm OD pipe	1 RM	374
		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" ton 2" Ashirvad Flowgurard 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)		

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
814	BMW-I.220	15.90mm ODPipe - SDR 13.5	1 RM	<b>53</b>
815	BMW-I.221	22.20mm ODPipe - SDR 13.5	1 RM	<b>85</b>
816	BMW-I.222	28.60mm ODPipe - SDR 13.5	1 RM	<b>123</b>
817	BMW-I.223	34.90mm ODPipe - SDR 13.5	1 RM	<b>193</b>
818	BMW-I.224	41.30mm ODPipe - SDR 13.5	1 RM	<b>266</b>
819	BMW-I.225	54mm ODPipe - SDR 13.5	1 RM	<b>437</b>
820	BMW-I.226	15.90mm ODPipe - SDR 11	1 RM	<b>61</b>
821	BMW-I.227	22.20mm ODPipe - SDR 11	1 RM	<b>93</b>
822	BMW-I.228	28.60mm ODPipe - SDR 11	1 RM	<b>144</b>
823	BMW-I.229	34.90mm ODPipe - SDR 11	1 RM	<b>229</b>
824	BMW-I.230	41.30mm ODPipe - SDR 11	1 RM	<b>314</b>
825	BMW-I.231	54mm ODPipe - SDR 11	1 RM	<b>483</b>
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	<b>41</b>
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	<b>62</b>
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	<b>97</b>
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	<b>152</b>
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	<b>272</b>
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	<b>427</b>
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	<b>594</b>
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	<b>815</b>
834	BMW-I.240	Supply of 110mm x 10mm PN 10/PPR Pipe conforming to DIN Standards 8077/8084 conforming to IS15801	1 RM	<b>1208</b>
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	<b>56</b>
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	<b>86</b>
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	<b>138</b>
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	<b>212</b>
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	<b>380</b>
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	<b>599</b>
841	BMW-I.247	Supply of 75mm x 10.3mm PN 16/PPR Pipe conforming to	1 RM	<b>846</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
		DIN Standards 8077/8082 conforming to IS15801		
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	<b>1206</b>
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	<b>1807</b>
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	<b>65</b>
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	<b>100</b>
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	<b>161</b>
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	<b>247</b>
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	<b>439</b>
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	<b>693</b>
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	<b>984</b>
851	BMW-I.257	Supply of 90mm x 15mm PN 20/PPR Pipe conforming to DIN Standards 8077/8083	1 RM	<b>1337</b>
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	<b>2105</b>
853	BMW-I.259	Supply of 20mm PPR Socket conforming to DIN Standards 8077/8084	1 RM	<b>9</b>
854	BMW-I.260	Supply of 25mm PPR Socket conforming to DIN Standards 8077/8085	1 RM	<b>13</b>
855	BMW-I.261	Supply of 32mm PPR Socket conforming to DIN Standards 8077/8086	1 RM	<b>18</b>
856	BMW-I.262	Supply of 40mm PPR Socket conforming to DIN Standards 8077/8087	1 RM	<b>30</b>
857	BMW-I.263	Supply of 50mm PPR Socket conforming to DIN Standards 8077/8088	1 RM	<b>59</b>
858	BMW-I.264	Supply of 63mm PPR Socket conforming to DIN Standards 8077/8089	1 RM	<b>113</b>
859	BMW-I.265	Supply of 75mm PPR Socket conforming to DIN Standards 8077/8090	1 RM	<b>173</b>
860	BMW-I.266	Supply of 90mm PPR Socket conforming to DIN Standards 8077/8091	1 RM	<b>331</b>
861	BMW-I.267	Supply of 110mm PPR Socket conforming to DIN Standards 8077/8092	1 RM	<b>589</b>
862	BMW-I.268	Supply of 32mm PPR Core Flange conforming to DIN Standards 8077/8086	Each	<b>36</b>
863	BMW-I.269	Supply of 40mm PPR Core Flange conforming to DIN Standards 8077/8087	Each	<b>57</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
864	BMW-I.270	Supply of 50mm PPR Core Flange conforming to DIN Standards 8077/8088	Each	<b>74</b>
865	BMW-I.271	Supply of 63mm PPR Core Flange conforming to DIN Standards 8077/8089	Each	<b>117</b>
866	BMW-I.272	Supply of 75mm PPR Core Flange conforming to DIN Standards 8077/8090	Each	<b>136</b>
867	BMW-I.273	Supply of 90mm PPR Core Flange conforming to DIN Standards 8077/8091	Each	<b>348</b>
868	BMW-I.274	Supply of 110mm PPR Core Flange conforming to DIN Standards 8077/8092	Each	<b>450</b>
869	BMW-I.275	Supply of 20mm PPR Elbow conforming to DIN Standards 8077/8084	Each	<b>15</b>
870	BMW-I.276	Supply of 25mm PPR Elbow conforming to DIN Standards 8077/8085	Each	<b>19</b>
871	BMW-I.277	Supply of 32mm PPR Elbow conforming to DIN Standards 8077/8086	Each	<b>36</b>
872	BMW-I.278	Supply of 40mm PPR Elbow conforming to DIN Standards 8077/8087	Each	<b>63</b>
873	BMW-I.279	Supply of 50mm PPR Elbow conforming to DIN Standards 8077/8088	Each	<b>119</b>
874	BMW-I.280	Supply of 63mm PPR Elbow conforming to DIN Standards 8077/8089	Each	<b>232</b>
875	BMW-I.281	Supply of 75mm PPR Elbow conforming to DIN Standards 8077/8090	Each	<b>375</b>
876	BMW-I.282	Supply of 90mm PPR Elbow conforming to DIN Standards 8077/8091	Each	<b>698</b>
877	BMW-I.283	Supply of 110mm PPR Elbow conforming to DIN Standards 8077/8092	Each	<b>1295</b>
878	BMW-I.284	Supply of 20mm PPR Tee conforming to DIN Standards 8077/8084	Each	<b>14</b>
879	BMW-I.285	Supply of 25mm PPR Tee conforming to DIN Standards 8077/8085	Each	<b>24</b>
880	BMW-I.286	Supply of 32mm PPR Tee conforming to DIN Standards 8077/8086	Each	<b>43</b>
881	BMW-I.287	Supply of 40mm PPR Tee conforming to DIN Standards 8077/8087	Each	<b>76</b>
882	BMW-I.288	Supply of 50mm PPR Tee conforming to DIN Standards 8077/8088	Each	<b>135</b>
883	BMW-I.289	Supply of 63mm PPR Tee conforming to DIN Standards 8077/8089	Each	<b>275</b>
884	BMW-I.290	Supply of 75mm PPR Tee conforming to DIN Standards 8077/8090	Each	<b>538</b>
885	BMW-I.291	Supply of 90mm PPR Tee conforming to DIN Standards 8077/8091	Each	<b>781</b>
886	BMW-I.292	Supply of 110mm PPR Tee conforming to DIN Standards 8077/8092	Each	<b>1353</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
887	BMW-I.293	Supply of 20mm PPR End Cap conforming to DIN Standards 8077/8084	Each	<b>6</b>
888	BMW-I.294	Supply of 25mm PPR End Cap conforming to DIN Standards 8077/8085	Each	<b>9</b>
889	BMW-I.295	Supply of 32mm PPR End Cap conforming to DIN Standards 8077/8086	Each	<b>18</b>
890	BMW-I.296	Supply of 40mm PPR End Cap conforming to DIN Standards 8077/8087	Each	<b>30</b>
891	BMW-I.297	Supply of 50mm PPR End Cap conforming to DIN Standards 8077/8088	Each	<b>53</b>
892	BMW-I.298	Supply of 63mm PPR End Cap conforming to DIN Standards 8077/8089	Each	<b>113</b>
893	BMW-I.299	Supply of 75mm PPR End Cap conforming to DIN Standards 8077/8090	Each	<b>190</b>
894	BMW-I.300	Supply of 90mm PPR End Cap conforming to DIN Standards 8077/8091	Each	<b>303</b>
895	BMW-I.301	Supply of 110mm PPR End Cap conforming to DIN Standards 8077/8092	Each	<b>599</b>
896	BMW-I.302	Supply of 25mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>11</b>
897	BMW-I.303	Supply of 32mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>19</b>
898	BMW-I.304	Supply of 32mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>18</b>
899	BMW-I.305	Supply of 40mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>31</b>
900	BMW-I.306	Supply of 40mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>30</b>
901	BMW-I.307	Supply of 40mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>30</b>
902	BMW-I.308	Supply of 50mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>46</b>
903	BMW-I.309	Supply of 50mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>47</b>
904	BMW-I.310	Supply of 50mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>47</b>
905	BMW-I.311	Supply of 50mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>48</b>
906	BMW-I.312	Supply of 63mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>105</b>
907	BMW-I.313	Supply of 63mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>105</b>
908	BMW-I.314	Supply of 63mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>106</b>
909	BMW-I.315	Supply of 63mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>107</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
910	BMW-I.316	Supply of 63mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>108</b>
911	BMW-I.317	Supply of 75mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>156</b>
912	BMW-I.318	Supply of 75mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>157</b>
913	BMW-I.319	Supply of 75mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>199</b>
914	BMW-I.320	Supply of 90mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>380</b>
915	BMW-I.321	Supply of 90mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>403</b>
916	BMW-I.322	Supply of 110mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>508</b>
917	BMW-I.323	Supply of 110mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>591</b>
918	BMW-I.324	Supply of 110mm x 90mm PPR Reducer conforming to DIN Standards 8077/8092	Each	<b>637</b>
919	BMW-I.325	Supply of 25mm x 20mm x 25mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>30</b>
920	BMW-I.326	Supply of 32mm x 25mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>52</b>
921	BMW-I.327	Supply of 32mm x 20mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>52</b>
922	BMW-I.328	Supply of 40mm x 20mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>86</b>
923	BMW-I.329	Supply of 40mm x 25mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>87</b>
924	BMW-I.330	Supply of 40mm x 32mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>89</b>
925	BMW-I.331	Supply of 50mm x 20mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>124</b>
926	BMW-I.332	Supply of 50mm x 25mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>125</b>
927	BMW-I.333	Supply of 50mm x 32mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>129</b>
928	BMW-I.334	Supply of 50mm x 40mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>130</b>
929	BMW-I.335	Supply of 63mm x 20mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>358</b>
930	BMW-I.336	Supply of 63mm x 25mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>360</b>
931	BMW-I.337	Supply of 63mm x 32mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>365</b>
932	BMW-I.338	Supply of 63mm x 40mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>371</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
933	BMW-I.339	Supply of 63mm x 50mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>377</b>
934	BMW-I.340	Supply of 75mm x 50mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>506</b>
935	BMW-I.341	Supply of 75mm x 63mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>514</b>
936	BMW-I.342	Supply of 90mm x 50mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>681</b>
937	BMW-I.343	Supply of 90mm x 63mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>724</b>
938	BMW-I.344	Supply of 110mm x 75mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>1235</b>
939	BMW-I.345	Supply of 110mm x 90mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	<b>1284</b>
940	BMW-I.346	Supply of 20mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>95</b>
941	BMW-I.347	Supply of 25mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>97</b>
942	BMW-I.348	Supply of 25mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>170</b>
943	BMW-I.349	Supply of 32mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>174</b>
944	BMW-I.350	Supply of 32mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>179</b>
945	BMW-I.351	Supply of 32mm x 1" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>277</b>
946	BMW-I.352	Supply of 40mm x 1¼" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>410</b>
947	BMW-I.353	Supply of 50mm x 1½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>572</b>
948	BMW-I.354	Supply of 63mm x 2" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>761</b>
949	BMW-I.355	Supply of 75mm x 2½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>1467</b>
950	BMW-I.356	Supply of 20mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>147</b>
951	BMW-I.357	Supply of 25mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>152</b>
952	BMW-I.358	Supply of 25mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>222</b>
953	BMW-I.359	Supply of 32mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>232</b>
954	BMW-I.360	Supply of 32mm x 1" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>431</b>
955	BMW-I.361	Supply of 40mm x 1¼" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>505</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
956	BMW-I.362	Supply of 50mm x 1½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>706</b>
957	BMW-I.363	Supply of 63mm x 2" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>1086</b>
958	BMW-I.364	Supply of 75mm x 2½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	<b>1737</b>
959	BMW-I.365	Supply of 20mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>102</b>
960	BMW-I.366	Supply of 25mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>106</b>
961	BMW-I.367	Supply of 25mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>163</b>
962	BMW-I.368	Supply of 32mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>157</b>
963	BMW-I.369	Supply of 32mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>183</b>
964	BMW-I.370	Supply of 32mm x 1" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>306</b>
965	BMW-I.371	Supply of 20mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>152</b>
966	BMW-I.372	Supply of 25mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>167</b>
967	BMW-I.373	Supply of 25mm x ¾" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>221</b>
968	BMW-I.374	Supply of 32mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>212</b>
969	BMW-I.375	Supply of 32mm x 1" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	<b>458</b>
970	BMW-I.376	Supply of 20mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>98</b>
971	BMW-I.377	Supply of 25mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>108</b>
972	BMW-I.378	Supply of 25mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>179</b>
973	BMW-I.379	Supply of 32mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>189</b>
974	BMW-I.380	Supply of 32mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>212</b>
975	BMW-I.381	Supply of 32mm x 1" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>298</b>
976	BMW-I.382	Supply of 20mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>153</b>
977	BMW-I.383	Supply of 25mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>163</b>
978	BMW-I.384	Supply of 25mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>234</b>

<b>Sl. No</b>	<b>Item Code</b>	<b>Description of item</b>	<b>Unit</b>	<b>Basic Rate for SoR 2019-20 (Rs.)</b>
979	BMW-I.385	Supply of 32mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>240</b>
980	BMW-I.386	Supply of 32mm x¾"PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>253</b>
981	BMW-I.387	Supply of 32mm x 1" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	<b>467</b>
982	BMW-I.388	Supply of 20mm x ½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	<b>394</b>
983	BMW-I.389	Supply of 25mm x¾"PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	<b>591</b>
984	BMW-I.390	Supply of 32mm x1"PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	<b>789</b>
985	BMW-I.391	Supply of 40mm x1¼"PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	<b>1106</b>
986	BMW-I.392	Supply of 50mm x 1½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	<b>1777</b>
987	BMW-I.393	Supply of 63mm x 2" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	<b>2822</b>
988	BMW-I.394	Supply of 20mm x ½" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	<b>452</b>
989	BMW-I.395	Supply of 25mm x¾"PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	<b>601</b>
990	BMW-I.396	Supply of 32mm x1"PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	<b>789</b>
991	BMW-I.397	Supply of 40mm x1¼"PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	<b>986</b>
992	BMW-I.398	Supply of 50mm x 1½" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	<b>1875</b>
993	BMW-I.399	Supply of 63mm x 2" PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	<b>3159</b>
994	BMW-I.400	Supply of 20mm PPR Union conforming to DIN Standards 8077/8092	Each	<b>86</b>
995	BMW-I.401	Supply of 25mm PPR Union conforming to DIN Standards 8077/8092	Each	<b>101</b>
996	BMW-I.402	Supply of 32mm PPR Union conforming to DIN Standards 8077/8092	Each	<b>166</b>
997	BMW-I.403	Supply of 20mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	<b>157</b>
998	BMW-I.404	Supply of 25mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	<b>207</b>
999	BMW-I.405	Supply of 32mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	<b>218</b>
1000	BMW-I.406	Supply of 40mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	<b>445</b>
1001	BMW-I.407	Supply of 50mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	<b>519</b>

Sl. No	Item Code	Description of item	Unit	Basic Rate for SoR 2019-20 (Rs.)
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) Rate for 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		

**Note:-**

- 1) All Materials conforming to ISI or relevant International Standards shall be used in all CIVIL, Water Supply & Sanitary Fittings, Electrical and Electro-Mechanical Works.
- 5) Concerned departments shall approve the materials either from the manufacturer or from its authorized /certified dealer only and also to approve the brands of the products / materials to be adopted in their estimates at their end. In case common approval is required by the committee, concerned authority shall propose with all the details after thorough verification, to the committee for considering the proposal.
- 2) SSR rates for Civil and Water supply & Sanitary items are purely for 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 2019-20 are the ceiling rates only and the estimate preparing authorities are responsible for the correctness and reasonableness of the rates and technical specifications adopted in the estimates.

# **ELECTRICAL AND ELECTRO-MECHANICAL WORKS**

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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. Hence local manufacturers are considered as per Public Procurement order 2017, Ministry of Home affairs, Government of India.

**Chief Engineer(R&B) Electrical**

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		<b>SECTION - 1</b>		
	<b>1.1</b>	<b>M.S. CONDUIT PIPES</b>		
1	ELEC-1.1.1	Supply of ISI, ..... outer dia,..... thickness MS conduit pipe as per IS-9537 Part II Makes: NAI / Bharath / GB / AKG.		
	a	20 mm ( 1.6 mm thick)	1 RM	90
	b	25 mm ( 1.6 mm thick)	1 RM	115
	c	32 mm ( 1.6 mm thick)	1 RM	165
	d	38 mm ( 2.0 mm thick)	1 RM	270
	e	50 mm ( 2.0 mm thick)	1 RM	345
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	100
	e	50 mm	1 No	190
3	ELEC-1.1.3	Supply of .....MS Junction deep box.		
	a	20/25 mm	1 No	65
	b	32 mm	1 No	115
	c	40 mm	1 No	140
	d	50 mm	1 No	170
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	170
5	ELEC-1.1.5	Supply of ..... MS Inspection Tee.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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	85
	e	50 mm	1 No	175
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	160
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	1210
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	625
	e	50 mm	100 Nos	790
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.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	<b>1.2</b>	<b>PVC CONDUIT PIPES</b>		
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 /Polycab/Anchor/ Polyline/ Orbit/AKG		
	a	20 mm(2.10mm thickness)	1 RM	25
	b	25 mm(2.20mm thickness)	1 RM	33
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 /Polycab/Anchor/ Polyline/ 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	53
	e	50mm (2.85 mm thickness)	1 RM	75
	<b>NOTE:Add 5% extra on above price for Red/Yellow/Blue/Black/Green Colour PVC pipes for specific purpose Usage</b>			
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	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/ Orbit/Anchor/AKG/Polycab		
	a	19/20 mm	1 No	19
	b	25mm	1 No	20
	c	32mm	1 No	35
	d	40mm	1 No	37
	e	50 mm	1 No	50
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	23
	b	25mm	1 No	25
	c	32mm	1 No	40
	d	40/38 mm	1 No	44
	e	50 mm	1 No	64

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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	6
	b	25mm dia 1.5mm thick	1 No	8
	c	32mm dia 2.0mm thick	1 No	18
	d	40 mm dia 2.0mm thick	1 No	20
	e	50 mm dia 2.0mm thick	1 No	29
20	ELEC-1.2.9	Dummy Cover for PVC junction boxes	1 No	5
	<b>1.3</b>	<b>HOT DIP GALVANIZED METAL BOXES for switch boards</b>		
21	ELEC-1.3.1	Supply of..... Hot Dip galvanized 20/18 SWG Module box with earthing terminal		
	a	1 or 2	1 No	57
	b	3	1 No	80
	c	4	1 No	95
	d	6	1 No	130
	e	8 or 9	1 No	170
	f	12	1 No	205
		<b>METALLIC BOXES</b>		
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	1 No	225
	<b>1.4</b>	<b>T.W. BOARDS</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	c	30mm.	100 Nos	90
	d	35/38mm.	100 Nos	100
	e	50mm	100 Nos	116
	f	63/75mm.	100 Nos	140
	<b>1.5</b>	<b>COPPER FLEXIBLE CABLES (AS PER IS:694)</b>		
28	ELEC-1.5.1	Supply of FRLS-H / HFFR PVC insulated 1100V grade as per IS : 694 / 1990 specification for Copper cable. Makes: Finolex / RR kabel / Havells /KEI/Polycab/Gloster		
	a	14/0.3mm (1.0 Sqmm)	100 RM	1050

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	b	22/0.3mm (1.5 Sqmm)	100 RM	1510
	c	36/0.3mm (2.5 Sqmm)	100 RM	2440
	d	56/0.3mm (4.0 Sqmm)	100 RM	3725
	e	84/0.3mm (6.0 Sqmm)	100 RM	5700
	f	140/0.3mm (10.0 Sqmm)	100 RM	8800
	g	126/0.4mm (16.0 Sqmm)	100 RM	13900
29	ELEC-1.5.2	Supply of ..... FRLS / HFFR / ZHFR PVC insulated 1100V grade as per IS : 694 / 1990 specification for Copper cable. Makes: V-Guard/Bonton /Finecab/ HPL / GM / Million / Goldmedal /Fortune Art / Sudhakar/Orbit/ Tamra/ Anchor/Plaza/Vihan/Ollvin		
	a	14/0.3mm (1.0 Sqmm)	100 RM	925
	b	22/0.3mm (1.5 Sqmm)	100 RM	1320
	c	36/0.3mm (2.5 Sqmm)	100 RM	2140
	d	56/0.3mm (4.0 Sqmm)	100 RM	3300
	e	84/0.3mm (6.0 Sqmm)	100 RM	5100
	f	140/0.3mm (10.0 Sqmm)	100 RM	7750
	g	126/0.4mm (16.0 Sqmm)	100 RM	12900
30	ELEC-1.5.3	Supply of ..... FRLS / ZHFR PVC insulated 1100V grade as per IS : 694 / 1990 specification for Copper cable. Makes: Star / Airson/ Benlo / Gemscab /Rajnigandha/ Avocab/CRI/Salzer/AKG		
	a	14/0.3mm (1.0 Sqmm)	100 RM	800
	b	22/0.3mm (1.5 Sqmm)	100 RM	1120
	c	36/0.3mm (2.5 Sqmm)	100 RM	1800
	d	56/0.3mm (4.0 Sqmm)	100 RM	2700
	e	84/0.3mm (6.0 Sqmm)	100 RM	4200
	f	140/0.3mm (10.0 Sqmm)	100 RM	6650
	g	126/0.4mm (16.0 Sqmm)	100 RM	10200
		<b>SHEATHED FLEXIBLE COPPER CABLES</b>		
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 kabel / Havells /KEI/Polycab/Gloster		
	a	Single Core 25 Sqmm	1 RM	220
	b	Single Core 35 Sqmm	1 RM	310

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	c	Single Core 50 Sqmm	1 RM	440
	d	Single Core 70 Sqmm	1 RM	600
	e	2 core 1.5 Sqmm	1 RM	45
	f	2 core 2.5 Sqmm	1 RM	70
	g	2 core 4.0 Sqmm	1 RM	95
	h	2 core 6 Sqmm	1 RM	145
	i	2 core 10 Sqmm	1 RM	210
	j	2 core 16 Sqmm	1 RM	250
	k	3 core 1.5 Sqmm	1 RM	60
	l	3 core 2.5 Sqmm	1 RM	100
	m	3 core 4.0 Sqmm	1 RM	140
	n	3 core 6 Sqmm	1 RM	175
	o	3 core 10 Sqmm	1 RM	230
	p	3 core 16 Sqmm	1 RM	370
	q	4 core 1.5 Sqmm	1 RM	80
	r	4 core 2.5 Sqmm	1 RM	125
	s	4 core 4.0 Sqmm	1 RM	190
	t	4 core 6 Sqmm	1 RM	280
	u	4 core 10 Sqmm	1 RM	430
	v	4 core 16 Sqmm	1 RM	545
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: V-Guard/Bonton /Finecab/ HPL / GM / Million / Goldmedal /Fortune Art / /Sudhakar/Orbit/ Tamra/Anchor/Plaza/Vihan/Oilvin		
	a	Single Core 25 Sqmm	1 RM	195
	b	Single Core 35 Sqmm	1 RM	285
	c	Single Core 50 Sqmm	1 RM	385
	d	Single Core 70 Sqmm	1 RM	555
	e	2 core 1.5 Sqmm	1 RM	40
	f	2 core 2.5 Sqmm	1 RM	60
	g	2 core 4.0 Sqmm	1 RM	85

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	h	2 core 6 Sqmm	1 RM	135
	i	2 core 10 Sqmm	1 RM	190
	j	2 core 16 Sqmm	1 RM	240
	k	3 core 1.5 Sqmm	1 RM	55
	l	3 core 2.5 Sqmm	1 RM	90
	m	3 core 4.0 Sqmm	1 RM	120
	n	3 core 6 Sqmm	1 RM	165
	o	3 core 10 Sqmm	1 RM	215
	p	3 core 16 Sqmm	1 RM	340
	q	4 core 1.5 Sqmm	1 RM	70
	r	4 core 2.5 Sqmm	1 RM	100
	s	4 core 4.0 Sqmm	1 RM	160
	t	4 core 6 Sqmm	1 RM	260
	u	4 core 10 Sqmm	1 RM	395
	v	4 core 16 Sqmm	1 RM	515
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
	<b>1.6</b>	<b>SERVICE MAINS AND FLAT CABLE FOR SUBMERSIBLE MOTORS.</b>		
34	ELEC-1.6.1	Supply of .....WPSC (Weather Proof Single Core) ISI Alluminium Wire. Makes: Gold Medal / Million / GM / Vimal / Finecab / Nakoda / Plaza/ Payal / Sudhakar/ Rajnigandha/ Airson/Orbit/ollvin		
	a	2.5 Sqmm	100 RM	690
	b	6 Sqmm	100 RM	1375
	c	10 Sqmm	100 RM	1500
	d	16 Sqmm	100 RM	2500
35	ELEC-1.6.2	Supply of .....WPTC (Weather Proof Twin Core) ISI Alluminium Wire. Makes: Gold Medal / Million / GM / Vimal / Finecab / Nakoda / Plaza/ Payal / Sudhakar/ Rajnigandha/ Airson/Orbit/ollvin		
		6 Sqmm	100 RM	2800
		10 Sqmm	100 RM	3385

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
36	ELEC-1.6.3	Supply of 3 Core..... Flat Copper cable of ISI for Submersible Motors confirming to IS:694:1990. Makes: Finolex / RR Kabel/ 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 / Vihan/Vimal /Finecab/ CRI/ Lubi/Hitech/ Airson/Ollvin		
	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
	<b>1.7</b>	<b>FLUSH TYPE SWITCHES AND ACCESSORIES</b>		
38	ELEC-1.7.1	Supply of ..... Makes: GM G Home / Gold Medal Olive / Million Zoom / Great white Omega/Koncept/Vimal opel/ Anchor/Vihan/CPL		
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	j	16A flush type Switch Socket combined (2 in one).	1 No	90
	k	16A Triangle Plug Top	1 No	45
	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
	<b>1.8</b>	<b>MODULAR SWITCHES AND ACCESSORIES</b>		
39	ELEC-1.8.1	Supply of ..... Makes: Legrand Arteor / Schneider Zen celo/ Crabtree Murano or Amare/L&T-englaze/ GM-Zenova/ Goldmedal(GIFA)		
	a	6A / 10A 1 Way 1 Module Modular Switch.	1 No	85

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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	2 Module Modular type Electronic step type Fan Regulator.	1 No	450
	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
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/ IndoAsian/Pointer/ CPL/Kolors/ Vihan/Hosper		
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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	2 Module Modular type Electronic step type Fan Regulator.	1 No	365
	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
		<b>COVER FRAMES</b>		
41	ELEC-1.8.3	Supply of ..... Makes: Legrand Arteor / Schneider Zen celo/ Crabtree Murano or Amare/L&T-englaze/ GM-Zenova/ Goldmedal(GIFA)		
	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
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/ IndoAsian/Pointer/ CPL/Kolors/ Vihan/Hosper		
	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
	g	<b>SECTION - 2</b>		
	<b>2.1</b>	<b>PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS ( SDFU )</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 / Schneider / 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
	<b>2.2</b>	<b>ON LOAD CHANGEOVER SWITCHES (OPEN EXECUTION)</b>		
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		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	<b>2.3</b>	<b>OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE</b>		
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	7550
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
	<b>2.4</b>	<b>AUTO TRANSFER SWITCH</b>		
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		
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
	<b>2.5</b>	<b>REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE</b>		
51	ELEC-2.5.1	Supply of ..... Rewirable Fuse Switch in SS enclosure as per IS:13947 Makes: HPL / Havells / Standard / Indo Asian/Benlo		
	a	32A 240V SPN	1 No	850
	b	32A 415V TPN	1 No	1900
	c	63A 415V TPN	1 No	3900
	d	100A 415V TPN	1 No	7200
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 /Benlo		
	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 / 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
	d	100A 415V TPN	1 No	4200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 / Star/Kundan cab/Anchor.		
	a	100A 415V TPN	1 No	4300
	b	200A 415V TPN	1 No	7000
	<b>2.6</b>	<b>HRC FUSE LINKS (DIN/BOLTED TYPE)</b>		
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	50
	b	45A to 63A	1 No	75
	c	100 A to 160 A	1 No	235
	d	250A to 350A	1 No	350
	e	400A	1 No	665
	f	630A	1 No	1330
	<b>2.7</b>	<b>PORCELAIN REWIRABLE FUSE UNITS.</b>		
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	1100
	<b>2.8</b>	<b>VOLTAGE SURGE PROTECTORS</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	<b>2.9</b>	<b>PANEL MOUNTING MCCBs</b>		
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	7500
	d	125A 4 Pole MCCB,25 KA	1 No	8700
	e	160A 3 Pole MCCB,25 KA	1 No	9500
	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	56000
	n	800A 4 Pole MCCB,50 KA	1 No	60000
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		
	a	63A / 60A 3 Pole MCCB,16 KA	1 No	4500
	b	63A / 60A 4 Pole MCCB,16 KA	1 No	5850
	c	125A 3 Pole MCCB,25 KA	1 No	5700
	d	125A 4 Pole MCCB,25 KA	1 No	7450
	e	160A 3 Pole MCCB,25 KA	1 No	7800
	f	160A 4 Pole MCCB,25 KA	1 No	10300
	g	250A 3 Pole MCCB,36/35 KA	1 No	15200
	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	27000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	l	630A 4 Pole MCCB,50 KA	1 No	32600
	m	800A 3 Pole MCCB,50 KA	1 No	46500
	n	800A 4 Pole MCCB,50 KA	1 No	52000
		<b>PANEL MOUNTING ACBs (Microprocessor Based)</b>		
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	152000
	h	1000A 4 Pole, 50kA Electrically drawout	1 No	190000
	i	1250A 3 Pole, 50kA Electrically drawout	1 No	200000
	j	1250A 4 Pole, 50kA Electrically drawout	1 No	245000
	k	1600A 3 Pole, 50kA Electrically drawout	1 No	225000
	l	1600A 4 Pole, 50kA Electrically drawout	1 No	260000
	m	2000A 3 Pole, 75kA Electrically drawout	1 No	263000
	n	2000A 4 Pole, 75kA Electrically drawout	1 No	320000
	o	2500A 3 Pole, 75kA Electrically drawout	1 No	360000
	p	2500A 4 Pole, 75kA Electrically drawout	1 No	440000
	q	3200A 3 Pole, 75kA Electrically drawout	1 No	370000
	r	3200A 4 Pole, 75kA Electrically drawout	1 No	470000
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		
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
		<b>AIR INSULATED BUS DUCT</b>		
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 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 side0 including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required Makes: Legrand (Zucchini) / C&S/Advance-Anant		
	a	400Amp, 50 - 53KA	RM	8750
	b	630Amp, 50 - 63KA	RM	10400
	c	800 Amp, 50 - 76KA	RM	11400
	d	1000 Amp, 50 - 76KA	RM	13100
	e	1250 Amp, 50 - 76KA	RM	13700
	f	1600 Amp, 50 - 76KA	RM	17200
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/Advance-Anant	1 No	5200
65	ELEC-2.9.7	Supply and Fixing of ..... Amps Horizontal / Vertical bends for Air Insulated Bus Duct .Makes: Legrand (Zucchini) / C&S /Advance-Anant		
	a	400 Amps	1 No	10000
	b	630 Amps	1 No	11400
	c	800 Amps	1 No	11900
	d	1000Amps	1 No	13950
	e	1250 Amps	1 No	15000
	f	1600 Amps	1 No	17000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
66	ELEC-2.9.8	Supply and Fixing of .....Amps Tap off box for Air Insulated Busduct. Makes: Legrand (Zucchini) / C&S/Advance-Anant		
	a	125A	1 No	11900
	b	250A	1 No	13800
	c	400A	1 No	20400
	d	630 A	1 No	22200
		<b>SANDWITCH BUSDUCT</b>		
67	ELEC-2.9.9	Supply, instalation, testing and commisioning of .....Amp, .....KA breaking capacity (100% Neutral busbar) sandwitch 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 convinent sections including 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) / L&T / Schneider/C&S/Advance-Anant		
	a	630Amp, 36/40	RM	10700
	b	800Amp, 42/50KA	RM	12000
	c	1000Amp, 50KA	RM	13200
	d	1250 Amp,75kA	RM	13800
	e	1600 Amp,80 kA	RM	17300
	f	2000 Amp ,80kA	RM	21200
	g	2500 Amp ,150 kA	RM	30400
	h	3200 Amp,160kA	RM	35200
	i	4000 Amp,160kA	RM	47100
68	ELEC-2.9.10	Supply and Fixing of .....Amps Horizontal / Vertical bends for sandwitch Bus Duct .Makes: Legrand (Zucchini) / L&T / Schiender / C&S /Advance-Anant		
	a	630A	1 No	10900
	b	800A	1 No	11800
	c	1000A	1 No	12300
	d	1250 A	1 No	13300
	e	1600 A	1 No	15200
	f	2000 A	1 No	17700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	g	2500 A	1 No	22300
	h	3200 A	1 No	27100
	i	4000 A	1 No	30400
69	ELEC-2.9.11	Supply and Fixing of ..... Amps Copper Flexibles for three phases and neutral for <b>Air Insulated / sandwich</b> Busduct . Makes: Legrand (Zucchini) / L&T / Schiender /C&S/Advance-Anant		
	a	400A	1 No	23300
	b	630A	1 No	24700
	c	800A	1 No	26900
	d	1000A	1 No	28300
	e	1250 A	1 No	30000
	f	1600 A	1 No	32300
	g	2000 A	1 No	35200
	h	2500 A	1 No	40000
	i	3200 A	1 No	42800
	j	4000 A	1 No	45700
69	ELEC-2.9.12	Supply and fixing of Flange end for .....Amps for Air insulated Busdusts . Makes: Legrand (Zucchini) / Schiender /C&S/Advance-Anant		
	a	400A	1 No	9000
	b	630A	1 No	12300
	c	800A	1 No	15200
70	ELEC-2.9.13	Supply and fixing of Flange end for .....Amps for Sandwich Busdusts . Makes: Legrand (Zucchini) / L&T / Schiender /C&S/Advance-Anant		
	a	400A	1 No	10900
	b	630A	1 No	15600
	c	800A	1 No	18100
	d	1000 A	1 No	19100
	e	1250 A	1 No	13200
	f	1600 A	1 No	14900
	g	2000 A	1 No	23200
	h	2500 A	1 No	39300
	i	3200 A	1 No	43000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	j	4000 A	1 No	45200
71	ELEC-2.9.14	Supply and Fixing of .....Amps Tap off box for Sandwich Busduct. Makes: Legrand (Zucchini) / L&T / Schiender /C&S/Advance-Anant		
	a	160A	1 No	15000
	b	250A	1 No	25200
	c	400A	1 No	31900
	d	630A	1 No	46300
	e	800A	1 No	69500
	<b>2.10</b>	<b>MCBs (AS PER IS:60898-1:2002)</b>		
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/Indo Asian-Opti pro		
	a	6-32A SP MCB	1 No	190
	b	40-63A SP MCB	1 No	400
	c	6-32A DP MCB	1 No	575
	d	40-63A DP MCB	1 No	915
	e	6-32A TP MCB	1 No	915
	f	40-63A TP MCB	1 No	1470
	g	6-32A FP MCB	1 No	1260
	h	40-63A FP MCB	1 No	1835
73	ELEC-2.10.2	Supply of ,..... 10KA C/D Curve ISI Mark. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / C&S /L&T-Exora/ GM /Gold Medal/ Anchor/Salzer /Polycab		
	a	6-32A SP MCB	1 No	160
	b	40-63A SP MCB	1 No	345
	c	6-32A DP MCB	1 No	485
	d	40-63A DP MCB	1 No	700
	e	6-32A TP MCB	1 No	755
	f	40-63A TP MCB	1 No	1140
	g	6-32A FP MCB	1 No	1030
	h	40-63A FP MCB	1 No	1430
74	ELEC-2.10.3	Supply of 6-32A 10KA SP MCB, C/D Curve ISI Mark. Makes:Milltec/ Sputnik / Benlo / Vimal /Precision/Amron.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	a	6-32A SP MCB	1 No	130
	b	40-63A SP MCB	1 No	220
	c	6-32A DP MCB	1 No	340
	d	40-63A DP MCB	1 No	500
	e	6-32A TP MCB	1 No	610
	f	40-63A TP MCB	1 No	950
	g	6-32A FP MCB	1 No	800
	h	40-63A FP MCB	1 No	1020
	<b>2.11</b>	<b>ISOLATORS CONFIRMS TO I E C 60947 PART-III</b>		
75	ELEC-2.11.1	Supply of ..... Isolator. Makes: Legrand-DX3 / Schneider-Acti9/Hager-h3/ Siemens-5SX4/ Crabtree-Xpro/L&T-AU/Indo Asian-Opti pro		
	a	32A DP	1 No	325
	b	40A DP	1 No	360
	c	63A DP	1 No	475
	d	40A TP	1 No	610
	e	63A TP	1 No	720
	f	40A FP	1 No	800
	g	63A FP	1 No	900
	h	100A FP	1 No	950
76	ELEC-2.11.2	Supply of ..... Isolator. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / C&S /L&T-Exora/ GM /Gold Medal/ Anchor/Salzer /Polycab		
	a	32A DP	1 No	315
	b	40A DP	1 No	330
	c	63A DP	1 No	400
	d	40A TP	1 No	570
	e	63A TP	1 No	580
	f	40A FP	1 No	660
	g	63A FP	1 No	710
	h	100A FP	1 No	875

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
77	ELEC-2.11.3	Supply of..... Isolator. Makes: Milltec / Sputnik / Benlo / Vimal/ Precision/Amron.		
	a	32A DP	1 No	210
	b	40A DP	1 No	250
	c	63A DP	1 No	340
	d	40A TP	1 No	365
	e	63A TP	1 No	420
	f	40A FP	1 No	565
	<b>2.12</b>	<b>RCCBs(ELCB/RCD) CONFIRMS TO IEC:61008 AND IS:12640-1</b>		
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/Indo Asian-Opti pro		
	a	40A 2 Pole,30mA	1 No	2670
	b	40A 2 Pole,100mA	1 No	2830
	c	40A 4 Pole30mA	1 No	2940
	d	40A 4 Pole ,100mA	1 No	3050
	e	63A 2 Pole,30mA,	1 No	3300
	f	63A 2 Pole,100mA	1 No	3250
	g	63A 4 Pole,30mA	1 No	3400
	h	63A 4 Pole,100mA	1 No	3780
79	ELEC-2.12.2	Supply of ..... RCCB for earth leakage protection. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / C&S /L&T-Exora/ GM /Gold Medal/ Anchor/Salzer /Polycab		
	a	40A 2 Pole,30mA	1 No	2250
	b	40A 2 Pole,100mA	1 No	2300
	c	40A 4 Pole30mA	1 No	2500
	d	40A 4 Pole ,100mA	1 No	2600
	e	63A 2 Pole,30mA,	1 No	2810
	f	63A 2 Pole,100mA	1 No	2880
	g	63A 4 Pole,30mA	1 No	2990
	h	63A 4 Pole,100mA	1 No	3000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		<b>RCBO CONFIRMS TO IEC:61009-1</b>		
80	ELEC-2.12.3	Supply of .....RCBO for over load, short-circuit and earth leakage protection. Makes: ABB- S200/Standard / Havells-euro II / HPL (Techno) / C&S /L&T-Exora/ GM /Gold Medal/ Anchor/Salzer /Polycab		
	a	40A 2 Pole,30mA	1 No	4550
	b	40A 2 Pole,100mA	1 No	4970
	c	40A 4 Pole30mA	1 No	5170
	d	40A 4 Pole ,100mA	1 No	5470
	e	63A 2 Pole,30mA,	1 No	5440
	f	63A 2 Pole,100mA	1 No	5760
	g	63A 4 Pole,30mA	1 No	6100
	h	63A 4 Pole,100mA	1 No	6220
	ELEC-2.12.4	Supply of MCB type Changeover switch 20A Double Pole 2 Way 400V AC suitable to fix on Din Channel	1 No	1800
	<b>2.13</b>	<b>MCB DISTRIBUTION BOARDS (AS PER IS 8623; IS 13032; IEC 61439-3)</b>		
		<b>SPN DBs</b>		
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/Indo Asian-Opti Pro.		
	a	4 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	4 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) / C&S / L&T/GM /Gold Medal/Anchor/Salzer/Polycab		
	a	4 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	d	4 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/Precision/ Amron.		
	a	4 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	4 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
		<b>TPN DBs</b>		
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/Indo Asian-Opti Pro.		
	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	2700
	d	(8 +18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1 No	3800
	e	(8 +24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1 No	4300
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) / C&S / L&T/GM /Gold Medal/Anchor/Salzer/Polycab		
	a	(8 +12) 4 Way TPN DB Horizontal with IP 30, 12 Nos	1 No	1550
	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	2400
	d	(8 +18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1 No	3300
	e	(8 +24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1 No	3800
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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	1850
	d	(8 +18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1 No	2400
	e	(8 +24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1 No	2800
		<b>VTPN DBs</b>		
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/Indo Asian-Opti Pro.		
	a	4 Way VTPN DB with IP 43	1 No	6930
	b	6 Way VTPN DB with IP 43	1 No	8030
	c	8 Way VTPN DB with IP 43	1 No	8910
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/Indo Asian-Opti Pro.		
	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-Newrange/Indo Asian-Opti Pro.		
	a	4 Way VTPN DB with IP 43 Protection.	1 No	9020
	b	8 Way VTPN DB with IP 43 Protection.	1 No	11330
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) / C&S / L&T/GM /Gold Medal/Anchor/Salzer		
	a	4 Way VTPN DB with IP 43	1 No	6100
	b	6 Way VTPN DB with IP 43	1 No	6500
	c	8 Way VTPN DB with IP 43	1 No	7600
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/ C&S/L&T/Anchor..		
	a	4 Way TPN DB,12 Nos	1 No	6400

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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) / 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/Indo Asian-Opti Pro.		
	a	20A SP	1 No	985
	b	20A TP	1 No	1865
	c	32A TP	1 No	2200
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) / C&S / L&T/GM /Gold Medal/Anchor/Salzer/Polycab		
	a	20A SP	1 No	700
	b	20A TP	1 No	1250
	c	32A TP	1 No	1650
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	525
	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/Indo Asian-Opti Pro.		
	a	SP	1 No	300
	b	DP/TP/FP	1 No	400
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/ C&S /L&T/ GM /Anchor/Gold Medal /Polycab		
	a	SP	1 No	230

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
		<b>SECTION - 3</b>		
	<b>3.1</b>	<b>STREET LIGHT LUMINAIRES</b>		
99	ELEC-3.1.1	Supply of fluorescent street light luminaire with sheet alluminium 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 alluminium 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 alluminium 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 alluminium 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 alluminium 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
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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: Bajaj / Crompton / Surya / Capart / RK / Prolite		
	a	500W	1 No	450
	b	1000W	1 No	850
	<b>3.2</b>	<b>LED POST TOP LANTERN LUMINAIRES</b>		
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/ Halonix	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 equivalent in Philips/Wipro	1 No	19000
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 Philips	1 No	23500
	<b>3.3</b>	<b>ACCESSORIES FOR MV / SV / MH LUMINAIRES</b>		
		<b>COPPER BALLASTS</b>		
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		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
		<b>IGNITOR</b>		
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
		<b>HPF CAPACITORS</b>		
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
	<b>3.4</b>	<b>LAMPS</b>		
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
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	<b>3.5</b>	<b>AUTOMATIC STREET LIGHT CONTROL SYSTEMS</b>		
116	ELEC-3.5.1	Supply of Automatic Street Light Control System with Optical Micro Sensor, Low voltage / 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: Swadep Nature Switch / Lightmate/ GL/Bajaj		
	a	1 KW	1 No	9000
	b	3 KW	1 No	11300
	c	5 KW	1 No	11800
	d	8 KW	1 No	13500
117	ELEC-3.5.2	Supply of Automatic Street Light Control System with Optical Micro Sensor, Low voltage / 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: Swadep Nature Switch / Light Mate /GL/Bajaj		
	a	5 KW	1 No	14800
	b	8 KW	1 No	15300
	c	12 KW	1 No	18500
	d	25KW	1 No	29400
	e	50KW	1 No	42000
	<b>3.6</b>	<b>INTERNAL LUMINAIRES</b>		
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
	b	2 x 36/40W	1 No	1000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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		
	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
		<b>ACCESSORIES</b>		
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
	<b>3.7</b>	<b>FLOURSCENT TUBES / CFL LAMPS / LED BULBS</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
131	ELEC-3.7.3	Supply of 36/40W fluorescent tube. Makes: Phillips / Crompton / Bajaj / Surya / Style Lamp / Capart	1 No	40
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
		<b>LED BULBS</b>		
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/HPLSyska / Green Lites / Fortune Art / GoldMedal /R LED/Luker/Leo/Orbit		
	a	0.5W LED	1 No	50
	b	3.0W LED	1 No	110
	c	5.0W LED	1 No	120
	d	7.0W LED	1 No	140
135	ELEC-3.7.6	Supply of 3W to 5W 3000K, AC 160-260V, LED Candel Lamp for shandliers. Makes: Phillips /Crompton / Bajaj / Havells / Halonix/GM/HPLSyska / Green Lites / Fortune Art / GoldMedal /R LED/Luker/Leo/Orbit	1 No	200
	<b>3.8</b>	<b>LED LUMINAIRES INDOOR</b>		
		<b>DOWN LIGHTERS</b>		
137	ELEC-3.8.1	Supply and fixing of..... heavy duty LED Down lighter, suitable for Recessed mounting made of pressure diecast aluminium body with powder coating, acrylic diffuser with Driver as per IS: 15885 (Part 2/ Sec 13) : 2012 , operating voltage- Venture range- Venture of 150 to 265 Volts AC, P.F > 0.9, Surge- Venture protection: 2KV, THD<10% with high power LED's having efficacy of > 100 lumens / watt, CCT: 3000K - 5700K, minimum CRI > 70, Luminaire performance complies to IS 10322 (Part 5 / Sec-3) etc., complete a) LUMINAIRE MAKE : Phillips / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG/Everlight.		
	a	6W	1 No	750
	b	9W	1 No	950

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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 pressure 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 > 90 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 / Enrich / Stanjo / Polycab/ Ib LED/ Oppl/R LED/Luker/ Orbit/Trinic/Panasonic b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT		
	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
139	ELEC-3.8.3	Supply and fixing of..... heavy duty LED Down lighter, suitable for Recessed / Surface mounting made of pressure 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 > 80 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 / Siger/ Koncept/ Kiran/Vibrant/Leo/Lumens/Ilite b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT	1 No	
	a	6W	1 No	610
	b	9W	1 No	785
	c	12W	1 No	1110
	d	15W	1 No	1195
	e	18W	1 No	1285
		<b>LED PANEL LIGHTS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 > 100 lumens/watt,CCT: 3000K - 5700K, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Phillips / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG/Everlight.	1 No	
	a	3W	1 No	290
	b	6W	1 No	500
	c	12W	1 No	830
	d	15W	1 No	1050
	e	18W	1 No	1150
	f	24W	1 No	1450
	g	36W/40W (600mm x 600mm) square type	1 No	3550
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 > 90 lumens/watt,CCT: 3000K - 5700K, minimum CRI>70, .etc., complete Makes : Surya /C&S/ Fortune Art / Syska / Enrich / Stanjo / Polycab/ Ib LED/ Oppl/R LED/Luker/ Orbit/Trinic/Lumen/Panasonic b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT		
	a	3W	1 No	280
	b	6W	1 No	490
	c	12W	1 No	800
	d	15W	1 No	1025
	e	18W	1 No	1100
	f	24W	1 No	1350
	g	36W/40W (600mm x 600mm) square type	1 No	3450

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 > 80 lumens/watt,CCT: 3000K - 5700K, minimum CRI>70, .etc., complete a) LUMINAIRE MAKE : Pasolite / Cosmo / Siger/ Koncept/ Kiran/Vibrant/Leo/Ilite b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT/ San'an		
	a	3W	1 No	265
	b	6W	1 No	460
	c	12W	1 No	750
	d	15W	1 No	1000
	e	18W	1 No	1035
	f	24W	1 No	1300
		<b>COB DOWN LIGHTS</b>		
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 / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready b) LED MAKE : Bridge Lux / LUMILEDS / CREE / NICHIA / Epistar/ Sunpo/Samsung		
	a	9 / 10 W	1 No	1350
	b	15 / 16 W	1 No	1750
	c	18 / 20 W	1 No	1950
	d	30 W	1 No	3100
	f	45 W	1 No	3400
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 : Surya /C&S/ Fortune Art / Syska / Enrich / Stanjo / Polycab/ Ib LED/ Opple/R LED/Luker/ Orbit/Trinic/Panasonic/Lumens b) LED MAKE : Bridge Lux / LUMILEDS / CREE / NICHIA / Epistar/ Sunpo/Samsung		
	a	9 / 10 W	1 No	1300
	b	15/ 16W	1 No	1650
	c	18 / 20W	1 No	1850

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	d	30W	1 No	3000
		<b>SPOT LIGHTS / WALL WASHERS</b>		
145	ELEC-3.8.9	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-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready 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
146	ELEC-3.8.10	Supply and fixing 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 Makes : Surya /C&S/ Fortune Art / Syska / Enrich / Stanjo / Polycab/ Ib LED/ Oppl/R LED/Luker/ Orbit/Trinic/Panasonic 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 aluminium 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 / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/ GreenLites/HPL /Eveready 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 aluminium 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 : Surya / Fortune Art / Polycab/ Oppl/Luker/ Orbit b) LED MAKE : Bridge Lux/ CREE / NICHIA / Epistar		
	a	18W	1 No	3800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	b	24W	1 No	4650
		<b>LED BATTENS AND 2' x 2' LUMINARIES</b>		
149	ELEC-3.8.13	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. a) LUMINAIRE MAKE : Phillips / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG/Everlight.	1 No	800
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 : Surya /C&S/ Fortune Art / Syska / Enrich / Stanjo / Polycab/ Ib LED/ Oppl/R LED/Luker/ Orbit/Panasonic/Trinic/Lumen b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT	1 No	720
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. a) LUMINAIRE MAKE : Pasolite / Cosmo / Siger/ Koncept/ Kiran/Vibrant/Leo/ilite b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT	1 No	600
152	ELEC-3.8.16	Supply and fixing of 20W,2000 lumens T8,1200mm length LED retrofit tube light with aluminium anodised body, 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 a) LUMINAIRE MAKE : Phillips / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.	1 No	710

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
153	ELEC-3.8.17	Supply and fixing of 20W,1900 lumens T8,1200mm length LED retrofit tube light with aluminium anodised body, 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 : Surya /C&S/ Fortune Art / Syska / Enrich / Stanjo / Polycab/ Ib LED/ Oppl/R LED/Luker/ Orbit/Panasonic/Trinic/Lumens/ilite b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT	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
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 ≥ 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 > 100 lumens / watt, CCT: 3000K - 5700K, minimum CRI>70, .etc., complete. a) LUMINAIRE MAKE : Phillips / GE-Venture / Crompton / Wipro / Bajaj / Havells / Halonix/Jaquar/HPL/GM / GreenLites / Gold Medal/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG/Everlight.		
	a	36 W	1 No	3500
	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 > 90 lumens/watt, junction temperature less than 85 degrees centigrade and THD is less than 10% etc., complete Makes : Surya /C&S/ Fortune Art / Syska / Enrich / Stanjo / Polycab/ Ib LED/ Oppl/R LED/Luker/ Orbit/Panasonic/Trinic/ilite b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / EVERLIGHT.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	a	36 W	1 No	3300
	b	45 W	1 No	3700
	ELEC-3.8.22	Supply of 10W LED Bulk head fitting with Pressure die cast aluminum with opal diffuser with IP 65 Protection etc., complete., Makes : Philips/Bajaj / Crompton / Surya / Havells / Greenlites/ Insta Power/HPL /Halonix/ Panasonic.	1 No	1100
		<b>LED STREET LIGHTS</b>		
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 > 100 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(Skyline) / Philips (Green line) / GE-Venture / Crompton(Hawk/Nexus star) / Bajaj (Edge) / Halonix(Lumos - Super) / Havells (Endura Pearl) /Capart(Premium)/Greenlites(Hi-Lux) /Polycab/Keselec/ HPL(City Vision)/ Jaquar(Premium)/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG		
	a	20W	1 No	1980
	b	30W	1 No	3100
	c	45W	1 No	4700
	d	60W	1 No	5900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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(Skyline) / Philips (Greenline Extra) / GE-Venture / Nexus star / Bajaj (Edge) / Halonix (Modular/ Lumos-Super) / Havells (Endura City liner Neo) /Greenlites(HI-Lux) /Capart(Premium)/Polycab /Keselec / HPL(City Vision)/Jaquar (Premium) /Eveready b) LED MAKE :PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG.		
	a	90W	1 No	9200
	b	120W	1 No	11900
	c	150W	1 No	13750
	d	180W	1 No	15500
	e	210W	1 No	20000
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 / GM / C&S/ VIN/Gold Medal /Pharox / Cosmo / Enrich / Renesola / Stanjo / Goldwyn/ Ib LED/R LED/ Orbit/ Luker/Trinic b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / LG.		
	a	20W	1 No	1850
	b	30W	1 No	2880
	c	45W	1 No	4500
	d	60W	1 No	5600
	e	90W	1 No	8700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	f	120W	1 No	10500
	g	150W	1 No	12600
	h	180W	1 No	14400
	i	210W	1 No	17550
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/Leo/Lumens/Ilite b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / LG.		
	a	20W	1 No	1755
	b	30W	1 No	2550
	c	45W	1 No	4200
	d	60W	1 No	5200
	e	90W	1 No	8100
	f	120W	1 No	9500
		<b>FLOOD LIGHTS</b>		
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 /Greenlites / Havells/Capart(Premium) /Halonix/Polycab/Keselec/HPL/Jaquar/Eveready b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG.		
	a	50/60W	1 No	5850
	b	90/100W	1 No	10350
	c	120W	1 No	13410
	d	150W	1 No	15750
	e	200W	1 No	18900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	f	250W	1 No	22050
	g	300 W	1 No	26100
	h	400W	1 No	30150
163	ELEC-3.8.28	Supply and transportation of ..... LED Flood light Luminaire made of pressure diecast alluminium 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 Ingrees 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 / Fortune Art / GM / Goldmedal / Syska / C&S/Cosmo/ Ib LED/ Vibrant/ Stanjo/Enrich/R Led/Orbit/Luker/Trinic/Ilite b) LED MAKE : CREE / NICHIA / OSRAM / SAMSUNG / LG		
	a	50/60W	1 No	5220
	b	90/100W	1 No	9450
	c	120W	1 No	12150
	d	150W	1 No	14400
	e	200W	1 No	17100
		<b>HIGH BAY LIGHTS</b>		
164	ELEC-3.8.29	Supply and transportation of ..... LED High Bay Luminaire with high power COB LED made of pressure diecast alluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's having efficacy >100 lumines/watt, System efficacy >95lm/W and junction temperature < 70°C, with Ingrees 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-Venture / Crompton/ Bajaj /Greenlites / Havells/Capart(Premium) /Halonix/Polycab/Keselec/HPL/Jaquar/Eveready 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 / Fortune Art / GM / Goldmedal / Syska / C&S/Cosmo/ Ib LED/ Vibrant/ Stanjo/Enrich/R Led/Orbit/Luker/Trinic/Ilite 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
	ELEC-3.8.31	Supply and transportation of ..... LED Linear Wall washer of Size ..... mm with high power LED's made of pressure diecast aluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, leads to 24 V DC output Voltage Drives with beam angle of 15/25/45/60 , P.F > 0.90, having efficacy >100 lumens/watt, System efficacy >95lm/W and junction temperature < 70°C, with Ingress protection IP66, IK05, with multi colour(Red or Yellow or Green or blue or White) etc., complete LUMINAIRE MAKE : Wipro / Philips/ GE / Crompton/ Bajaj / Greenlites/ Havells b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG/Seoul .		
	a	18 W , 1000 X 38 X 58 mm	1 No	9400
	b	24 W , 1000 X 38 X 58 mm	1 No	9900
	c	36 W , 1000 X 38 X 86 mm	1 No	11500
	d	48 W , 1000 X 60 X 100 mm	1 No	13900
		<b>RGB/RGBW LED Lighting</b>		
	ELEC-3.8.32	Supply and transportation of IP 66 RGBW LED Flood light Luminaries made of pressure die cast aluminium housing with powder coated, having protective toughened glass, Supply Input voltage 120 - 270 V AC, leads to 24 V DC output Voltage drives RGB LED's with light angle 60°, surge protection 6KV and junction temperature < 70°C, CRI>70,P.F>0.9,suitable for RGB DMX 512 controller etc., complete LUMINAIRE MAKE : Wipro / Philips/ Crompton/ Bajaj / Greenlites/ Havells b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG/Seoul .		
	a	90W	1 No	25500
	b	120W	1 No	29000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-3.8.33	Supply and transportation of ..... RGB LED Linear Wall washer of Size ..... mm with high power LED's made of pressure diecast aluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, leads to 24 V DC out put Voltage Drives with beam angle of 15/25/45/60 , P.F > 0.90, having efficacy >100 lumens/watt, System efficacy >95lm/W and junction temprature < 70°C, with Ingres protection IP66, IK05, suitable for RGB DMX 512 controller etc., a) LUMINAIRE MAKE : Wipro / Philips/ GE / Crompton/ Bajaj / Greenlites/ Havells b) LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / SEOUL.		
	a	18 W , 1000 X 38 X 58 mm	1 No	11200
	b	24 W , 1000 X 38 X 58 mm	1 No	11800
	c	36 W , 1000 X 38 X 58 mm	1 No	13200
	d	48 W , 1000 X 60 X 100 mm	1 No	16700
	ELEC-3.8.34	Supply, transportation and installation of stand alone USB -DMX controller to control a wide variety of different DMX systems from RGB/RGBW ,including 1024 DMX channels, Input power 5-5.5 V DC 0.6 A with programmability on PC ,MAC, tablet, smart phone with micro SD card etc complete Make: Sunlite Suit2/Artnet or its equivalent	1 No	78000
	ELEC-3.8.35	Supply, Transportation and Installation of DMX splitter/booster in the existing junction box with necessary connections. Makes: colourdreamer/ AURA/Greenlites	1 No	16000
	ELEC-3.8.36	Supply, Transportation and Installation of DMX-DC-5A, Decoder in the existing junction box with necessary connections. Makes: colourdreamer/ AURA/Greenlites	1 No	5200
	ELEC-3.8.37	Supply, Transportation and Installation of DC 24V input DMX Data Repeater in the existing junction box with necessary connections. Makes: colourdreamer/ AURA/Greenlites	1 No	3900
	ELEC-3.8.38	Supply, Transportation and Installation of 350W, non-water proof, DC 24V Constant Voltage Power Supply(Driver) Unit in the existing junction box with necessary connections. Makes: Mean Well or its equivalent	1 No	4900
	ELEC-3.8.39	Supply, Transportation and Installation of 350W, non-water proof, DC 12V, 1.25 A Constant Voltage Power Supply(Driver) Unit in the existing junction box with necessary connections. Makes: Mean Well or its equivalent	1 No	3200
		<b>LED DRIVERS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
166	ELEC-3.8.40	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-3.8.41	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
		<b>SECTION - 4</b>		
	4.1	<b>U.G. CABLES</b>		
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 /RR Kabel		
	a	4 sqmm X2 core	1 RM	95
	b	6 sqmm X2 core	1 RM	110
	c	10 sqmm X2 core	1 RM	130
	d	6 SqmmX 4 core	1 RM	130
	e	10SqmmX 4 core	1 RM	150
	f	16 SqmmX 4 core	1 RM	165
	g	25 SqmmX 3.5 core	1 RM	210
	h	35SqmmX 3.5 core	1 RM	250
	i	50 SqmmX 3.5 core	1 RM	325
	j	70 SqmmX 3.5 core	1 RM	420
	k	95 SqmmX 3.5 core	1 RM	545
	l	120 SqmmX 3.5 core	1 RM	660
	m	150 SqmmX 3.5 core	1 RM	760

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	n	185 SqmmX 3.5 core	1 RM	930
	o	240 SqmmX 3.5 core	1 RM	1155
	p	300SqmmX 3.5 core	1 RM	1400
	q	400SqmmX 3.5 core	1 RM	1785
169	ELEC - 4.1.2	Supply and transportation of following XLPE insulated, 1100V grade armoured aluminium 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	80
	b	6 sqmm X2 core	1 RM	90
	c	10 sqmm X2 core	1 RM	110
	d	6 SqmmX 4 core	1 RM	110
	e	10SqmmX 4 core	1 RM	126
	f	16 SqmmX 4 core	1 RM	141
	g	25 SqmmX 3.5 core	1 RM	180
	h	35SqmmX 3.5 core	1 RM	210
	i	50 SqmmX 3.5 core	1 RM	278
	j	70 SqmmX 3.5 core	1 RM	358
	k	95 SqmmX 3.5 core	1 RM	468
	l	120 SqmmX 3.5 core	1 RM	575
	m	150 SqmmX 3.5 core	1 RM	660
	n	185 SqmmX 3.5 core	1 RM	790
	o	240 SqmmX 3.5 core	1 RM	1000
	p	300SqmmX 3.5 core	1 RM	1210
	q	400SqmmX 3.5 core	1 RM	1570
		<b>33 KV HT XLPE CABLES</b>		
170	ELEC-4.1.3	Supply and Transportation of XLPE insulated IS:7098/II/85 H.T.cable for working voltage <b>33 K.V.</b> 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/RR Kabel/RPG		
	a	3C X 95 Sqmm	1 RM	1440

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	b	3C X 120 Sqmm	1 RM	1600
	c	3C X 150 Sqmm	1 RM	1750
	d	3C X 185 Sqmm	1 RM	1920
	e	3C X 240 Sqmm	1 RM	2200
	f	3C X 300 Sqmm	1 RM	2470
	g	3C X 400 Sqmm	1 RM	2840
		<b>11 KV HT XLPE CABLES</b>		
171	ELEC- 4.1.4	Supply and Transportation of XLPE insulated IS:7098/II/85 H.T.cable for working voltage <b>11 K.V</b> 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/RR Kabel/RPG		
	a	3C X 35 Sqmm	1 RM	590
	b	3C X 50 Sqmm	1 RM	670
	c	3C X 70 Sqmm	1 RM	790
	d	3C X 95 Sqmm	1 RM	935
	e	3C X 120 Sqmm	1 RM	1050
	f	3C X 150 Sqmm	1 RM	1210
	g	3C X 185 Sqmm	1 RM	1420
	h	3C X 240 Sqmm	1 RM	1630
	i	3C X 300 Sqmm	1 RM	1830
	j	3C X 400 Sqmm	1 RM	2300
		<b>Un Armoured and Armoured Copper Control Cables</b>		
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 /Paragon/RR Kabel/RPG		
	a	2C x 1.5 sq.mm	1 RM	90
	b	3C x 1.5 sq.mm	1 RM	95
	c	4C x 1.5 sq.mm	1 RM	110
	d	5C x 1.5 sq.mm	1 RM	115
	e	6C x 1.5 sq.mm	1 RM	130

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	f	8C x 1.5 sq.mm	1 RM	150
	g	10C x 1.5 sq.mm	1 RM	190
	h	12C x 1.5 sq.mm	1 RM	210
	i	14C x 1.5 sq.mm	1 RM	235
	j	19C x 1.5 sq.mm	1 RM	295
	k	2C x 2.5 sq.mm	1 RM	100
	l	3C x 2.5 sq.mm	1 RM	115
	m	4C x 2.5 sq.mm	1 RM	135
	n	5C x 2.5 sq.mm	1 RM	150
	o	6C x 2.5 sq.mm	1 RM	210
	p	8C x 2.5 sq.mm	1 RM	250
	q	10C x 2.5 sq.mm	1 RM	290
	r	12C x 2.5 sq.mm	1 RM	325
	s	14C x 2.5 sq.mm	1 RM	365
	t	19C x 2.5 sq.mm	1 RM	425
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/ Paragon/RR Kabel/RPG		
	a	2Cx1.5 sq.mm	1 RM	95
	b	2Cx2.5 sq.mm	1 RM	100
	c	2C x 4 sq.mm	1 RM	125
	d	2C x 6 sq.mm	1 RM	180
	e	2C x 10 sq.mm	1 RM	250
	f	2C x 16 sq.mm	1 RM	345
	g	3C x 4 sq.mm	1 RM	158
	h	3C x 6 sq.mm	1 RM	210
	i	3C x 10 sq.mm	1 RM	262
	j	3C x 16 sq.mm	1 RM	368
	k	4C x 4 sq.mm	1 RM	220
	l	4C x 6 sq.mm	1 RM	315
	m	4C x 10 sq.mm	1 RM	472

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	n	4C x 16 sq.mm	1 RM	785
	o	4C x 25 sq.mm	1 RM	1260
	p	4C x 35 sq.mm	1 RM	1680
	q	4C x 50 sq.mm	1 RM	2415
	r	4C x 70 sq.mm	1 RM	3675
		<b>CABLE TERMINATIONS AND ACCESSORIES</b>		
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		
		<b>INDOOR</b>		
	a	3 Core 95/120/150/185 sq mm	Set	12075
	b	3 core 240/300/400 sqmm	Set	16800
		<b>OUTDOOR</b>		
	c	3 Core 95/120/150/185 sq mm	Set	16800
	d	3 core 240/300/400 sqmm	Set	23625
		<b>STRAIGHT THROUGH</b>		
	e	3 Core 95/120/150/185 sq mm	Set	34125
	f	3 core 240/300/400 sqmm	Set	49875
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, prepration of cable ends, testing etc. as required of following sizes. Makes: Raychem /M seal/ Denson/ Multy/ Transeal- Hongshang		
		<b>INDOOR</b>		
	a	3 core 35/50 sqmm	Set	5250
	b	3 core 70/95 sqmm	Set	7875
	c	3 core 120/150/185 sqmm	Set	8925
	d	3 core 240/300 sqmm	Set	9345
	e	3 core 400/500 sqmm	Set	9870
		<b>OUTDOOR</b>		
	f	3 core 35/50 sqmm	Set	8925
	g	3 core 70/95 sqmm	Set	11025

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	h	3 core 120/150/185 sqmm	Set	12075
	i	3 core 240/300 sqmm	Set	13125
	j	3 core 400/500 sqmm	Set	14700
		<b>STRAIGHT THROUGH</b>		
	k	3 core 35/50 sqmm	Set	14175
	l	3 core 70/95 sqmm	Set	16800
	m	3 core 120/150/185 sqmm	Set	19425
	n	3 core 240/300 sqmm	Set	21000
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	1575
	b	3.5 core x 70/95/120 sq.mm	Set	2520
	c	3.5 core x 150/185/240 sq.mm	Set	3675
	d	3.5core x 300/400 sq.mm	Set	5775
	e	4 core x 6/10/16 sq.mm	Set	840
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 Aluminium 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 core x 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
178	ELEC-4.1.11	Supply and making <b>one end termination</b> 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
180	ELEC-4.1.12	Supply and making <b>end termination</b> 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	<b>4.2</b>	<b>CABLE TRAYS</b>		
182	ELEC-4.2.1	Supply,transporatation & installation of following sizes of Hot Dipped Galvanized Iron <b>perforated cable trays</b> 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	280
	b	150mm x 50mm x 1.6mm	1 RM	325
	c	300mm x 50mm x 1.6mm	1 RM	600
	d	450mm x 50mm x 2.0mm	1 RM	870
	e	600mm x 50mm x 2.0mm	1 RM	995
	f	300mm x 62.5mm x 2.0mm	1 RM	720
	g	450mm x 62.5mm x 2.0mm	1 RM	965
	h	600mm x 62.5mm x 2.0mm	1 RM	1195
	i	750mm x 62.5mm x 2.0mm	1 RM	1415
	j	900mm x 62.5mm x 2.0mm	1 RM	1680
	k	600mm x 75mm x 2.0mm	1 RM	1335
	l	750mm x 75mm x 2.0mm	1 RM	1470
	m	900mm x 75mm x 2.0mm	1 RM	1730
183	ELEC-4.2.2	Supply,transporatation & installation of following sizes of Hot Dipped Galvanized Iron <b>ladder type cable trays</b> 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	410
	b	300mm x 50mm x 2.0mm	1 RM	515

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	c	450mm x 50mm x 2.0mm	1 RM	680
	d	600mm x 75mm x 2.0mm	1 RM	840
	e	750mm x 75mm x 2.0mm	1 RM	890
	f	900mm x 75mm x 2.0mm	1 RM	945
	<b>4.3</b>	<b>DOUBLE WALLED CORRUGATED HDPE PIPE</b>		
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
		<b>SECTION - 5</b>		
	<b>5.1</b>	<b>FANS</b>		
	ELEC-5.1.1	Supply of 48" (1200mm) Sweep 5 star rated BLDC (Brush less Direct Current) Ceiling Fan with double ball bearings, input voltage 230V AC converted to 24 V DC, power input not more than 32W , air delivery 210/220 cubic meter/min with remote and without Regulator. Makes : Atomberg(Gorilla GV2 )/ Halonix(Plasma) /Havells(Efficiencia)	1 No	2995
	ELEC-5.1.2	Supply of 56" (1400mm) Sweep 5 star rated BLDC (Brush less Direct Current) Ceiling Fan with double ball bearings, input voltage 230V AC converted to 24 V DC, power input not more than 32W , air delivery not less than 240 cubic meter/min with remote and without Regulator. Makes : Atomberg(Gorilla GV2 )/ Halonix(Plasma) /Havells(Efficiencia)	1 No	3495
185	ELEC-5.1.3	Supply of 48" (1200mm) Sweep 5 star rated Ceiling Fan , with double ball bearings, air delivery more than 200 cubic meter/min but without Regulator. Makes : Crompton HS Plus / Havells ES Neo/Orient Energy Star/ Halonix(Zephyr)/Polycab(Synergy Star)	1 No	2000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
186	ELEC-5.1.4	Supply of 48" (1200mm) Sweep decorative Ceiling Fan, with double ball bearings with all accessories without Regulator. Makes: Crompton HS Decora / Bajaj Regal Star / Havells Spark deco / Orient summer crown /Halonix(Zephyr) /Polycab(India Glory)	1 No	2300
187	ELEC-5.1.5	Supply of 56" (1400mm) Sweep 5 star rated Ceiling Fan , with double ball bearings, but without Regulator. Makes : Crompton HS / Havells Velocity/Orient Summer King /Halonix(Zephyr)/Polycab(Synergy Star)	1 No	2400
188	ELEC-5.1.6	Supply of 16" (400mm) Wall mounted Fan. Makes: Crompton High Flow / Bajaj Elite / Havells Swing Premia gold / Orient Wall 45/Halonix Krypton	1 No	2300
189	ELEC-5.1.7	Supply of 16" (400mm) Pedestal Fan. Makes: Crompton PF High Flow LG / Bajaj Spectrum / Havells Swing / Orient Stand 32/Halonix Krypton/Polycab	1 No	2550
190	ELEC-5.1.8	Supply of 18" (450mm) Wall mounting / Pedestal Air Circulators. Makes: Crompton / Havells Turbo Force / Orient / Almounard/Halonix Gallion/Polycab.	1 No	5400
191	ELEC-5.1.9	Supply of 24" (600mm) Wall mounting / Pedestal Air Circulators. Makes: Crompton / Havells Turbo Force / Almounard/Halonix	1 No	6500
192	ELEC-5.1.10	Supply of 12" (300mm) Cabin fan. Makes: Crompton / Havells ciera / Orient AP12./Halonix	1 No	1700
193	ELEC-5.1.11	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/Halonix /Polycab	1 No	1450
194	ELEC-5.1.12	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/Halonix /Polycab	1 No	1290
195	ELEC-5.1.13	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
196	ELEC-5.1.14	Supply of 15" (375mm) ISI, 900 RPM Heavy duty exhaust fan with metallic blades with Mark. Makes: Crompton / Almounard / Havells Turbo Force/Halonix Krypton	1 No	3200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
197	ELEC-5.1.15	Supply of 18" (450mm) ISI, 900 RPM Heavy duty exhaust fan with metallic blades with Mark. Makes: Crompton / Almounard / Havells Turbo Force/Halonix Krypton	1 No	4100
	<b>5.2</b>	<b>WATER HEATERS (Conventional &amp; Solar)</b>		
198	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 Solarium BLX / Jaquar Elena / Venus Lyra / Racold Eterno Swift / AO Smith HSE SDS /Havells Puro Turbo/Warmex		
	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..... <b>Flate plate Collector</b> 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
		<b>HEAT PUMP</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
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
	<b>5.3</b>	<b>ACCESSORIES FOR WATER HEATERS</b>		
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 2019-20 (Rs.)
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
	<b>5.4</b>	<b>PUMPSETS</b>		
		<b>SINGLE PHASE SUBMERSIBLE MOTOR PUMP SETS</b>		
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
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/UNItex/KSP/Anco/Sabar/Fitwell		
	a	0.75HP 8 Stage	1 No	12700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
		<b>THREE PHASE SUBMERSIBLE MOTOR PUMP SETS.</b>		
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/UNItex/KSP/ Anco/ Sabar/Fitwell		
	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
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	p	25HP 20-25 Stage	1 No	79000
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/Anco/ Sabar/Fitwell/Polycab		
	a	3.00HP 5-10 Stage	1 No	27000
	b	5.00HP, 5-10Stage	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
		<b>SINGLE PHASE OPEN WELL SUBMERSIBLE MOTOR PUMP SETS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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		
	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: Pluga / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Duke/LDK/Ellen/Suguna/UNIttek/KSP/Anco/ Sabar/Fitwell		
	a	1.00HP	1 No	10500
	b	1.50HP	1 No	12000
	c	3.00HP	1 No	16350
		<b>THREE PHASE OPEN WELL SUBMERSIBLE PUMP SETS</b>		
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: Pluga / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Duke/LDK/Ellen/Suguna/UNIttek/KSP /Polycab/ Anco/ Sabar/Fitwell		
	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
		<b>SINGLE PHASE MONO BLOCK MOTOR PUMP SETS.</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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: Pluga / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Ellen/LDK/Suguna/UNltek/Polycab/Anco/ Sabar/Fitwell		
	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: Pluga / U-Neel / Sterling / Falcon / Kumar / Unnati zen/Ellen/LDK/Suguna/UNltek/Polycab/Anco/ Sabar/Fitwell		
	a	2.00HP(40x40mm)	1 No	13500
	b	3.0HP (50x50mm)	1 No	18300
	c	5.00HP(80x80mm)	1 No	22200
		<b>CONTROL PANEL BOARD FOR MOTOR PUMPSETS</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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.		
		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	above 7.5 HP to 12.5 HP with Star- Delta Starter of Make C&S/Crompton / L&T / Siemens/BCH.	1 No	14000
232	c	From 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 enclouser 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
		<b>UPVC PIPES AND FITTINGS</b>		
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
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	<b>5.5</b>	<b>AIR CONDITIONERS</b>		
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.		
		<b>1.5TR Split ACs</b>		
	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-GK 18VA / O General ASGA18FTTC/Toshiba RAS18S3KPS	1 No	44500
	b	1.5 TR 3 Star capable of delivering 18000 BTU / hr and above with operating on refrigerant R-32 / R-410A Makes: Blue Star 3HW18VCTU / Daikin FTE-M or N Sereis / Hitachi / Voltas / Carrier Superia.	1 No	41500
		<b>2.0 TR Split ACs</b>		
	c	2.0 TR 3 Star capable of delivering 24000 BTU/ hr and above with operating on refrigerant R-32 / R-410A Makes: Mitsubishi MS-GK24VA / O General ASG24FUTC/ Toshiba RAS24S3KPS	1 No	51500
	d	2.0 TR 3 Star capable of delivering 24000 BTU/ hr and above with operating on refrigerant R-32 / R-410A Makes: / Hitachi / Blue Star 3HW24LBTU / Daikin / Voltas / Carrier Superia.	1 No	45500
		<b>Inverter Split AC Unts (Cooling Only)</b>		
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 oxidigation.		
		<b>0.8/ 1.0TR Split ACs</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	a	0.8 TR 5 Star capable of delivering 9600 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Mitsubishi MSY-GN01VF/ O General ASGG09JLCA / Toshiba		34500
	b	0.8 TR 5 Star capable of delivering 9600 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Blue star 5CNHW09PAFU/Carrier Superia/Hitachi/Daikin		29500
	c	1.0 TR 5 Star capable of delivering 12000 BTU/hr and above with operating on refrigerant R-32/ R-410A Makes: Mitsubishi MSY-GN13VF/ O General ASGG12CGTA/ Toshiba RAS13N3KCV		38500
	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 5HW12PAFU / Carrier Supiria / Hitachi / Daikin		33500
		<b>1.5, 1.8 &amp; 2.0TR Split ACs</b>		
	e	1.5 TR 5 star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A, COP not less than 4.5 Makes: Mitsubishi MS-GN18VF / O General ASGA18JCC/Toshiba RAS18N3KCV	1 No	48500
	f	1.5 TR 5 star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32/ R-410A,COP not less than 4.5 Makes: / Blue Star PAFU-DAFU series / Daikin FTKC50NVM / Hitachi	1 No	46500
	g	1.8/1.9TR 5star capable of delivering 24000 BTU/hr and above with operating on refrigerant R-410A / R-32 Makes: Mitsubishi MSY-GN22UF / O General /Toshiba RAS 22N 3KCV	1 No	57000
	h	1.8/1.9 TR 5 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	54000
	i	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	66500
	j	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	59000
		<b>INVERTER CASSETTE TYPE AC UNITS</b>		
246	ELEC-5.5.35	Supply of ..... <b>inverter Cassette type</b> 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.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	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 AUGA2SFRTA / Toshiba RAV-SE801UP	1 No	78000
	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 Star3HNCS24YAF/ 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 /Toshiba	1 No	138000
	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	135500
	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	142000
	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
		<b>TOWER MODEL (Vertical) TYPE AC UNITS</b>		
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 with 3.5 mtr of Copper piping,insulation kit and 4 mtr of 4 core copper flexible card with refrigerant 410A/R32, 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 <b>with cordless remote control</b>		
	a	3.0/ 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	91000
	b	3.8 /4.0TR Three Phase capable of delivering 45600BTU/hr and above with operating on refrigerant R-32/R-410 Makes: Carrier /Daikin / Blue Star	1 No	96500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	c	4.5/ 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	105000
	<b>5.6</b>	<b>HVAC SYSTEMS(VRV/VRF)</b>		
248	ELEC-5.6.1	<p>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.</p> <p>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 &amp; its controller for following capacities. The VRV system shall be cooling only system.</p> <p>Makes: Mitsubishi /DAIKIN/Toshiba/O General</p>		
		Type of Compressor : Hermetic sealed Inverter <b>Scroll/Twin Rotary</b>		
		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
	ELEC-5.6.2	<p>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.</p> <p>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 &amp; its controller for following capacities. The VRV system shall be cooling only system.</p> <p>Makes: LG/Voltas/Blue star/Hitachi/Carrier/Samsung</p>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		Type of Compressor : Hermetic sealed Inverter <b>Scroll/Twin Rotary</b>		
		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	133500
	b	8 HP	1 No	145000
	c	10 HP	1 No	180300
	d	12 HP	1 No	202400
	e	14 HP	1 No	229000
	f	16 HP	1 No	261000
	g	18 HP	1 No	287000
	h	20 HP	1 No	315000
	ELEC-5.6.3	Supply and Installation of Ref Nets for Double ODU connections	1 No	4800
250	ELEC-5.6.4	Supply and Installation of Ref Nets for Triple ODU connections	1 No	9200
251	ELEC-5.6.5	Supply and Installation of Multi Connection Joint / Ref Nets for IDUs	1 No	4200
252	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/ O General		
		Type Of Units :Hi Wall type units		
	a	1.0 TR	1 No	27500
	b	1.6 TR	1 No	30000
	c	2.0 TR	1 No	31000
	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: LG/Voltas/Blue star/Hitachi/Carrier/Samsung		
		Type Of Units :Hi Wall type units	1 No	25300

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	a	1.0 TR	1 No	27600
	b	1.6 TR	1 No	28500
	c	2.0 TR	1 No	
253	ELEC-5.6.8	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 /O General		
		Type Of Units :Roundflow/4 way 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
	ELEC-5.6.9	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: LG/Voltas/Blue star/Hitachi/Carrier/Samsung		
		Type Of Units :Roundflow/4 way Cassette units		
	a	1.0 TR	1 No	33600
	b	1.5/1.6 TR	1 No	37700
	c	2.0 TR	1 No	38600
	d	2.6 TR	1 No	42300
	e	3.2 TR	1 No	43200
	f	4.0 TR	1 No	44000
	g	4.5 TR	1 No	46200
254	ELEC-5.6.10	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/ O General		
		Type Of Units :High Static Duct Units		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	ELEC-5.6.11	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: LG/Voltas/Blue star/Hitachi/Carrier/Samsung		
		Type Of Units :High Static Duct Units		
	a	3.2 TR	1 No	46000
	b	4.0 TR	1 No	48000
	c	4.5 TR	1 No	57500
	d	5.5 TR	1 No	77000
	e	6.3 TR	1 No	81000
	f	8.0 TR	1 No	86000
255	ELEC-5.6.12	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-5.6.13	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/ O General		
		Type of Units : Ductable TFA Units		
	a	4TR	1 No	82650
	b	6TR	1 No	99600
	c	8TR	1 No	105000
	ELEC-5.6.14	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: LG/Voltas/Blue star/Hitachi/Carrier/Samsung		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		Type of Units : Ductable TFA Units		
	a	4TR	1 No	76000
	b	6TR	1 No	91000
	c	8TR	1 No	96500
		<b>HVAC-LOW SIDE WORKS</b>		
257	ELEC-5.6.15	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-5.6.16	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-5.6.17	Lifting Shifting, Positioning ,Installation Testing and commissioning of the following indoor units with including all required accessoires etc complete.,		
		Type Of Units :Round Flow /4 way 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-5.6.18	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-5.6.19	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
		<b>Refrigerant Piping</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
262	ELEC-5.6.20	Supply, installation and testing of Refrigerant Piping consisting of Copper tubes of wall thickness 20G/22G inclusive of <b>Suction Gas Piping &amp; Fittings, Liquid Line Piping &amp; Fittings</b> , 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		
		The insulation shall be closed cell/cross linked elastomeric Nitrile rubber of thickness 13/19 mm. <b>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.</b>		
		Testing of refrigerant piping and procedure shall be done as per Manufacturer's recommendations		
	a	34.9 mm dia	Rmt	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-5.6.21	Supply, installation and testing of UPVC Drain Piping with 6mm Nitrile Rubber class "O" Insulation <b>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.</b>		
	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-5.6.22	Supply and transportation of R 410A Gas for the system.	kg	1050
265	ELEC-5.6.23	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
266	ELEC-5.6.24	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-5.6.25	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
	b	22 G	sqm	925
	c	20 G	sqm	1100
	d	18 G	sqm	1200
		<b>Thermal Insulation</b>		
268	ELEC-5.6.26	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
		<b>Accoustic Insulation</b>		
269	ELEC-5.6.27	Supply & Fixing of Duct Accoustic Insulation applied inside of the duct work with All. backed Open cell nitrile duly fixed with adhesive and tapes		
	a	10/15 mm Thick	sqm	900
270	ELEC-5.6.28	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-5.6.29	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-5.6.30	Supply , Erection and Testing of GI Opposed blade Volume control dampers made out of 18G frame and 20G blades	sqm	5400
273	ELEC-5.6.31	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-5.6.32	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-5.6.33	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-5.6.34	Supply and Installation of GI backdraft dampers as per UL 555 Standard,	sqm	5400

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
277	ELEC-5.6.35	Supply, installation and testing of Canvas connection for the Treated Fresh Air units to the duct	each	2200
	<b>5.7</b>	<b>EVAPORATIVE AIR COOLING SYSTEM</b>		
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
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 13mm thick Nitrile insulation for out door unit.	1 sft	55
281	ELEC-5.7.4	Supply and fixing of 50mm thick glasswool of 24 kg density with alluminium 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
	<b>5.8</b>	<b>STABILIZERS</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	e	5.0 KVA	1 No	3100
	<b>5.9</b>	<b>REPAIRING OF FANS, COOLERS, PUMPS, MOTORS, FRIDGES AND AIRCONDITIONERS</b>		
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 irrespective to the size of fan including removing,refixing of fan from site and testing etc. as required	1 No	150
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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, 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.	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
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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: DAIKIN/LG/Carrier/Kirloskar/Techam-shah		
	a	1.0/1.5 TR	1 No	9500
	b	2 TR	1 No	10450
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	3565
	b	1.5 TR A.C.	1 No	4025
	c	2.0 TR A.C.	1 No	4485
	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 .....		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		<b>Starting capacitor</b>		
	a	20-60 micro farad	1 No	200
	b	80-150 micro farad	1 No	400
		<b>Running capacitor</b>	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 <b>liquid</b> 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	<b>1/2" x 1/4"</b>	1 Mtr	810
	b	<b>5/8" x 1/4"</b>	1 Mtr	890
	c	<b>3/4" x 3/8"</b>	1 Mtr	975
	d	<b>7/8" x 1/2"</b>	1 Mtr	1100
	e	<b>1 1/8" x 5/8"</b>	1 Mtr	1350
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.	1 No	1600
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	4000
318	ELEC-5.9.33	Installation of Tower type Split Air Conditioners.	1 No	3000
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
		<b>SECTION 6</b>		
	6.1	<b>SWAGED / OCTAGONAL POLES AND GARDEN POSTS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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	67
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	61
322	ELEC-6.1.3	Supply of different sizes of M. S. Pipe brackets (Rate per K.G)	1 Kg	61
		<b>OCTOGONAL POLES</b>		
323	ELEC-6.1.4	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 Hinged 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/Laasma /Transrail/Utkarsh/ Skipper	1 No	11760
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 Hinged 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/Laasma /Transrail/Utkarsh/ Skipper	1 No	17000
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 Hinged 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/Laasma /Transrail/Utkarsh/ Skipper	1 No	18690

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
326	ELEC-6.1.7	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 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/Laasma /Transrail/Utkarsh/ Skipper	1 No	27000
		<b>DECORATIVE DRAGON TYPE BRACKET WITH POLE</b>		
327	ELEC-6.1.8	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 suitableboards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180KMPH for <b>9 Mtrs Mounting height</b> 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 of1.5M <b>Dragon type</b> decorative ..... Makes: Bajaj / Valmont/Laasma /Transrail/Utkarsh/ Skipper		
	a	galvanised double arm with PU Painted bracket.	1 No	26600
	b	galvanised Single arm with PU Painted bracket.	1 No	22800
	c	Double arm GalvanizeFinished bracket	1 No	22500
	d	Single arm GalvanizeFinished bracket	1 No	20400
328	ELEC-6.1.9	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 and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for <b>9 Mtrs Mounting height</b> 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 <b>Dragon type</b> decorative Makes : Bajaj / Valmont /Transrail/Utkarsh/ Skipper/ /United	1 No	DELETED

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
329	ELEC-6.1.10	Fabrication, Transportation and supply of hot-dip ..... <b>PU Paint finish Curved Octogonal Pole</b> 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 <b>9 Mtrs Mounting height</b> 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 <b>Single arm</b> bracket. Makes: Bajaj / Valmont/Laasma /Transrail/Utkarsh/ Skipper		
	a	Galvanized	1 No	22300
	b	Galvanized PU paint finished	1 No	30200
		<b>POLE BRACKETS</b>		
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	1300
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	1720
332	ELEC-6.1.13	Fabrication, Transportation and supply of 1 Mtr length Double Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe. Makes: Bajaj / Valmont/Laasma /Transrail/Utkarsh/ Skipper	1 No	1610
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	2900
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	4800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	9100
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	5300
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	4100
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	4300
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	3600
		<b>HIGH MAST POLES</b>		
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	105000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
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/Laasma /Transrail/Utkarsh/ Skipper	1 No	138000
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 460mm 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 670mm 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 M30 x 750 mm foundation bolts of required quantity with GLS type aviation twin lamp. Makes: Bajaj / Valmont/Laasma /Transrail/Utkarsh/ Skipper	1 No	178500
		<b>FEEDER PILLAR BOXES</b>		
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	18300
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	18900

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		<b>ERRECTION- HIGH MAST POLES</b>		
345	ELEC-6.1.26	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	28400
346	ELEC-6.1.27	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	35500
347	ELEC-6.1.28	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	45600
348	ELEC-6.1.29	Supply of ..... Sizes thermo plastic cable junction boxes with IP66/67 weather proof, for outdoor installation with konckouts for cable entry including terminals etc., complete (sizes in mm) Make : Hensel		
	a	155 X 210 X 92	1 No	1650
	b	205 X 255 X 112	1 No	2400
	c	225 X 295 X 122	1 No	8450
	d	255 X 600 X 170	1 No	9300
		<b>FOUNDATION AND ERRECTION CHARGES OF POLES</b>		
349	ELEC-6.1.30	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	4200

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
350	ELEC-6.1.31	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	4900
351	ELEC-6.1.32	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	6600
352	ELEC-6.1.33	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	8100
		<b>GRP POLES</b>		
353	ELEC-6.1.34	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 / Valmont/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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
	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-6.1.35	Supply and transportation of base bracket suitable for glass reinforced polymer (GRP) composite type pole including labour charges etc., complete. Makes: Bajaj / Kemrock / Valmont/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
	<b>6.2</b>	<b>LT PANEL AND ACCESSORIES</b>		
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	4250
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: Conserve/Elmeasure/Meco/HPL/L&T/socomec		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	a	Analog type ( 96 mm x 96 mm )	1 No	850
	b	Digital type	1 No	1900
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/ Meco/HPL/L&T/Schneider/AE/Socomec		
		<b>Analog type ( 96 mm x 96 mm )</b>		
	a	Below 500 A	1 No	850
	b	Above 500A	1 No	850
		<b>Digital type</b>		
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
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		
		<b>one pole</b>		
	a	16 A	1 No	350
	b	32 A	1 No	450
	c	63 A	1 No	650
		<b>Two pole</b>		
	d	16 A	1 No	400
	e	32 A	1 No	530
	f	63 A	1 No	875

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		<b>Three pole</b>		
	g	16 A	1 No	500
	h	32 A	1 No	700
	i	63 A	1 No	1250
		<b>Four pole</b>		
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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		
	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
	<b>6.3</b>	<b>SUB STATION EQUIPMENT AND TRANSFORMERS</b>		
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.		
		Supply, Transportation, Installation and Commissioning of 11 KV, 630A, 25 KA Outdoor type Load Break Switch as detailed below with suitable CC foundation and 2 Nos GI pipe earthing with brick masonry chambers etc complete for finished item of work. a) Load break switch: 11KV,630A, 25 KA with fuse trip, earth switch, manually operated spring charged mechanism with 2 no + 2 NC. b) HT HRC fuse upto 63A - 3 nos. c) Bus bar connection. d) Indication lamps. e) Manual trip Push button. <b>Make:ABB/ Megawin/Amara Raja/L&amp;T</b>		120000
		<b>33 KV HT Panel (drawout type)</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
374	ELEC-6.3.2	Supply, Installation, Testing and Commissioning of indoor type floor mounted metal clad, <b>33 KV 800A VCB</b> 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/Amara Raja/Megawin	1No	2655000
		<b><u>INCOMER 1 No. each comprising the following</u></b>		
		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		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		Set of MCBs for Main AC/DC		
		Set of Indication lamps LED types		
		TNC Switch, L-R Switch, Pushbuttons for ON-OFF		
		<b><u>OUTGOING 2 Nos. each comprising the following</u></b>		
		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		
		<b>11KV HT Panel (drawout type)</b>		
375	ELEC-6.3.3	Supply, Installation, Testing and Commissioning of indoor type floor mounted metal clad, <b>11 KV 800A VCB</b> 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.)	1No	1345000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		Makes:ABB/Schneider/Seimens/Kirloskar/Amara Raja/Megawin		
		<b><u>INCOMER 1 No. each comprising the following</u></b>		
		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		
		<b><u>OUTGOING 2 Nos. comprising the following</u></b>		
		1 No. 800 Amp. VCB. 26.3KA		
		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		
		<b>Oil Immersed TRANSFORMERS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
376	ELEC-6.3.4	Supply and Transportation of copper wound Transformers <b>33/0.433 KV</b> , 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 <b>energy efficiency level - 2</b> 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) etc., complete and as per the following continuous rating Make:ABB/ALSTOM/SEIMENS/Kirloskar/Voltamp/ Esennar/KPEL		
	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 ISI marked copper wound Transformers <b>11/0.433 KV</b> , 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 <b>Energy Efficiency Level - 2</b> 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) +10% to -10%, etc., complete and as per the following continuous rating Make:Schneider/Kirloskar/Voltamp/ Esennar/ Toshiba/ KPEL/ Powertech		
	a	100 KVA	1 No	325500
	b	160 KVA	1 No	550000
	c	250 KVA	1 No	650000
	d	315 KVA	1 No	800000
	e	500 KVA	1 No	1050000
	f	630 KVA	1 No	1130000
	g	1000 KVA	1 No	1480000
		<b>Dry Type transformers</b>		
378	ELEC-6.3.6	Supply ,Transportation of cast Resin (Dry Type) indoor type copper double wound <b>33KV/0.433 KV</b> , Three Phase 50 HzTransformers desinged 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 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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 <b>11KV/0.433 KV</b> , Three Phase 50 HzTransformers desinged 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 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	651000
	b	315 KVA	1 No	756000
	c	500 KVA	1 No	918000
	d	630 KVA	1 No	1102500
	e	750 KVA	1 No	1260000
	f	1000 KVA	1 No	
	<b>6.4</b>	<b>MAINTENANCE AND REPAIRS OF TRANSFORMERS</b>		
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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	Filteration 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
	<b>6.5</b>	<b>OVERHEAD LINES&amp; LINE MATERIALS</b>		
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
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 rigidly 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 2019-20 (Rs.)
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
	ELEC-6.5.20	Providing transformer plinth 1.2 x 1.2 x 1.5 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft at the bottom and top and 225mm thick wall constructed in stone masonry and remaking hallow portion shall be filled with stone chips duly plastered 20mm thick outsides including watering etc., complete.	1 No	10000
	ELEC-6.5.21	Providing CTPT plinth 600mm x 600mm x 2.1 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft at the bottom and top duly plastered 20mm thick outsides including watering etc., complete.	1 No	6000
	<b>6.6</b>	<b>LIGHTENING PROTECTIVE SYSTEM</b>		
		<b>Advanced LPS</b>		
	ELEC-6.6.1 a	Supply of ESE Air Terminal of external wide area of protection system based on proactive <b>Early Steamer Emission (ESE) Technology manufactured in accordance with NFC 17-102:2011</b> , is made of high-quality, non corrosive and weather resistant XL-304 Stainless Steel Having triggering advance $\square t = 30\mu s$ , Protection Radius ranging from <b>48 Meters in Level-I to 71 Meters in Level-IV</b> when installed on a 5 Meters Mast. ESE terminal is capable to withstand Current Impulses of 40kA (5 Shots of 8/20 $\mu s$ wave shape) and having capturing rod dia of 25mm. Make : THUNDERGUARD(EARTHPLUS)/ KALRE/ NIMBUS / FOREND	1 No	95000
	ELEC-6.6.1 b	Supply of ESE Air Terminal of external wide area of protection system based on proactive <b>Early Steamer Emission (ESE) Technology manufactured in accordance with NFC 17-102:2011</b> , is made of high-quality, non corrosive and weather resistant XL-304 Stainless Steel Having triggering advance $\square t = 50\mu s$ , Protection Radius ranging from <b>68 Meters in Level-I to 95 Meters in Level-IV</b> when installed on a 5 Meters Mast. ESE terminal is capable to withstand Current Impulses of 40kA (5 Shots of 8/20 $\mu s$ wave shape) and having capturing rod dia of 25mm. Make : THUNDERGUARD(EARTHPLUS)/ KALRE/ NIMBUS / FOREND	1 No	100000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
413	ELEC-6.6.1 c	Supply of ESE Air Terminal of external wide area of protection system based on proactive <b>Early Steamer Emission (ESE) Technology manufactured in accordance with NFC 17-102:2011</b> , is made of high-quality, non corrosive and weather resistant XL-304 Stainless Steel Having triggering advance $t = 60\mu s$ , Protection Radius ranging from <b>79 Meters in Level-I to 107 Meters in Level-IV</b> when installed on a 5 Meters Mast. ESE terminal is capable to withstand Current Impulses of 40kA (5 Shots of 8/20 $\mu s$ wave shape) and having capturing rod dia of 25mm. Make : THUNDERGUARD(EARTHPLUS)/ KALRE/ NIMBUS / FOREND	1 No	114000
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	29000
415	ELEC-6.6.3	Supply of 6 Digit Electronic/Mechanical counter Make: EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND	1 No	15000
416	ELEC-6.6.4	Supply of G.I mast of 5 Meters length, 50 mm Dia, with FRP Collar (Insulating Bush) Base Plate & Complete Fitting Accessories with Supporting Guy Wire (Stay Wires) and all fitting accessories	1 Set	6000
418	ELEC-6.6.5	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-6.6.6	Supply of Bentonite Moisture Retaining Powder 30 Kg Bag	1 No	170
420	ELEC-6.6.7	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	1500
		<b>CONVENTIONAL LPS AS PER IS/IEC 62305</b>		
		<b>Air Terminal</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
421	ELEC-6.6.8	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	90
422	ELEC-6.6.9	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	50
423	ELEC-6.6.10	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	130
424	ELEC-6.6.11	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	1650
425	ELEC-6.6.12	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	132
426	ELEC-6.6.13	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	395
		<b>DOWN CONDUCTOR</b>		
427	ELEC-6.6.14	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	90
428	ELEC-6.6.15	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	50

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
429	ELEC-6.6.16	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	310
430	ELEC-6.6.17	Supply, installation, testing and commissioning of Lightning 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	16500
	<b>6.7</b>	<b>EARTHING</b>		
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 and CC finished 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 and CC finished 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 2019-20 (Rs.)
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 independent earthing for Important equipment with 100mm dia Heavy gauge C.I ( Cast iron ) pipe with Flange 2.5m long enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with salt and charcoal from the bottom of the pipe giving earth connection from electrode through G.I strip of 40 x 6mm x 200mm length with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1 No	7500
		<b>EARTH CONDUCTORS</b>		
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(0.075Kgs/1Mtr)	1 Mtr	44
	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	n	50 mm x 6mm GI Flat(2.5 Kgs ?mtr)	1 Mtr	160
		<b>SECTION 7</b>		
	<b>7.0</b>	<b>LOCAL AREA NETWORK</b>		
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, STP/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		
	a	6 UTP cable	RM	32
	b	6 STP cable	RM	44
438	ELEC-7.1.2	Supply installation testing and commisioning of 2nos of Cat6 Toolless 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 Toolless 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 Pigtailes 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 Pigtailes LSZH 1mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	370

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
443	ELEC-7.1.7	Supply installation testing and commissioning of Single Mode LC Pigtailed LSZH 2mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	280
444	ELEC-7.1.8	Supply installation testing and commissioning of Single Mode SC Pigtailed LSZH 2mtr for fibre core connectivity .Makes: Systimax /Legrand/Molex/Krone /AMP	each	390
445	ELEC-7.1.9	Supply installation testing and commissioning of <b>Indoor</b> 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 <b>Outdoor</b> , 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 <b>indoor</b> 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	b	12 Ports	1 No	7200
	c	24 Ports	1 No	13625
	d	36 Ports	1 No	15400
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 rearSteel Door and hinged front section with glass doors, swing handles ,lock on both doors, Top and BottomCable entries with gland plates ,Castor with brakes , 7no 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 etcalong with earth continuity kit, Mcb, indicator, mouldedpower supply cable, Blank panels of 1u / 2 u , slidingshelves .Frame of communication rack should be madeof heavy grade Aluminum profile PS grey painted andpanels should be made from CRCA steel 18 swg RSBeige painted . Make: APW/HCL/Valrack/Netrack		
	a	22 U (44 mm ) Floor Standing Rack	1 No	20500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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
		<b>MANAGEBLE NET WORK SWITCHES</b>		
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 <b>Layer2</b> , Catalyst 2960 Plus <b>24 port</b> , 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 <b>Layer2</b> , Catalyst 2960 Plus <b>48 port</b> , 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 <b>Layer2</b> , Catalyst 2960 Plus <b>24 port, POE</b> 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 <b>Layer2</b> , Catalyst 2960 Plus <b>48 port, POE</b> 10/100+2T/SFP LAN base Manageble Net work switch. Make: CISCO-C2960+48PST-L or equilent in JUNIPER/EXTREME	1 No	180000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
460	ELEC-7.1.25	Supply , Installation, Testing and Comissioning of <b>Layer2</b> , Catalyst 2960 Plus <b>24 port, GigE</b> 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 <b>Layer2</b> , Catalyst 2960 Plus <b>48 port, GigE</b> 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 <b>WIFI</b> Acess point with mounting accessories etc.,complete . Make : Cisco Aironet 1815i or equivalent in Ruckus/Aruba	1 No	22500
	<b>7.2</b>	<b>RACEWAYS AND JUNCTION BOXES</b>		
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	445
	b	150mm x 38mm	1 Mtr	595
	c	300mm x 38mm	1 Mtr	1010
	d	100mm x 25mm	1 Mtr	420
	e	150mm x 25mm	1 Mtr	550
	f	300mm x 25mm	1 Mtr	990
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	335
	b	222mm x 52mm	1 No	425
	c	372mm x 52mm	1 No	790
	<b>7.3</b>	<b>COMPUTERS,PRINTERS AND SCANNERS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	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) 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, 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	65700

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
467	ELEC-7.3.4	Supply, Transportation and installation of All-in-One (Print, Copy, Scan) with duplex, auto document feeder makes: Canon imageCLASS MF244dw /HP/Brother DCPB7535DW or its equivalent features: -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, Fullsize -COPY Copy Speed (A4) 27ppm Maximum Number of Copies Up to 999 copies Scan Type Colour Contact Image Sensor Scan Resolution Optical Up to 600 x 600dpi Pull Scan Yes, USB and Network	1 No	20500
468	ELEC-7.3.5	Supply, Transportation and installation of Document Scanner Make : Brother ADS-2400N document scanner (OR) It's Equivalent in Canon/HP 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
		<b>EPABX SYSTEM</b>		
	<b>7.4</b>	<b>SMALL SYSTEM</b>		
	ELEC-7.4.1	Supply, Installation, testing and Commissioning of IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and Ios) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 32 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Makes: NEC/ Alcatel /Avaya/Siemens</b>	1 No	86500
	ELEC-7.4.2	Supply, Installation, testing and Commissioning of IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and Ios) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Makes: NEC/ Alcatel /Avaya/Siemens</b>	1 No	95000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-7.4.3	<p>Supply, Installation, testing and Commissioning of IP Based digital Telephone (EPABX) system -----complied with following specifications:</p> <ul style="list-style-type: none"> <li>&gt; IP @ Core, PCM/TDM, Non blocking,</li> <li>&gt; Must Support PRI, E1, Analog Junctions</li> <li>&gt; Must Support PC Console,</li> <li>&gt; Must support Mobile SIP (Android and Ios)</li> <li>&gt; Must support Voice Mail</li> <li>&gt; Must support Card based GSM</li> <li>&gt; Inbuilt 8 Channel Auto Attendant</li> <li>&gt; Inbuilt Call Details Software with search engine software</li> <li>&gt; 4 Analog Trunks</li> <li>&gt; 1 ISDN PRI Module</li> <li>&gt; 6 Digital Extensions</li> <li>&gt; 48 Analog Extensions</li> <li>&gt; 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)</li> <li>&gt; Expandable to 64 Analog Extensions or more</li> </ul> <p><b>Makes: NEC/ Alcatel /Avaya/Seimens</b></p>	1 No	105800
	ELEC-7.4.4	<p>Supply, Installation, testing and Commissioning of IP Based digital Telephone (EPABX) system -----complied with following specifications:</p> <ul style="list-style-type: none"> <li>&gt; IP @ Core, PCM/TDM, Non blocking,</li> <li>&gt; Must Support PRI, E1, Analog Junctions</li> <li>&gt; Must Support PC Console,</li> <li>&gt; Must support Mobile SIP (Android and Ios)</li> <li>&gt; Must support Voice Mail</li> <li>&gt; Must support Card based GSM</li> <li>&gt; Inbuilt 8 Channel Auto Attendant</li> <li>&gt; Inbuilt Call Details Software with search engine software</li> <li>&gt; 4 Analog Trunks</li> <li>&gt; 6 Digital Extensions</li> <li>&gt; 64 Analog Extensions</li> <li>&gt; 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)</li> <li>&gt; Expandable to 64 Analog Extensions or more</li> </ul> <p><b>Makes: NEC/ Alcatel /Avaya/Siemens</b></p>	1 No	109000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-7.4.5	Supply, Installation, testing and Commissioning of IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and Ios) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Makes: NEC/ Alcatel /Avaya/Siemens</b>	1 No	119000
	ELEC-7.4.6	Supply and installation of Analog Extension Card (with Caller ID) 8 extensions.	1 No	14500
	ELEC-7.4.7	Supply and installation of Analog Extension Card (with Caller ID) 16 extensions.	1 No	19000
	ELEC-7.4.8	Supply and installation of Analog Trunk Card (with Caller ID) 4 trunks.	1 No	16100
	ELEC-7.4.9	Supply and installation of Analog Trunk Card (with Caller ID) 8 trunks.	1 No	20000
	ELEC-7.4.10	Supply and installation of Digital Extension Card for 8 digital extensions:	1 No	18700
	ELEC-7.4.11	Supply and installation of Digital Extension Card for 16 digital extensions:	1 No	31500
	ELEC-7.4.12	Supply and installation of E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1 No	47250
	<b>7.5</b>	<b>LARGE SYSTEM</b>	1 No	

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-7.5.1	<p>Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications:</p> <ul style="list-style-type: none"> <li>&gt; IP @ Core, PCM/TDM switching, Non blocking,</li> <li>&gt; Must Support PRI, E1, Analog Junctions</li> <li>&gt; Must Support PC Console,</li> <li>&gt; Must support Mobile SIP (Android and IOs)</li> <li>&gt; Must support Voice Mail</li> <li>&gt; Must support Card based GSM</li> <li>&gt; Inbuilt Call Details Software with search engine software</li> <li>&gt; 8 Analog Trunks</li> <li>&gt; 8 Digital Extensions</li> <li>&gt; 96 Analog Extensions</li> <li>&gt; 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)</li> <li>&gt; Expandable to 220 Ports wired or more at extra cost</li> </ul> <p><b>Makes: NEC/ Alcatel /Avaya/Siemens</b></p>	1 No	238600
	ELEC-7.5.2	<p>Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications:</p> <ul style="list-style-type: none"> <li>&gt; IP @ Core, PCM/TDM switching, Non blocking,</li> <li>&gt; Must Support PRI, E1, Analog Junctions</li> <li>&gt; Must Support PC Console,</li> <li>&gt; Must support Mobile SIP (Android and IOs)</li> <li>&gt; Must support Voice Mail</li> <li>&gt; Must support Card based GSM</li> <li>&gt; Inbuilt Call Details Software with search engine software</li> <li>&gt; 8 Analog Trunks</li> <li>&gt; 1 PRI Trunk module</li> <li>&gt; 8 Digital Extensions</li> <li>&gt; 128 Analog Extensions</li> <li>&gt; 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)</li> <li>&gt; Expandable to 220 Ports wired or more at extra cost</li> </ul> <p><b>Makes: NEC/ Alcatel /Avaya/Siemens</b></p>	1 No	361000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-7.5.3	<p>Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications:</p> <ul style="list-style-type: none"> <li>&gt; IP @ Core, PCM/TDM switching, Non blocking,</li> <li>&gt; Must Support PRI, E1, Analog Junctions</li> <li>&gt; Must Support PC Console,</li> <li>&gt; Must support Mobile SIP (Android and IOs)</li> <li>&gt; Must support Voice Mail</li> <li>&gt; Must support Card based GSM</li> <li>&gt; Inbuilt Call Details Software with search engine software</li> <li>&gt; 8 Analog Trunks</li> <li>&gt; 1 PRI Trunk module</li> <li>&gt; 8 Digital Extensions</li> <li>&gt; 160 Analog Extensions</li> <li>&gt; 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)</li> <li>&gt; Inbuilt hotstandby for CPU and PSU.</li> <li>&gt; Compatibility to run on DC -48v source.</li> <li>&gt; Expandable to 220 Ports wired or more at extra cost</li> </ul> <p><b>Makes: NEC/ Alcatel /Avaya/Siemens</b></p>	1 No	435000
	ELEC-7.5.4	<p>Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications:</p> <ul style="list-style-type: none"> <li>&gt; IP @ Core, PCM/TDM switching, Non blocking,</li> <li>&gt; Must Support PRI, E1, Analog Junctions</li> <li>&gt; Must Support PC Console,</li> <li>&gt; Must support Mobile SIP (Android and IOs)</li> <li>&gt; Must support Voice Mail</li> <li>&gt; Must support Card based GSM</li> <li>&gt; Inbuilt Call Details Software with search engine software</li> <li>&gt; 8 Analog Trunks</li> <li>&gt; 1 PRI Trunk module</li> <li>&gt; 16 Digital Extensions</li> <li>&gt; 224 Analog Extensions</li> <li>&gt; 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)</li> <li>&gt; Inbuilt hotstandby for CPU and PSU.</li> <li>&gt; Compatibility to run on DC -48v source.</li> <li>&gt; Expandable to 400 Ports wired or more at extra cost</li> </ul> <p><b>Makes: NEC/ Alcatel /Avaya/Siemens</b></p>	1 No	606000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-7.5.5	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and IOs) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 16 Digital Extensions > 304 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost <b>Makes: NEC/ Alcatel /Avaya/Siemens</b>	1 No	702000
	ELEC-7.5.6	Supply and Installation of Analog Extension Card (with Caller ID) 16 extensions.	1 No	19900
	ELEC-7.5.7	Supply and Installation of Analog Trunk Card (with Caller ID) 8 trunks.	1 No	19900
	ELEC-7.5.8	Supply and Installation of Digital Extension Card for 8 digital extensions:	1 No	19900
	ELEC-7.5.9	Supply and Installation of Digital Extension Card for 16 digital extensions:	1 No	32700
	ELEC-7.5.10	Supply and Installation of E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1 No	49100
	ELEC-7.5.11	Supply and Installation of IP CPU card for redundancy purpose	1 No	35800
	ELEC-7.5.12	Supply and Installation of PSU card for redundancy purpose	1 No	21800
	ELEC-7.5.13	Supply and Installation of Digital Key Telephone with 2 line display, 10 programmable keys, handsfree dialing.	1 No	8400
	ELEC-7.5.14	Supply and Installation of Digital Key Telephone with 2 line display, 16 programmable keys, fully handsfree talk back.	1 No	14700
	ELEC-7.5.15	Supply and Installation of IP Gateway card for 8 channels	1 No	41500
	ELEC-7.5.16	Supply and Installation of IP Gateway card for 16 channels	1 No	60000
	ELEC-7.5.17	Supply and Installation of SIP extensions licenses pack (5 SIP extensions)	1 No	4250

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-7.5.18	Supply and Installation of SIP extensions licenses pack (10 SIP extensions)	1 No	7450
	ELEC-7.5.19	Supply and Installation of IP phone with POE.	1 No	16800
	ELEC-7.5.20	Supply and Installation of 4 port GSM card	1 No	43800
	ELEC-7.5.21	Supply and Installation of Expansion cabinet for 220 more extensions	1 No	83000
	ELEC-7.5.22	Supply and Installation of 100 Pair MDF along with IPM	1 No	13400
		<b>SECTION 8</b>		
	<b>8.1</b>	<b>MISCELLANEOUS ITEMS</b>		
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
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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
	<b>8.2</b>	<b>LEGEND PLATES</b>		
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
517	ELEC-8.2.5	Auto / Manuual	1 No	50
518	ELEC-8.2.6	Semi oval type alluminium 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 / Emergnecy on / Slow.	1 No	25
519	ELEC-8.2.7	Shock instrution chart in English / Hindi / Telugu duly framed with front glass	1 No	450
	<b>8.3</b>	<b>COPPER / ALLUMINIUM / G.I. ITEMS (PER KG)</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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	Alluminum Bus bars / Strips / Accessories	1 kg	230
524	ELEC-8.3.5	Alluminum winding wire	1 kg	300
525	ELEC-8.3.6	G.I. Strip / Plate / Wire	1 kg	65
	<b>8.4</b>	<b>SMC TYPE SUPPORTS FOR THE BUSBARS</b>		
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	8 mm LED series bulb (54 Nos.)	Set	300
531	ELEC-8.4.6	8 mm LED series bulb with Navar Patta (250/300 Nos.) with necessary control gear	Set	2500
	ELEC-8.4.7	LED RGB pixel series bulbs(50 Nos)	Set	550
	ELEC-8.4.8	LED RGB pixel series bulbs with Navvar Patta(150 Nos) with necessary control gear	Set	4500
	ELEC-8.4.9	Supply of 3W X54 LED RGB PAR cans with IP 67 protection	1 No	9500
533	ELEC-8.4.10	Supply and fixing of 6mm thick MS Chekered plate.	1 Kg	70
534	ELEC-8.4.11	Supply and fixing of 6mm thick Alluminium Chekered plate	1 Kg	250
535	ELEC-8.4.12	Copper old winding Wire scrap for 1 Kg	1 Kg	150
536	ELEC-8.4.13	Cement	1 Kg	8
537	ELEC-8.4.14	Cost of Sand	1 Cum	600

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
538	ELEC-8.4.15	Cost of Bricks	1000 Nos	4000
539	ELEC-8.4.16	Hylam Sheet	1 Sq inch	1
540	ELEC-8.4.17	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-8.4.18	80mm Nominal Bore C.I.Earth Pipe of 3 Mtrs Length	1 no	3400
542	ELEC-8.4.19	Earth work excacvation including all soils for trench, Pole Pit and Earth Pit	1 cum	250
543	ELEC-8.4.20	Drilling of 16 Nos through holes of 12mm dia to G.I pipe	1 No	6
544	ELEC-8.4.21	G.I Nuts, Bolts and Washers each set	1 set	12
545	ELEC-8.4.22	18" dia 2" thick hume pipe ring	1 No	250
546	ELEC-8.4.23	18" dia 3" hume pipe ring	1 No	300
547	ELEC-8.4.24	2" thick CC cover for hume pipe ring with handle.	1 No	130
548	ELEC-8.4.25	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-8.4.26	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
550	ELEC-8.4.27	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-8.4.28	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
552	ELEC-8.4.29	Supply of GI Louver shutter for exhaust fan		
	a	9 to 12"	1 no	150
	b	15 to 18"	1 no	180
553	ELEC-8.4.30	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
	<b>8.5</b>	<b>LABOUR RATES</b>		
554	ELEC-8.5.1	Skilled Electrician	1 No	
555	ELEC-8.5.2	Semi Skilled Electrician / Lineman	1 No	
556	ELEC-8.5.3	Helper (Electrical)	1 No	
557	ELEC-8.5.4	Skilled Mason	1 No	
558	ELEC-8.5.5	Semi Skilled Mason	1 No	
559	ELEC-8.5.6	Skilled Welder	1 No	
560	ELEC-8.5.7	Skilled Fitter	1 No	
561	ELEC-8.5.8	Semi Skilled Fitter / Welder	1 No	
562	ELEC-8.5.9	Skilled Carpenter	1 No	
563	ELEC-8.5.10	Semi Skilled Carpenter	1 No	
564	ELEC-8.5.11	Man Mazdoor	1 No	
565	ELEC-8.5.12	DG Set operator/Air Compressor Operator	1 No	
566	ELEC-8.5.13	2nd Class DG Set operator/Air Compressor Operator	1 No	
567	ELEC-8.5.14	Plumber (Licensed)/Pipe Fitter	1 No	
568	ELEC-8.5.15	Painter Class -2	1 No	
569	ELEC-8.5.16	Diploma Engineer / Surveyor	1 No	
570	ELEC-8.5.17	Graduate Engineer	1 No	

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
571	ELEC-8.5.18	ITI Certificate holder	1 No	
572	ELEC-8.5.19	Stenographer / Computer Operator	1 No	
		<b>NB : The labour rates may be adopted based on the common Civil SoR for the year 2018-19</b>		
	<b>9.1</b>	<b>WIRELESS FIRE ALARAM SYSTEM</b>		
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
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
	<b>9.2</b>	<b>ADDRESSABLE - FIRE ALARM SYSTEM</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 perUL and FM/EN54 & VDS standards and as required fixing of ..... Micro processor based Fire Alarm control panel with zonal indications and battery back up as per detailed specifications. Makes: Notifier / Edwards/Bosch		
	a	1 loop	1 No	175000
	b	2 loop	1 No	200000
	c	4 loop	1 No	245000
	d	6 loop	1 No	365000
	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 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 perUL and FM/EN54 & VDS standards and as required fixing of ..... Micro processor based Fire Alarm control panel with zonal indications and battery back up as per detailed specifications. Makes: Siemens / Morley / Honeywell/ Ravel/Seaara		
	a	1 loop	1 No	157000
	b	2 loop	1 No	176000
	c	4 loop	1 No	204000
	d	6 loop	1 No	295000
	e	8 loop	1 No	342000
	f	10 loop	1 No	490000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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/Bosch	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 / Honeywell/ Ravel/Seaara	1 No	85500
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/Bosch	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 / Honeywell/ Ravel/Seaara.	1 No	3700
582	ELEC-9.2.7	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alaram including the cost of mounting accessories etc. complete. Makes: Notifier / Edwards/Bosch	1 No	4500
583	ELEC-9.2.8	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alaram including the cost of mounting accessories etc. complete. Makes: Siemens / Morley / Honeywell/ Ravel/Seaara.	1 No	4000
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/Bosch	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 / Honeywell/ Ravel/Seaara.	1 No	3350
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/Bosch	1 No	4100

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
587	ELEC-9.2.12	Supply and installation of intelligent analogue addressable 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: Siemens / Morley / Honeywell/ Ravel/Seaara.	1 No	3600
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/Bosch	1 No	4200
589	ELEC-9.2.14	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: Siemens / Morley / Honeywell/ Ravel/Seaara.	1 No	3600
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/Bosch	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 / Honeywell/ Ravel/Seaara.	1 No	3700
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/Bosch	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 / Honeywell/ Ravel/Seaara.	1 No	3700
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/Bosch	1 No	3800

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 / Honeywell/ Ravel/Seaara.	1 No	3000
	<b>9.3</b>	<b>CONVENTIONAL - FIRE ALARM SYSTEM</b>		
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/Vertex		
	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: Makes: System Censor / Ravel/Vertex	1 No	12000
598	ELEC-9.3.3	Supply and installation of duel tone electronic hooter of 85dB including the cost of mounting accessories complete as per specifications and as required.Makes: System Censor / Ravel/Vertex	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.Makes: System Censor / Ravel/Vertex	1 No	600
600	ELEC-9.3.5	Supply and installation of response indicators for above false ceiling detectors.Makes: System Censor / Ravel/Vertex	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: Makes: System Censor / Ravel/Vertex	1 No	1600

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 Censor / Ravel/Vertex	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 Censor / Ravel/Vertex	1 No	1300
	<b>9.4</b>	<b>POWDER BASED FIRE EXTINGUISHERS</b>		
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 Guage, 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
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 polyester 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 polyester 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
		<b>CLEAN AGENT FIRE EXTINGUISHERS</b>		
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 polyster 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 polyster 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 <b>4.5 Kg capacity</b> 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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
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
		<b>AEROSOL GENERATION SYSTEM (An alternative to water based sprinkler system)</b>		
	ELEC-9.4.19	Supply,Installationand commissioning of Auto Detection and Suppression System using Non Pressurised <b>Aerosol Generator System with detection of thermocord to make the system standalone.</b> It can be used for all classes of fire, The product Min. Life shall be 15 years and no Maintenance. The Discharge time shall be 8 sec. The Generator has a net weight of 0.5 kg. Active Substance of 50gms. The Generator has a capacity to cover 1 m <sup>3</sup> . Makes: SEAARA/AGS/SALAMANDRA	1 No	4500
	ELEC-9.4.20	Supply,Installationand commissioning of Auto Detection and Suppression System using Non Pressurised <b>Aerosol Generator System with detection of thermocord and Inbuilt Aerosol Sprinkler flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade</b> as per the site environment to make the system standalone. It can be used for all classes of fire, The product Min. Life shall be 15 years and no Maintenance.The Discharge time shall be 18 sec. The Generator has a net weight of 2 kg. Active Substance of 300 gms. The Generator has a capacity to cover 6 m <sup>3</sup> . Makes: SEAARA/AGS/SALAMANDRA	1 No	35000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.4.21	Supply,Installationand commissioning of Auto Detection and Suppression System using Non Pressurised <b>Aerosol Generator System with detection of thermocord and Inbuilt Aerosol Sprinkler flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade</b> as per the site environment to make the system standalone . It can be used for all classes of fire, The product Min. Life shall be 15 years and no Maintenance. The Discharge time shall be 22 sec. The Generator has a net weight of 3 kg. Active Substance of 0.5 kg. The Generator has a capacity to cover 10 m <sup>3</sup> . Makes: SEAARA/AGS/SALAMANDRA	1 No	45000
	ELEC-9.4.22	Supply,Installationand commissioning of Auto Detection and Suppression System using Non Pressurised <b>Aerosol Generator System with detection of thermocord and Inbuilt Aerosol Sprinkler flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade</b> as per the site environment to make the system standalone to make the system standalone. It can be used for all classes of fire, The product Min. Life shall be 15 years and no Maintenance. The Discharge time shall be 45 sec. The Generator has a net weight of 4.6 kg. Active Substance of 1 kg. The Generator has a capacity to cover 20 m <sup>3</sup> . Makes: SEAARA/AGS/SALAMANDRA	1 No	65000
	ELEC-9.4.23	Supply,Installationand commissioning of Auto Detection and Suppression System using Non Pressurised <b>Aerosol Generator System with detection of thermocord and Inbuilt Aerosol Sprinkler flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade</b> as per the site environment to make the system standalone to make the system standalone. It can be used for all classes of fire. The product Min. Life shall be 15 years and no Maintenance. The Discharge time shall be 56 sec.The Generator has a net weight of 5.6 kg. Active Substance of 2 kg. The Generator has a capacity to cover 40 m <sup>3</sup> . Makes: SEAARA/AGS/SALAMANDRA	1 No	82000
	ELEC-9.4.24	Supply,Installationand commissioning of Auto Detection and Aerosol Suppression System using Non Pressurised <b>Aerosol Generator System with detection of thermocord and Inbuilt Aerosol Sprinkler flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade</b> as per the site environment to make the system standalone. It can be used for all classes of fire, The product Min. Life shall be 15 years and no Maintenance. The Discharge time should be 80 sec. The Generator has a net weight of 8 kg. Active Substance of 4 kg. The Generator has a capacity to cover 80 m <sup>3</sup> . Makes: SEAARA/AGS/SALAMANDRA	1 No	93000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.4.25	Supply,Installationand commissioning of Aerosol Fire suppression control Panel is basically a 10 Zone conventional panel with LED indications for sensors is open or fire. When the fire is detected by Sprinkler, Aerosol gets activated. 10 Aerosol Sprinkler input and 10 Aerosol Generator outputs provided. The Panel consists of 10 individual manual operation switch and one master switch to activate 10 Aerosol Generator outputs simultaneously	1 No	70000
	ELEC-9.4.26	Supply,Installationand commissioning of Aerosol control Switch is a Controller for Activation of Each Aerosol Generator Makes: SEAARA/AGS/SALAMANDRA	1 No	19500
	ELEC-9.4.27	Providing 'Fire Retardant Paint 1 hr Fire Resistance can be used to 'flame retard only 100 % cotton fabric, is normally used 'to treat coarse fabric e.g. tents etc. and gives coverage of 'approx. 120 to 130 sq.ft. to a fabric of 275-325 gsm. 'Can be applied 'Meant only for 100% cotton and coarse fabric like canvas '/' tents, natural wood etc. Makes: SEAARA/AGS/SALAMANDRA	1 No	1900
	ELEC-9.4.28	Providing 'Flame retard any kind of fabric, be it 100% polyester or '100% cotton. It is normally used to flame 'retard upholstery, curtains, carpets etc., gives a coverage 'of approx. 120 to 130 sq.ft. to a fabric of 275-325 gsm.	1 No	2600
	ELEC-9.4.29	Providing 'Fire Retardant coat towards passive protection to sustain 'up to 1000 Deg.C. for 1 hour. This product can be used for 'all the materials such as cable, steel, wood, cloth & 'concrete surface etc.	1 No	4200
	<b>9.5</b>	<b>FIRE HYDRANT AND SPRINKLER SYSTEM</b>		
		<b>ELECTRIC DRIVEN MAIN FIRE PUMPS(SPLIT CASE)</b>		
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 <b>of 1620 lpm at 56 Mtr. head</b> 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		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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 <b>2280 lpm at 70 Mtr. head</b> 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		
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 <b>2280 LPM and 120 Metres head conforming to IS 1520.</b>		
		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 <b>2850 lpm at 70 Mtr. head</b> conforming to IS 1520		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
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		
	ELEC-9.5.5	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	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		
		<b>DIESEL ENGINE DRIVEN FIRE PUMPS</b>		
619	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	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 <b>of 1620 lpm at 56 Mtr head</b> 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 alluminium 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.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Engines : Kirloskar / Cummins. Makes of Pumps : Kirloskar / Mather&Platt		
620	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	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 <b>2280 lpm at 70 Mtr head</b> 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-9.5.8	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 2019-20 (Rs.)
1	2	3	4	5
622	ELEC-9.5.9	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 <b>of 2850 lpm at 70 Mtr head</b> 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 alluminium 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-9.5.10	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	775000
		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 <b>of 2850 lpm at 120 Mtr head</b> 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 alluminium 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		
		<b>ELECTRIC DRIVEN MAIN FIRE PUMPS(END SUCTION)</b>		
624	ELEC-9.5.11	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		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 9.5.12	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	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		
626	ELEC 9.5.13	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		144000
		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		
		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.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
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 of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar		
		<b>DIESEL ENGINE DRIVEN MAIN FIRE PUMPS(END SUCTION)</b>		
627	ELEC-9.5.14	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-9.5.15	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		
629	ELEC-9.5.16	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		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		
		<b>JOCKEY PUMPS</b>		
630	ELEC-9.5.17	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 <b>180 lpm at 56 Mtr head</b> 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-9.5.18	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 <b>180 lpm at 70 Mtr head</b> 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 2019-20 (Rs.)
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		
632	ELEC-9.5.19	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	1set	110000
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of <b>180 lpm at 120 Mtr head</b> 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		
		<b>BOOSTER PUMPS</b>		
632	ELEC-9.5.20	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 <b>900 lpm at 45 Mtr head</b> 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		
633	ELEC-9.5.21	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
		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-9.5.22	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-9.5.23	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		
		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		
		<b>CONTROL PANELS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.5.24	Fabrication, supply, Transportation, Installation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply. Makes: L&T- D shine / Schneider-NS NSX/Legrand - DP X3/ Siemens-3VL / Hager-h3/C&S -Winbreak2 Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1 No	215000
		<u>INCOMING :</u>		
		250A, 50kA 4 Pole MCCB, Ics=100% Icu rating		
		Digital Voltmeter 0-500V with selector switch		
		Digital Ammeter (0-250 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps		
		Set of Copper Bus Bar 300A		
		<u>OUTGOING :</u>		
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
		<u>MAIN FIRE PUMP</u>		
		125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation selector switch for local/remote, auto/manual/OFF operation.		
		<u>JOCKEY PUMP</u>		
		63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
		<u>DIESEL ENGINE CONTROL</u>		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Water Temp and Engine on indication. Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0- 20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.5.25	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes: L&T- D shine / Schneider-NS NSX/Legrand - DP X3/ Siemens-3VL / Hager-h3/C&S -Winbreak2 Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1 No	253000
		<u>INCOMING :</u>		
		400A, 50kA 4 Pole MCCB, Ics=100% Icu rating		
		Digital Voltmeter 0-500V with selector switch		
		Ammeter (0-400 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip		
		indicating lamps		
		Set of Copper Bus Bar 500A		
		<u>OUTGOING :</u>		
		( Note : All outgoing feeders for pumps should have		
		digital Ammeter with selector switches, and LED type		
		ON, OFF, trip indicating lamps)		
		MAIN FIRE PUMP		
		200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
		JOCKEY PUMP		
		100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
		DIESEL ENGINE CONTROL		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.5.26	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications. Makes: L&T- D shine / Schneider-NS NSX/Legrand - DP X3/ Siemens-3VL / Hager-h3/C&S -Winbreak2 Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1 No	280000
		<u>INCOMING :</u>		
		630A, 50kA 4 Pole MCCB, Ics=100% Icu rating		
		Digital Voltmeter 0-500V with selector switch		
		Ammeter (0-630 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip		
		indicating lamps		
		Set of Copper Bus Bar 800Amps		
		<u>OUT GOING :</u>		
		( Note : All outgoing feeders for pumps should have		
		digital Ammeter with selector switches, and LED type		
		ON, OFF, trip indicating lamps)		
		<u>MAIN FIRE PUMP</u>		
		250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
		<u>JOCKEY PUMP</u>		
		125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
		<u>DIESEL ENGINE CONTROL</u>		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.5.27	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes: L&T- D shine / Schneider-NS NSX/Legrand - DP X3/ Siemens-3VL / Hager-h3/C&S -Winbreak2 Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1 No	328000
		<u>INCOMING :</u>		
		400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating		
		Digital Voltmeter 0-500V with selector switch		
		Ammeter (0-400 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip		
		indicating lamps		
		Set of Copper Bus Bar 500Amps		
		<u>OUT GOING :</u>		
		( Note : All outgoing feeders for pumps should have		
		digital Ammeter with selector switches, and LED type		
		ON, OFF, trip indicating lamps)		
		MAIN FIRE PUMPS		
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
		JOCKEY PUMP		
		63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
		DIESEL ENGINE CONTROL		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indi Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.5.28	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes: L&T- D shine / Schneider-NS NSX/Legrand - DP X3/ Siemens-3VL / Hager-h3/C&S -Winbreak2 Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1 No	392000
		<u>INCOMING :</u>		
		630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating		
		Digital Voltmeter 0-500V with selector switch		
		Ammeter (0-630 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip		
		indicating lamps		
		Set of Copper Bus Bar 800Amps		
		<u>OUT GOING :</u>		
		(Note : All outgoing feeders for pumps should have		
		digital Ammeter with selector switches, and LED type		
		ON, OFF, trip indicating lamps)		
		MAIN FIRE PUMP		
		200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
		JOCKEY PUMP		
		100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
		DIESEL ENGINE CONTROL		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	ELEC-9.5.29	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1 No	500000
		<u>INCOMING :</u>		
		800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating		
		Digital Voltmeter 0-500V with selector switch		
		Ammeter (0-800 A) with selector switch & CTs etc.		
		LED type RYB phase indicating lamps, ON, OFF, trip		
		indicating lamps		
		Set of Copper Bus Bar 1000Amps		
		<u>OUT GOING :</u>		
		( Note : All outgoing feeders for pumps should have		
		digital Ammeter with selector switches, and LED type		
		ON, OFF, trip indicating lamps)		
		Main Fire Pump		
		250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
		JOCKEY PUMP		
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
		DIESEL ENGINE CONTROL		
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller		
		<b>MS PIPES</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
636	ELEC-9.5.30	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		
		<b>C-CLASS MS PIPES</b>		
	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>B- CLASS MS PIPES</b>		
	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-9.5.31	Supplying and fixing single headed Internal / External hydrant valve with instantaneous Gun metal/Stainless steel 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/Honeywell		
	a	Single Headed Gun Metal	1 No	7300
	b	Single Headed Stainless Steel	1 No	6500

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
638	ELEC-9.5.32	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/Honeywell		
	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-9.5.33	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/Honeywell		
	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-9.5.34	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/Honeywell		
	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-9.5.35	Providing, installation, testing and commissioning of gun metal valves of following sizes as required. Make: NEU-G/Zolotto/Padmini/SANT/Honeywell		
	a	50 mm dia	1 No	1600
	b	40 mm dia	1 No	1300

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	c	32 mm dia	1 No	1175
642	ELEC-9.5.36	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/Honeywell		
	a	Gun metal	1 No	5630
	b	SS couplings	1 No	4200
643	ELEC-9.5.37	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/Honeywell		
	a	Gun metal	1 No	4800
	b	SS couplings	1 No	4000
644	ELEC-9.5.38	Supply, installation, testing and commissioning of stainless steel Y – Stainer fabricated outof 1.6 mm thick SS 304 with following sizes confirming to IS specifications complete with rubber gasket, GI bolts , nuts, washers etc as required Makes: Leader / Zolotto/SANT/Honeywell.		
	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-9.5.39	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.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
646	ELEC-9.5.40	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
647	ELEC-9.5.41	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		
	a	Gun metal	1 No	2200
	b	SS couplings	1 No	1600
648	ELEC-9.5.42	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/Honeywell	1 No	8000
649	ELEC-9.5.43	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/Honeywell	1 No	6000
650	ELEC-9.5.44	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-9.5.45	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-9.5.46	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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
653	ELEC-9.5.47	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-9.5.48	Providing and fixing Flow Switches in 100mm dia MS pipe. Makes : System Sensor / Switzer /Honeywell	1 No	4800
655	ELEC-9.5.49	Providing and fixing Flow Switches in 150 mm dia MS pipe. Makes : System Sensor / Switzer /Honeywell	1 No	6700
656	ELEC-9.5.50	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/cm <sup>2</sup> . MAKES: HGURU / FIEBIG	1 No	600
657	ELEC-9.5.51	Supply, installation, testing and commissioning of 25mm dia Gate valve Makes : Zoloto / Leader / SANT/NEU-G	1 No	1050
658	ELEC-9.5.52	Supply, installation, testing and commissioning of 25mm dia Ball valve Makes : Zoloto / Leader / SANT/NEU-G	1 No	580
659	ELEC-9.5.53	Supply, installation, testing and commissioning of 25 / 20mm dia Air Release Valve Makes : Zoloto / Leader / SANT	1 No	1100
	ELEC-9.5.54	Supply, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required 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-9.5.55	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and 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 follwing sizes as required : Makes : HD / TYCO / NEWAGE		
	a	80mm dia	1 No	36000
	b	100mm dia	1 No	38000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	c	150mm dia	1 No	40000
661	ELEC-9.5.56	Supplying, installing, testing and commissioning of CI body Foot Valve with brass strainer with necessary flanges, nuts and bolts etc., complete on to the suction line. 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
	ELEC-9.5.57	Supply and laying of 300mm dia NP2 RCC Hume pipe with Collars for Road crossings -As per Civil SoR		
662	ELEC-9.5.58	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 specifications. 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	270
	D	d) 80mm nominal dia	1 Mtr	230
663	ELEC-9.5.59	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
		<b>SECTION 10</b>		
	<b>10.1</b>	<b>GENERATORS SPECIFICATION</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
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 &amp; AC Brush less SPDP Alternator mounted on a common base Frame &amp; coupled through a flexible coupling or close coupled.</p> <p><b>Alternator:</b> It shall be self regulated, self excited and conforms 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 &amp; under voltage).</p> <p><b>Diesel Engine:</b> It shall have residential silencer, up to 10 M exhaust piping , electronic / Mechanical governor, Manual &amp; electric Start, Batteries, Fuel tank ( with Stand) &amp; piping, control panel (16 G) with MCCB (4P; 25 KA), Ammeter, Voltmeter, Frequency Meter, Energy Meter &amp; 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><b>Accoustic Enclosure:</b> 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 &amp; 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>		
		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 :		
		<b>Radiator Cooled and Turbocharged</b>		
	<b>a</b>	15 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	340000
	<b>b</b>	30 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	440000
	<b>c</b>	40 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	548000
	<b>d</b>	62.5kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	630000
	<b>e</b>	125 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	825000
	<b>(a to e)</b>	<b>Engine Makes:Cummins/Koel Green/Sterling/ mahindra/Volvo-Eicher Alternator Make:Stamford/ Kirloskar/ CromptonGreaves /Leroysoner</b>		
	<b>f</b>	160 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	1080000
	<b>g</b>	DELETED	1 No	
	<b>h</b>	250 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	1450000
	<b>i</b>	320 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	2250000
	<b>j</b>	380 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	2870000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	(f to j)	<b>Engine Makes:Caterpillar/Cummins/Koel Green Alternator Make:Leroy somer/Crompton Greaves/Stamford</b>		
	k	500kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	3150000
	l	625 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	3800000
	m	750 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	4730000
	n	1000 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	5700000
	o	1250 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	7700000
	p	1500 kVA at 0.8 pf 415V 50Hz 3-Ø	1 No	8740000
	(k to p)	<b>Engine Makes:Caterpillar/Perkins/Cummins Alternator Make:Leroy somer/Crompton Greaves/Stamford</b>		
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 2mm Thick , 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:		
		<b>PLC based AMF Panel</b>		
	a	25 to 40 KVA	1 No	75000
	b	50 to 63.5 KVA	1 No	110000
	c	80 to 160 KVA	1 No	155000
	d	180 to 250 KVA	1 No	210000
	e	320 to 500 KVA	1 No	260000
		<b>Electro-Mechanical Relay Based AMF Panel</b>		
	f	25 to 63.5 KVA	1 No	55000
	f	80 to 180 KVA	1 No	92500
	g	200 to 500 KVA	1 No	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 with Aluminium cladding (Density - 96 Kg/m <sup>3</sup> thickness -50mm) for Exhaust pipe	Mtr	1247
		<b>SECTION 11</b>		
	<b>11.1</b>	<b>INVERTERS and ONLINE UPS SYSTEMS</b>		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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		
	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 , 72/96VDC	1 No	24000
	b	3.0 KVA , 72/96 VDC	1 No	33000
	c	3.0 KVA , 72/96 VDC with Isolation Transformer	1 No	37800
	d	6.0 KVA , 192/240 VDC with Isolation Transformer	1 No	65000
	e	7.0 KVA , 192/240 VDC with Isolation Transformer	1 No	78500
	f	10.0 KVA , 192-240 VDC with Isolation Transformer	1 No	94500
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/Consul NeoWatt		
	a	60 KVA	1 No	650000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
	b	80.0 KVA	1 No	850000
	c	100.0 KVA	1 No	985000
	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	3200
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	5700
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	7200
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 120/130 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

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Basic Rate for SOR 2019-20 (Rs.)
1	2	3	4	5
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	deleted
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

**9.28 SPECIFICATION FOR uPVC CASEMENT / SLIDING WINDOW & DOOR**  
**(DSR ITEM 9.147A to 9.147F.4)**  
**(Figures. 9.29 to 9.38)**

**9.28.1 Material**

uPVC (un-plasticised polyvinyl chloride) is PVC resin blended with acrylic modifier, titanium dioxide and other chemicals. Then it is processed through machine and mould to produce required uPVC multi-chambered profiles.

The factory made uPVC white colour doors and windows shall be comprising of approved uPVC make multi-chambered frames, sash and mullion duly reinforced with appropriate thickness of galvanised iron section of required length, an appropriate dimension of uPVC glazing beads, EPDM gasket according to frame/sash profile and specified hardware and fittings of approved make having dimensions as per nomenclature of items. There are two type of uPVC extruded profile series which are used depending upon the size and design of window/door and wind load consideration and the agency shall also provide wind load calculation sheet duly approved by the Engineer-in-Charge as per IS 875 (Part-3) namely **Small Series** (small depth dimension) having wall thickness of  $1.9 \pm 0.2$  mm and **Big Series** (big depth dimension) having wall thickness of  $2.3 \pm 0.2$  mm of uPVC main profile i.e frame. Depth and width of the profile mentioned in the nomenclature of the item is as following.

- i) **Depth of a profile (D)**- Dimension which is measured at right angles to the glazing plane, between the front and back face surfaces of a profile.
- ii) **Width of a profile (W)**-Dimension, measured in the direction of the glazing plane, and perpendicular to the longitudinal axis of the profile.

**9.28.1.1 Tolerance in profile dimension**

For uPVC frame, sash and mullion extruded profile minus 5 % tolerance in dimension. i.e in depth and width of profile shall be accepted. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.

**9.28.2 Terminology**

**a) Frame**

Non movable or fixed portion of the window/door attached to the wall and to which the sash is assembled.

**b) Sash**

Movable part in a window/door.

**c) Glazing Bead**

Profile which holds the glass or any other partition materials.

**d) Transom (or Mullion)**

Profile used within the frame, vertically or horizontally in a frame and/ or sash.

**9.28.3 Marking**

uPVC profiles shall be legibly and visibly marked in an unobtrusive position not visible when the window is closed at least once every one meter along the length of the profile and it should be visible when the window is open as well as shall contain the following minimum information on the main profile such as frame, sash and mullion/transom.

- i) The name of the trade mark or brand name of the manufacturer
- ii) Date of manufacturing and profile code

#### 9.28.4 Testing (Criteria for conformity)

The uPVC extruded hollow profiles use in window and doors shall conform to the specification as per EN 12608 and other standards as mentioned below:

S.No.	Name of the test	Test Method	Specified Parameter
i)	Vicat Softening Temperature	EN ISO – 306	Shall not be $<75^{\circ}\text{C}$
ii)	Charpy Impact Strength	EN ISO – 179-2	Shall not be $<20\text{KJ/m}^2$
iii)	Flexural Modulus Elasticity	EN ISO – 178	Shall not be $<2200\text{ N/mm}^2$
iv)	Tensile Impact Strength	EN ISO – 8256	Shall not be $<600\text{ KJ/m}^2$
v)	Mean Breaking Stress for welded corner	EN – 514	
	a) For the tensile bending test		Shall not be $<25\text{ N/mm}^2$
	or		
	b) For the compression bending test		Shall not be $<30\text{N/mm}^2$
vi)	Heat Reversion Test	IS:4985-2000	Shall not be $> 2.0\%$

For the determination of the weld ability of profiles, welded corners shall be tested for tests as mentioned above. The sample subjected to weld test shall not be finished by grooving and knifing etc. except for the outside edge of 90 degree angle, which shall be cleaned to permit the sample to sit fully on to the support.

Minimum percentage of titanium dioxide content in uPVC profiles shall not be less than 7.00 percent and calcium carbonate content shall not be more than 10.00 percent.

The uPVC casement / fixed / sliding windows and doors shall be factory fabricated by the approved manufacturer and installation work shall be carried out by them or their authorised vendor duly approved by the Engineer -in -charge.

#### 9.28.5 Configuration

Indicative size and configuration of window& door (Casement/ sliding) are given in figure 9.29 to 9.38. In case a new configuration is to be provided, same shall be specified in the item and figure included in the tender document.

#### 9.28.6 Fabrication

- According to the drawing, the required dimension and length of uPVC frame, sash and mullion profiles shall be mitred cut and reinforced with galvanised iron section of required length and thickness.
- All frame and sash profiles of door and window shall be fusion welded at all corners. Mullion and Transom profiles shall also be fusion welded as per window / door design so as to prevent any ingress of water or air in the reinforcement chamber.
- Each corner and joints shall be neatly cleaned by removing all excess material. The weld shall be finished by grooving, knifing etc. at exposed welded portion only.
- The minimum overlap of minimum 6 mm shall be provided on frame and mullion to ensure effective seal between the sash and frame.
- The window / door shall be designed and provided water drainage/ventilation slots in profile of frame, sash, transom or mullion in order to permit the escape of entrapped water, moisture from the system. A minimum of 2 nos slots shall be provided at least at every 500 mm. The drainage shall be so designed as not to puncture the reinforcement chamber and prevent water running through the reinforcement chamber. The holes and slots shall offset between the inner and outer walls so as to prevent any back flow.

#### 9.28.7 Reinforcement

- (i) The reinforcement material should be non-hygroscopic and should have no adverse effect of the performance of the window/door and it shall conform to any grade of IS 1079 or IS 513.
- (ii) Mild steel section reinforcement made from Roll forming process and shall be hot dip zinc galvanised in accordance with IS 277 with a minimum coating mass of 120 gm/sqm.
- (iii) The thickness of reinforcement shall be as such that the uPVC window and doors meet the design wind pressure in accordance with IS 875 (Part-3) and design of the reinforcement should be as per uPVC profile manufacturer recommendation and fix to ensure adequate fastener retention.
- (iv) Galvanised mild steel reinforcement section is to be inserted in uPVC frame, sash and mullion profile of required length with in 6 to 15 mm distance from the face of the weld and then shall be screwed at 150mm from the end at every 400 mm (maximum) pitch to uPVC profile so that it does not move or rattle.
- (v) Galvanised mild steel reinforcement section thickness shall be changed according to floor level keeping in consideration of wind load factor and minimum thickness should be as below :
  - a) From ground floor upto floor 5th level =  $1.60 \pm 0.2$  mm
  - b) From floor 5th level onwards =  $2.20 \pm 0.2$  mm

#### 9.28.8 Glazing

- i) After fusion welding and cleaning of the corner of the sash prescribed glass panes shall be placed after fitting EPDM gasket and uPVC beading of approved quality and make.
- ii) Window sash shall be made in such a way that glazing or re-glazing is possible at site without the need to remove the outer frame.
- iii) The plastic spacer shall be used to provide to support the glass in sash/frame.
- iv) The following glass thickness shall be used in uPVC windows and doors but in no case less than 4mm.
  - a) For single glazing - 4 to 6mm
  - b) For double glazing - 20 mm or 24mm

Glazing supports shall be provided on frame or sash in order to distribute the load of the glass and to place the glass in the frame or sash. Spacers that would provide supports to the glass in the frame or sash shall be installed after the glazing support are installed. The supports and spacers shall be so placed as not block the drainage holes/slots.

#### 9.28.9 Glazing gasket & Weather pile strip/ Wool pile

- i) Material for glazing gaskets shall be of EPDM (Ethylene propylene diene monomer) and shall be used on both side of glass panes in uPVC sash and glazing bead profiles.
- ii) Weather pile strip / Wool pile shall be used in uPVC sliding door and window to reduce air filtration and water penetration.

#### 9.28.10 Window / Door Hardware and Fittings

Materials for all hardware except for fixing shall have at least the equivalent corrosion resistance of EN 1670-1988 grade 4 (240 hrs) when subjected to natural salt spray testing in accordance with EN ISO 9227. Testing shall be carried out on complete hardware items and also duly approved by the Engineer - in - charge before use at the site of work.

Hardware like hinges, rollers and locking devices which have been life cycle tested in accordance with EN 199 (Windows and Doors - Resistance to repeated opening and closing - Test method) and have achieved at least 10,000 operating cycles (i.e. opening and closing) without deterioration, failure or excessive wear.

These shall be provided as per nomenclature of item of approved make and duly approved by Engineer-in-Charge before fixing at site of work. Hardware / fittings such as handle, roller, touch lock, multipoint locking, 3D hinges, friction hinges etc. shall be directly screwed not pre-drilled or hammered.

#### **9.28.10.1 For Casement windows**

Approved quality stainless steel friction hinges (SS 304 grade) with SS screws shall be provided as per nomenclature of item and length of friction hinges should cover more than 60 percent width of the shutter and two number friction hinges required for each shutter one at top and one at bottom.

#### **9.28.10.2 For Casement doors**

Minimum three numbers of approved quality 3D hinges with necessary SS screws shall be provided in the casement door shutter up to 0.90 meter in width and 2.10 meter in height, for more than 2.10 metre height minimum four numbers 3D hinges to be used.

#### **9.28.10.3 For Sliding windows/doors**

- (i) One pair of zinc alloy body with single nylon roller (weight bearing capacity to be 40 kg) upto 1.50m window height dimension and one pair stainless steel (SS 304 grade) body with adjustable double nylon roller (weight bearing capacity to be 120 kg) above 1.50 m window height dimension of approved quality to each shutter of window shall be provided.
- (ii) One pair of adjustable double nylon roller of approved quality to each shutter of door shall be provided.

#### **9.28.11 Tolerance**

The tolerance in dimensions of finished window / door in size shall not be more than  $\pm 5$ mm from the approved drawing dimension.

#### **9.28.12 Installation**

- i) There shall be a maximum gap of 3 to 5mm in between uPVC door / window frame and finished opening and the plastic packers shall be provided to maintain the level.
- ii) To maintain the exact dimension of door or window, the opening shall be checked for dimension and orthogonally using a prefabricated template. Any defect shall be made good by the agency at his own cost before fixing of door or window.
- iii) The uPVC frames are to be fixed in prepared opening in the walls. Window / door frame shall be fixed into the aperture by drilling through the outer frame to the existing structure and shall use 100 x 8mm fasteners of approved make.
- iv) The gap between uPVC window / door and adjacent RCC/Brick/Stone cladding work shall be filled with weatherproof Silicon sealant of approved make to maximum 5mm depth and 5mm width to allow expansion/contraction of uPVC profiles. Silicon sealant of matching colour of uPVC profile shall be applied over backer rod.

#### **9.28.13 Precautions taken before installation of uPVC Window & Door**

- i) Jambs, sills and soffits of the opening shall be finished with plaster / stone / tiles according to agreement where uPVC window / door to be fixed.
- ii) Aperture shall be smooth in line and level as well as in plumb.
- iii) Flooring (where casement door is to be installed should be complete before installation of door).
- iv) The grill where to be installed in sliding / casement window should be provided after the installation of window.
  - a) For sliding window – The grill shall be provided on the outer face of window.
  - b) For casement window – The grill shall be provided on the inner face of window.
- v) Installation of uPVC door and window should be done before the last coat of the paint on the wall where window jambs, sills and soffits to be finished by paint. Atleast one coat of paint should be done before installation begins.
- vi) The colour of the profile shall be same and uniform on any surfaces or part of the surfaces which may be visible after installation of the window/door fabricated from the profile, when viewed by the normal vision.
- vii) The uPVC profiles manufacturer shall provide warranty of 10 years for colour fastness and any manufacturing defects in respect of uPVC profiles as well as water and air tightness in case of casement uPVC door/window unit.
- viii) uPVC door/windows hardware and fittings manufacturer shall provide warranty of 10 years for any manufacturing defects.

#### **9.28.14 Mode of Measurement**

The length and width of the window / door shall be measured from outer to outer face of the uPVC frame correct to a centimetre. Area shall be calculated in square meter nearest to 0.01 square metres.

#### **9.28.15 Rate**

The rate includes the cost of all labour, material and T&P involved in all the operations described above at all heights of the building. The cost of glass panes, wire mesh and silicon sealant shall be paid separately.

## uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.26

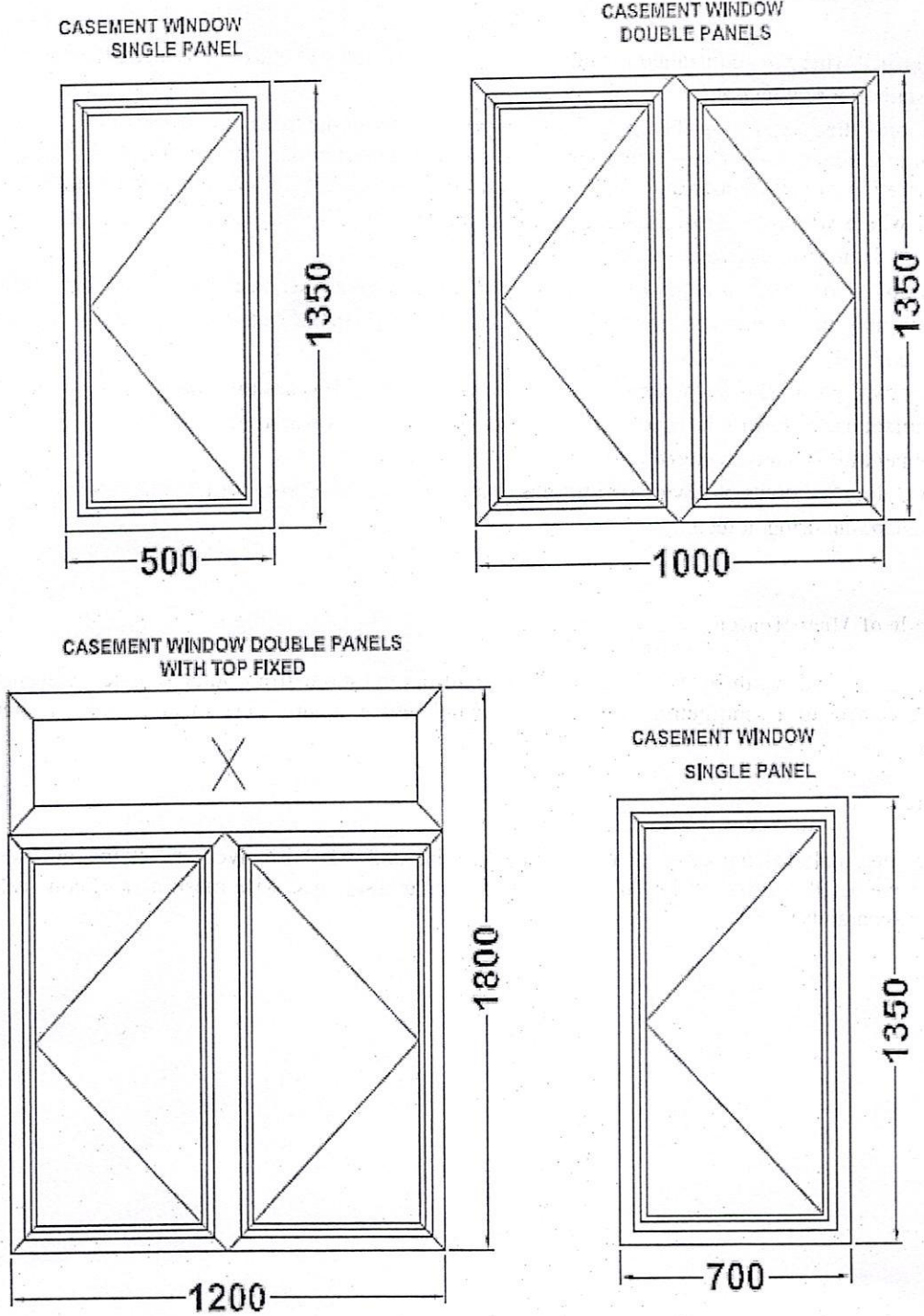


Fig. 9.29: uPVC Doors and Windows

# uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.28

## TYPICAL SLIDER SYSTEM

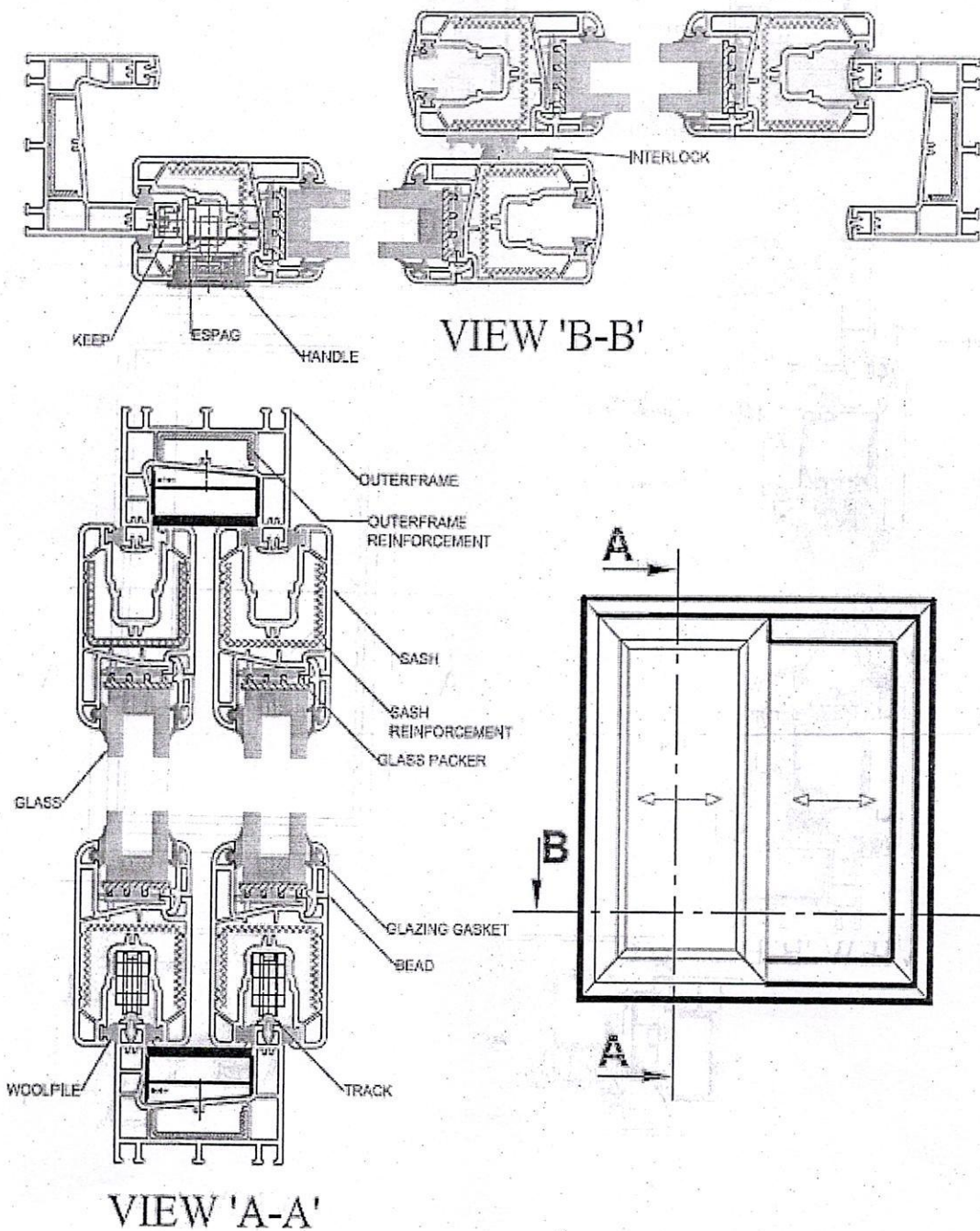


Fig. 9.38: uPVC Doors and Windows (Typical slider system)

# uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.28

## TYPICAL CASEMENT SYSTEM WITH TOP FIX

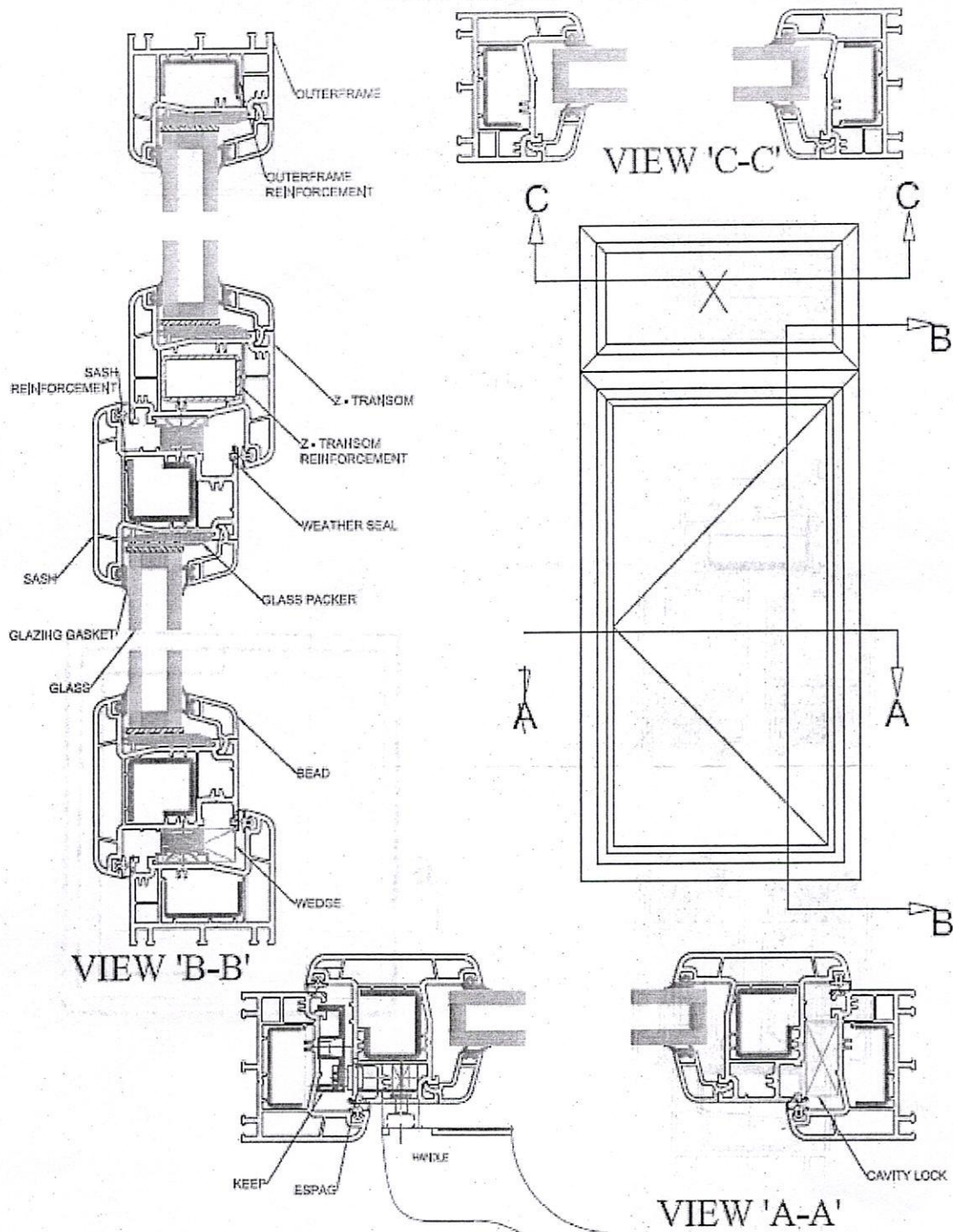


Fig. 9.37: uPVC Doors and Windows (Typical casement with top fixed system)

# uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.28

THREE TRACK THREE PANEL WITH  
WIRE MESH PANEL SLIDING DOOR

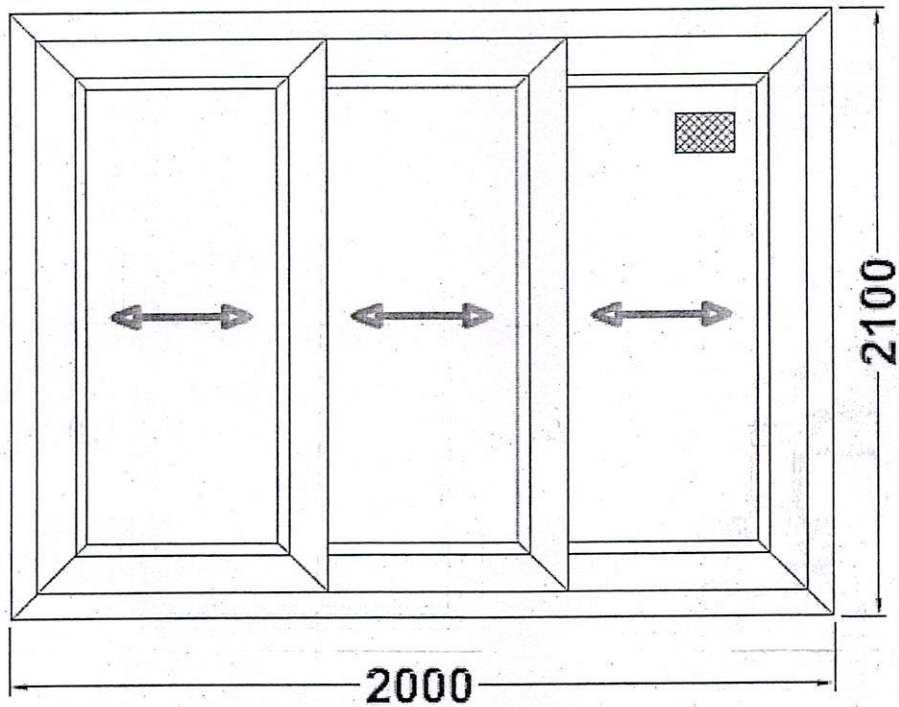


Fig. 9.35: uPVC Doors and Windows

# uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.26

## TYPICAL CASEMENT SYSTEM

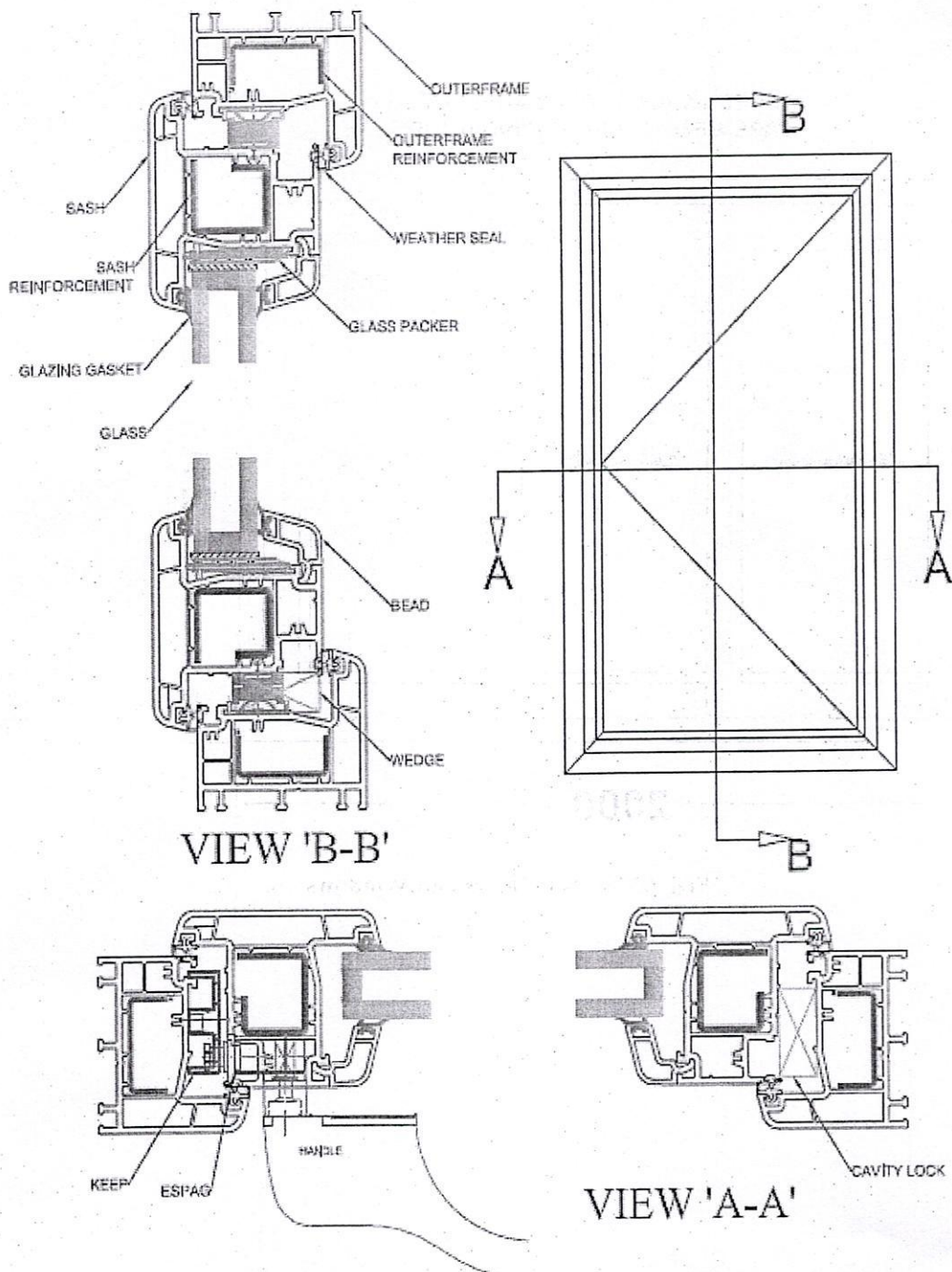
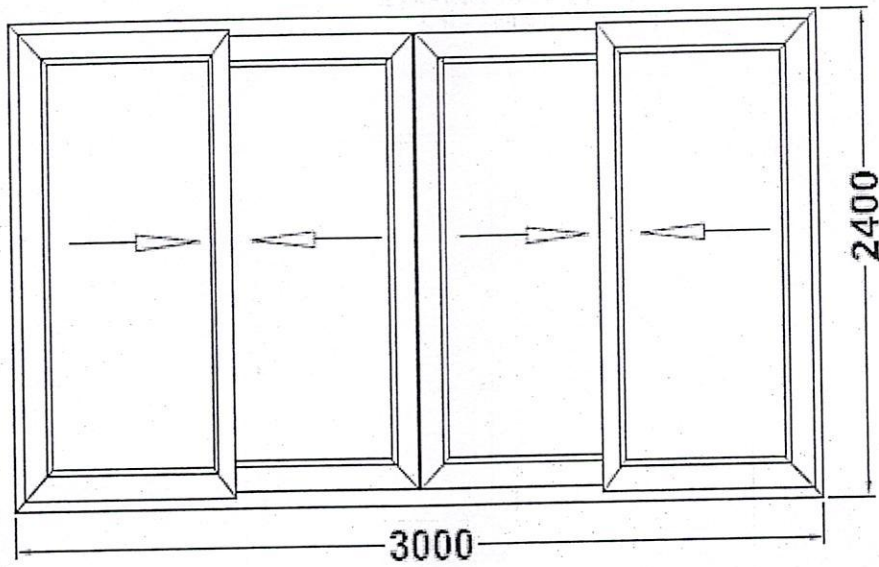


Fig. 9.36: uPVC Doors and Windows (Typical casement system)

## uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.26

TWO TRACK FOUR PANEL SLIDING WINDOW



TWO TRACK FOUR PANEL SLIDING DOOR

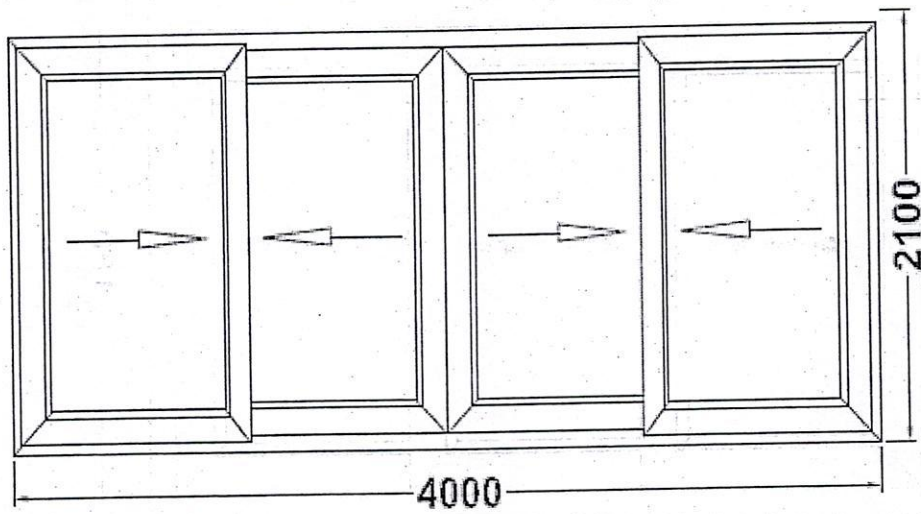
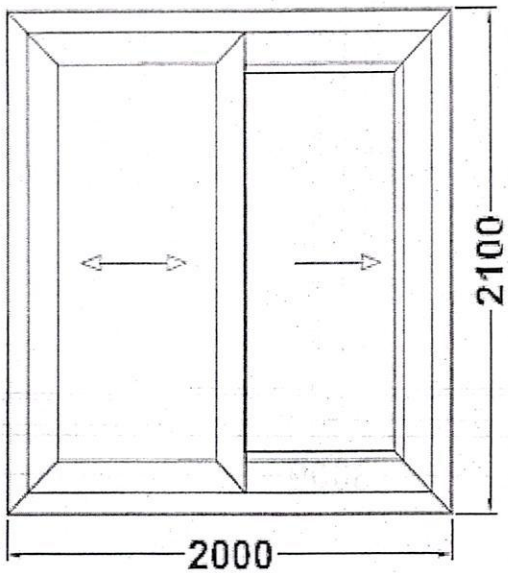


Fig. 9.33: uPVC Doors and Windows

uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.28

TWO TRACK TWO PANEL  
SLIDING DOOR



THREE TRACK THREE PANEL SLIDING DOOR

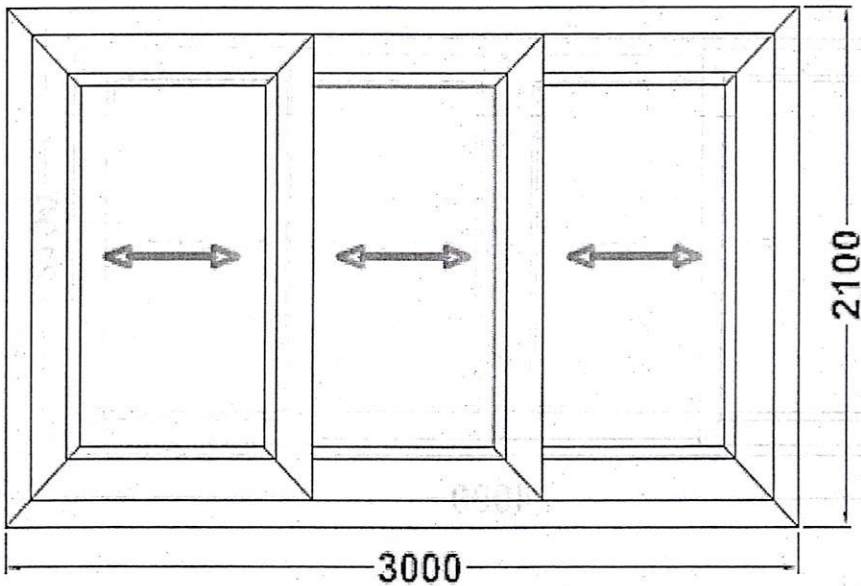


Fig. 9.34: uPVC Doors and Windows

uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.26

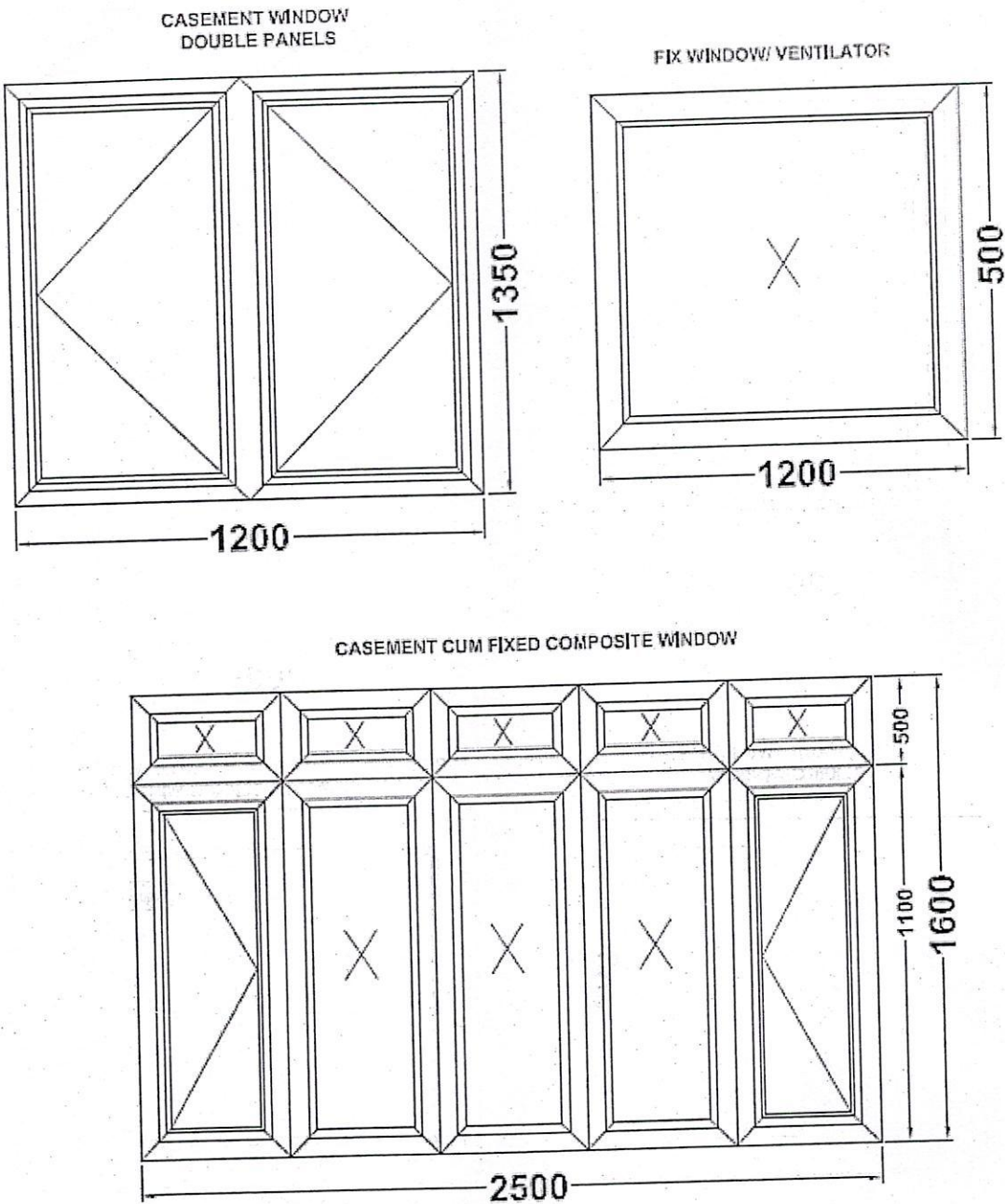


Fig. 9.30: uPVC Doors and Windows

# uPVC DOORS AND WINDOWS

SUB HEAD : WOOD WORK & PVC WORK  
CLAUSE : 9.26

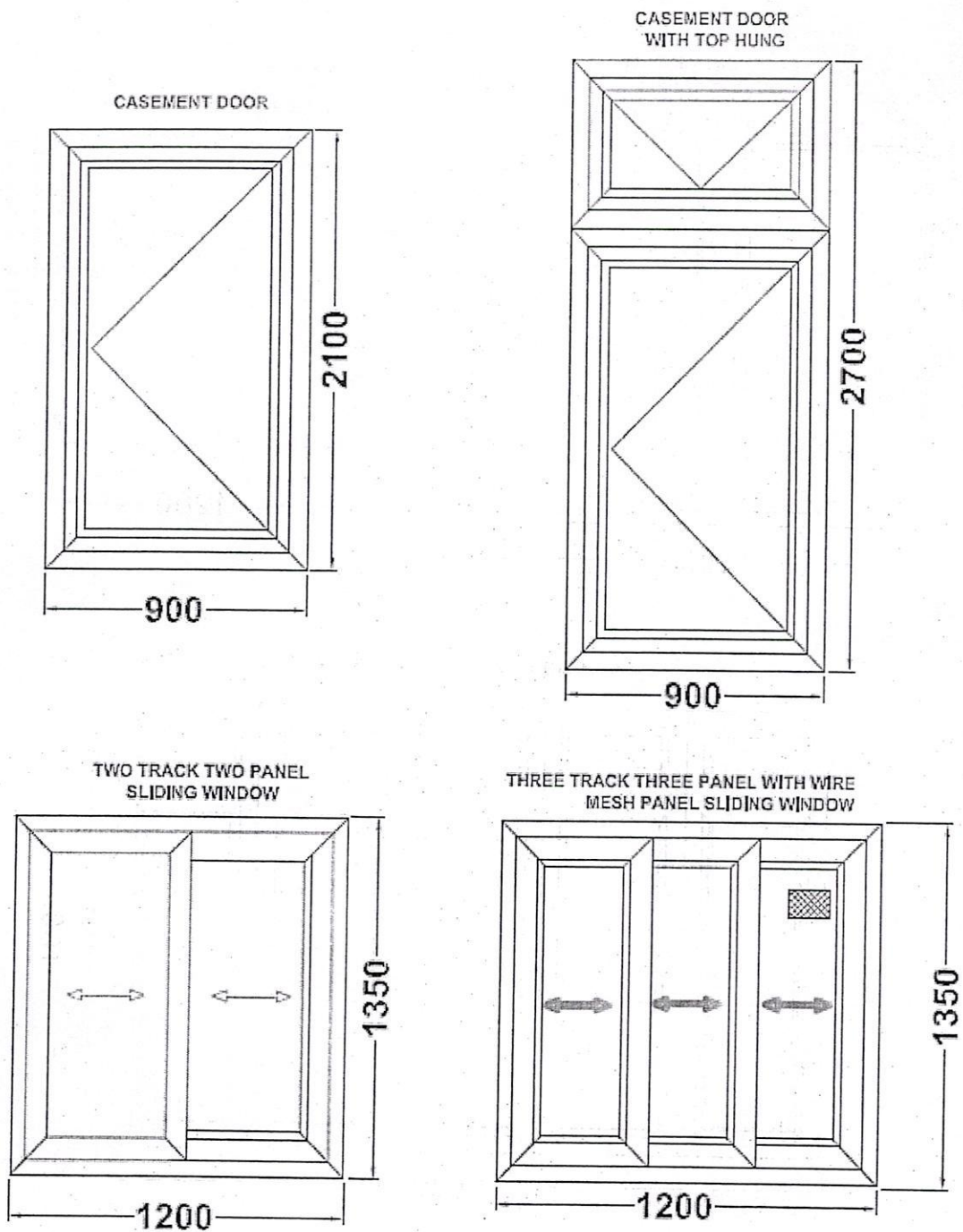


Fig. 9.31: uPVC Doors and Windows

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