



**National Institute of Technology  
Rourkela**

NO:NITR/ET/CM/

Date:

**Proposals for maintenance of quarters by contractors under Rate contract  
(To be submitted by Engineer in Charge to EE (Civil))**

1. Register Entry No: \_\_\_\_\_ 2. Date: \_\_\_\_\_
3. Qtr No/ Building: \_\_\_\_\_ 4. Occupied: Yes/No \_\_\_\_\_
5. Name of the Resident or Past Resident: \_\_\_\_\_
6. Total Estimated Maintenance Cost As per Item no 8(A): Rs. \_\_\_\_\_
7. Time required for completion: \_\_\_\_\_ Month \_\_\_\_\_ Days
8. List of items and approximate cost estimate.

Sl.No	Description of Items	Approximate cost
1.		Rs.
2.		Rs.
3.		Rs.
4.		Rs.
5.		Rs.
6.		Rs.
7.		Rs.
8.		Rs.
9.		Rs.
10.		Rs.
11.		Rs.
12.		Rs.
13.	Cleaning of Building Space	Rs.
14.	Cleaning of Compound	Rs.
15.	Transportation of Debris	Rs.
16.	Miscellaneous Items	Rs.
<b>TOTAL</b>		Rs.
Total Estimate (approximate)		Rs. =A

Note: A copy of item no -9 (Sl.No., Description of items & Approximate cost is to be handed over to the contractor as annexure to work order.

9. Estimate of repair cost of damages caused by resident or past resident (With details): Rs. \_\_\_\_\_

10. Signature of JE / Stipendiary Engineer \_\_\_\_\_ date \_\_\_\_\_

11. Signature of Engineer (Civil) \_\_\_\_\_ date \_\_\_\_\_

12. (a) I agree with the proposal. It may be assigned to the contractor, M/S \_\_\_\_\_
- (b) In case of repair of residential quarters the limit of expenditure has been kept is below Rs 30,000.00 for A, B and C type quarters and below 15,000.00 for Other types.
- (c) The work proposed are only towards restoring the original condition of the building and for minor enhancement of standard.

13. Finance Officer will be intimated for recovery of Rs. \_\_\_\_\_ to wards cost of maintenance including overhead charges ( @ 300 % ) from th e resident/ past resident, if willful damage caused by the resident.

14. Submitted for Approval

Signature of EE (Civil) \_\_\_\_\_ date \_\_\_\_\_

15. Approved / Recommended for Approval

\_\_\_\_\_  
PIC (Civil Maintenance)

Approved / Recommended for Approval

Approved

\_\_\_\_\_  
Dean (PD)

\_\_\_\_\_  
Director

16. Work Order No: NITR/EM/SC/WO/ \_\_\_\_\_ Date: \_\_\_\_\_ Issued

Signature of EE (Civil) \_\_\_\_\_ date \_\_\_\_\_

<b>Approving Authority</b>	
≤ 50,000.00	PIC (Civil Maintenance)
≤ 100,000.00	Dean (PD)
≤ 5,00,000.00	Director



**National Institute of Technology  
Rourkela**

NO:NITR/EM/SC/

Date:

**OFFICE OF THE EXECUTIVE ENGINEER (CIVIL)**

Work order for minor maintenance work under rate contract

1. Work order No : NITR/EM/SC/WO/\_\_\_\_\_date \_\_\_\_\_
2. Name of the Work : Maint./Renovation of Building . \_\_\_\_\_/ \_\_\_\_\_ Bldg
3. Name of the Contractor : \_\_\_\_\_
4. Estimated maximum cost : Rs. \_\_\_\_\_  
[Any expenditure beyond this figure will be on the contractors Account]
5. Duration : \_\_\_\_\_Month \_\_\_\_\_Days
6. List of Works : [As per Annexure] Enclosed
7. General terms of contract : As per terms given with the agreement on rate contract
8. Special terms of contract (if any) : As per Institute Contract Procedure

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9. Note :

- (a) All materials and workmanship must be highest quality available in the market.
- (b) Liquidated damage clause shall be applied if the work is not completed in time. It is the contractors responsibility to obtain the work completion certification from the Site Engineer
- (c) Any time extension necessary must be sought as soon as obstacle is faced, not later.
- (d) The institute undertakes to make payment with in 30 days of completion of the measurement and submission of bills. In case of delay there is a provision for payment of interest
- (e) In case of difference of opinion with site Engineer, please contact Engineer, EE (Civil), PIC (Civil Maintenance), Dean (PD) or Director.

10. Signature of REGISTRAR

\_\_\_\_\_  
REGISTRAR

To :

1. Contractor : M/S \_\_\_\_\_

Copy to :

1. Finance officer (To be sent along with certified invoice from the contractor)
2. Resident/user \_\_\_\_\_ with a request to extend cooperation to the contractor and site Engineer to ensure the quality maintenance. Resident/users are expected to assist through minor work such as watering of masonry repairs and assistance to the workmen. Please monitor the quality of work and give the certificate requested by the contractor. In case of any flaw in workmanship or materials used, please inform the Engineer in Charge during the work instead of waiting till the end.



**National Institute of Technology  
Rourkela**

**OFFICE OF THE EXECUTIVE ENGINEER (CIVIL)**

**Certificate of Quality from Resident/User for minor Civil Work**

1. Work order No : NITR/EC/WO/\_\_\_\_\_ date \_\_\_\_\_

2. Name of the Work : Maintenance of Quarter No. \_\_\_\_\_/ \_\_\_\_\_ Bldg

3. Name of the Contractor : \_\_\_\_\_

4. Estimated maximum cost : Rs. \_\_\_\_\_

[Any expenditure beyond this figure will be on the contractors Account]

5. Duration : \_\_\_\_\_ Month \_\_\_\_\_ Days

6. Name of the Occupant or User of Facility/ Resident : \_\_\_\_\_

Designation : \_\_\_\_\_ Department : \_\_\_\_\_

7. (Tick only one)

Certified that work specified above has been completed to my satisfaction in terms of specifications, speed and quality of work.

The Work specified above is defective on the following counts. Engineers in charge are requested to examine and make professional decision

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8. Signature of Occupant /User of the Facility/ Resident

Date :

\_\_\_\_\_  
Signature

To:

EE (Civil)

(Through Contractor)



**National Institute of Technology  
Rourkela**

**OFFICE OF THE EXECUTIVE ENGINEER (CIVIL)**

NO:NITR/ET/CM/

Date:

TO

Date:

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1. Complaint No : \_\_\_\_\_ Date : \_\_\_\_\_
2. Work Order No : \_\_\_\_\_ Date \_\_\_\_\_
3. Contractor : M/S \_\_\_\_\_

Dear Sir,

Please refer to the copy of the work order mentioned above where is you were requested to extend cooperation to the contractor doing civil maintenance work in your Office/ residence. The contractor has informed that although he has completed the work, you have not given him the requested certificate.

Kindly note that success of our maintenance effort depends on your support. You have complete choice of either writing “satisfactory” or stating why you are not satisfied . Please give the certificate as you think fit within a week of the date mentioned above, and send to this office either directly or through the contractor.

Thanking You.

Yours Faithfully

Sri. S.P.Mohapatra  
Executive Engineer (CIVIL)



**DEPARTMENT OF ESTATE MANAGEMENT  
NATIONAL INSTITUTE OF TECHNOLOGY  
ROURKELA-769008**

## SCHEDULE OF RATES (CIVIL) 2015-16

Sch. Sl.No	DSR Ref. No	Description Of Item	Unit	RATE
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### VOLUME-I

#### 2.0 EARTH WORK

1	2.1	Earthwork in surface excavation not exceeding 30Cm in depth but exceeding 1.5M in width as well as 10 Sq.M on Plan including disposal of excavated earth upto 50m and lift upto 1.5mtr, disposed soil to be levelled and neatly dressed:	100 Sq.M	3438.00
2	2.2	Earthwork in rough excavation banking excavated earth in layers not exceeding 20Cm in depth, breaking clods watering , rolling each layer with ½ tonne roller or wooden or steel rammers and rolling every third and top most layer with power roller of minimum 8tonne and dressing up in embankments for roads flood banks marginal banks and guide banks or filling up ground depressions lead upto 50mtr and lift upto 1.5M	Cum	261.00
3	2.6.1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means overareas (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including disposal of excavated earth lead upto 50m and lift upto 1.5m disposed earth to be levelled and neatly dressed (All kinds of Soil)	Cum	120.00
4	2.7.1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means overareas (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including disposal of excavated earth lead upto 50m and lift upto 1.5m disposed earth to be levelled and neatly dressed (Ordinary Rock)	Cum	215.00
5	2.8.1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including dressing of sides and ramming of bottoms including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50Mtr. (All kinds of Soil)	Cum	121.00
6	2.9.1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including dressing of sides and ramming of bottoms including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50Mtr. (Ordinary Rock)	Cum	230.00
7	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20Cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50M and lift upto 1.5M	Cum	76.00
8	2.27	Supplying and filling in plinth with river sand under floors including watering ramming consolidating and dressing complete.	Cum	619.00
9	2.28	Surface dressing of the ground including removing vegetation and in equalities not exceeding 15 Cm deep and disposal of rubbish , Lead upto 50M and lift upto 1.5M	100 Sq.M	849.00
10	2.31	Clearing jungle including uprooting of rank vegetation , Grass brush wood ,trees and sapling of girth upto 30Cm measured at a height of 1 Mtr above the ground leveland removal of rubbish upto a distance of 50M outside te periphery of the area cleared	100 Sq.M	438.00
11	2.32	Clearing grass and removal of the rubbish upto a distance of 50M outside the periphery of the area cleared.	100 Sq.M	225.00
12	2.35	Supplying chemical emulsion in sealed containers including delivery and ,diluting and injecting chemical emulsion for Post Constructional anti termite treatment		

13	2.35.1	Diluting and injecting chemical emulsion for POST-Constructional anti termite treatment Along external wall where the apron is not provided using chemical emulsion @ 7.5 Ltr/ Sq.M of the vertical surfaces of the substructure to a depth of 300mm including excavaation of channel along the wall & rodding etc complete <b>Chloropyriphos /Lindane emulsifiable concentrate of 20% with 1% concentration OR Imidaclopid 30.5 EC</b>	RM	75.00
14	2.35.3	Diluting and injecting chemical emulsion for POST-Constructional anti termite treatment Treatment of soil under existing floor using chemical emulsion @one liter per hole, 300 mm apart including drilling 12mm diameter holes and plugging with cement mortar 1:2 (1 Cement : 2 Sand) to match the existing floor <b>Chloropyriphos /Lindane emulsifiable concentrate of 20% with 1% concentration OR Imidaclopid 30.5 EC</b>	Sq.M	96.00
15	2.35.2	Diluting and injecting chemical emulsion for POST-Constructional anti termite treatment Along the external wall below concrete or masonry apron using chemical emulsion @2.25liter per linier metre including drilling and plugging holes etc. <b>Chloropyriphos /Lindane emulsifiable concentrate of 20% with 1% concentration OR Imidaclopid 30.5 EC</b>	RM	29.00
16	2.35.5	Diluting and injecting chemical emulsion for POST-Constructional anti termite treatment Treatment at points of contact of wood work by chemical emulsion chloropyriphos/ lindane or emidoclopoed (in oil or kerosene based solution) @0.5 liters per hole by drilling 6mm dia hole at downward angle of 45 degree at 150mm centre to centre and cealing the same. <b>Chloropyriphos /Lindane emulsifiable concentrate of 20% with 1% concentration OR Imidaclopid 30.5 EC</b>	RM	181.00
17		Diluting and injecting chemical emulsion for Pre-Constructional anti termite treatment Treatment of soil under floor over masonry/RCC portion as per specification and IS code including before filling sand and over all periphery wall and before plinth protection and before floor concreting etc complete using chemical emulsion @one liter per hole, 300 mm apart /7.5ltr per SQ.M including along the external wall/ internal wall all surface to be covered below PCC and alaround below concrete or masonry apron/ plinth protection etc complete. measurement to be taken per Sq.M of Plinth area of building only (All materials and labour including) <b>Chloropyriphos /Lindane emulsifiable concentrate of 20% with 1% concentration OR Imidaclopid 30.5 EC</b>	Sq.M	153.00
18	2.4&2.5	Deduct for not rolling and watering properly with power roller of minimum 8 tonnes for banking excavated earth in layes not exceeding 20 Cm in depth	Cum	13.90
19	2.7.3	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including dressing of sides and ramming of bottoms including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50Mtr. (Hard rock Blasting Prohibited)	Cum	534.00
20	2.26.1	Extra for excavation for every additional lift of 1.5mtr and part there of in excavation /banking excavated or stacked materials (All kinds of soil)	Cum	32.00
21	2.26.2	Extra for excavation for every additional lift of 1.5mtr and part there of in excavation /banking excavated or stacked materials (Ordinary or Hard rock)	Cum	57.00
22	2.33	Felling trees of the girth (measured at height of 1 mtr above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable materilas and disposal of unserviceable materials (Beyond 30 Cm upto and including120 Cm girth)	Each	60.00
23	2.4	Deduct for disposed soil not levelled and neatly dressed	Cum	23.00
24	2.24.1	Extra rates of quantities for works, executed : ( the extra percentage rate is applicable in respect of each item but limited to quantities of work executed in these difficult conditions )	Cum	24.20
25	2.24.2	In or under water and /or liquid mud, including pumping out water as required. (20%) Extra rates of quantities for works, executed : ( the extra percentage rate is applicable in respect of each item but limited to quantities of work executed in these difficult conditions ) In or under water and /or foul position, including pumping out water as required. (25%)	Cum	30.25

26		Dewatering at foul position for execution of work with electric operated 4000 ltr/hours capacity open well submersible pump complete as per direction of Engineer incharge (hourly basis) rate including all items (as per log book for pumping schedule)	per hour	105.00
27	1.0	Conveyance of Materials such as stone metal refuse,garbage, rubbish etc including labour for loading and unloading. Beyond initial lead. Complete as per direction of Engineer in charge		
a		Head load		
b		upto 50mtr	Cum	17.00
c		Beyond 50mtr and upto 100mtr	Cum	23.67
d		beyond 100mtr and upto 150mtr	Cum	35.00
e		truck load Upto 1km	Cum	71.00
f		truck load upto2 km	Cum	83.00
g		truck load upto 3 km	Cum	94.00
h		Truck load upto 4 Km	Cum	106.00
i		Truck load upto 5 KM	Cum	117.00

### 3.0 MORTAR

28	3.1	Cement Mortar 1:1 (1 Cement : 1 Sand)	Cum	7519.41
29	3.2	Cement Mortar 1:2 (1 Cement : 2Sand)	Cum	5320.08
30	3.3	Cement Mortar 1:3 (1 Cement : 3 Sand)	Cum	4221.02
31	3.4	Cement Mortar 1:4 (1 Cement : 4 Sand)	Cum	3336.82
32	3.5	Cement Mortar 1:5 (1 Cement : 5 Sand)	Cum	2860.71
33	3.6	Cement Mortar 1:6 (1 Cement : 6 Sand)	Cum	2452.62
34	3.16	White Cement Mortar 1:3 (1 Cement : 3 Sand)	Cum	10660.68

### 4.0 CONCRETE WORK

#### All Work Upto Plinth level

35	4.1.2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:1½:3 (1 Cement : 1½ sand:3 Coarse Aggregate 20mm Down)	Cum	5716.00
36	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:2:4 (1 Cement : 2 sand:4 Coarse Aggregate 20mm Down)	Cum	5159.00
37	4.1.4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:2:4 (1 Cement : 2 sand:4 Coarse Aggregate 40mm Down)	Cum	5078.00
38	4.1.6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:3:6 (1 Cement : 3 sand:6 Coarse Aggregate 40mm Down)	Cum	4360.00
39	4.1.8	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:4:8 (1 Cement : 4 sand:8 Coarse Aggregate 40mm Down)	Cum	3961.00
40	4.1.11	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:5:10 (1 Cement : 5 sand:10 Coarse Aggregate 40mm Down)	Cum	3642.00
	4.2	<b>ABOVE PLINTH LEVEL UPTO Vth Floor Level</b>		
41	4.2.2	Providing and laying cement concrete in retaining walls return walls (any thickness) including attached pilasters Columns Piers Abutment Pillars Post Buttress string or lacing courses Parapets Coping bed block anchor blocks plain window sills fillets etc upto floor Five Level excluding the cost of centering and shuttering and finishing <b>CC 1:1½:3 (1 Cement:1½ Coarse Sand:3 Coarse Aggregate 20mm Down)</b>	Cum	6235.00
42	4.2.3	Providing and laying cement concrete in retaining walls return walls (any thickness) including attached pilasters Columns Piers Abutment Pillars Post Buttress string or lacing courses Parapets Coping bed block anchor blocks plain window sills fillets etc upto floor Five Level excluding the cost of centering and shuttering and finishing <b>CC 1:2:4 (1 Cement:2 Coarse Sand:4 Coarse Aggregate 20mm Down)</b>	Cum	5677.00
43	4.1	Providing and laying damp proof course 40mm thick with cement concrete 1:2:4 (1 cement:2 sand:4 coarse aggregate 12.5mm nominal size)	Sq.M	239.00



44	4.11	Providing and laying damp proof course 50mm thick with cement concrete 1:2:4 (1 cement:2 sand:4 coarse aggregate 12.5mm nominal size)	Sq.M	292.00
45		Providing and laying damp proof course 25mm thick with cement concrete 1:2:4 (1 cement:2 sand:4 coarse aggregate 12.5mm nominal size)	Sq.M	161.00
46	4.13	Applying a coat of residual petroleum bitumen of penetration of 80/100 of approved quality using 1.7kg per Sq.M on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in keroseneoil.	Sq.M	138.00
47	4.12	Extra for Providing and mixing water proofing materials in cement concrete work @ 1Kg per 50kg Of cement	Per bag of cement	44.00
48	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3sand:6 Coarse aggregate) over 75mm thick bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	Sq.M	352.00

## 5.0 REINFORCEMENT CEMENT CONCRETE

### UPTO PLINTH LEVEL

49	5.1.2	Providing and laying in position Reinforced cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:1½:3 (1 Cement : 1½ sand:3 Coarse Aggregate 20mm Down) complete in all respect as per direction of Engineer in charge Upto plinth level	Cum	5890.00
50	5.1.3	Providing and laying in position Reinforced cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:2:4 (1 Cement : 2 sand:4 Coarse Aggregate 20mm Down) complete in all respect as per direction of Engineer in charge Upto plinth level	Cum	5333.00
51		Providing and laying in position Reinforced cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:1:2 (1 Cement : 1 sand:2 Coarse Aggregate 20mm Down) mix design M25 (By volume) complete as per direction of Engineer in charge complete Upto plinth	Cum	6193.00
52		Providing and laying in position Reinforced cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:1.25:2.5 (1 Cement : 1.25 sand:2.5 Coarse Aggregate 20mm Down) mix design M25 upto plinth level for all work including cost of labour and materials excluding cost of Shuttering and centering and reinforcement complete as per direction of Engineer in charge	Cum	6042.00
53	5.37	Providing and laying in position machine batched and machine mixed design mix ready mixed cement concrete for Reinforced cement concrete work, using cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Note : 1 ) Excess / less cement used than specified in this item is payable / recoverable separately. <b>All works upto plinth level : M-25 cement 300 kg/cum (1:1.6:3.3 &amp; Wc ratio 0.42)</b>	Cum	6267.00
		<b>ABOVE PLINTH LEVEL UPTO Vth Floor Level</b>		
54		Reinforced cement concrete work in walls pillar (any thickness) including attached pilasters, buttresses, plinth, and string courses, fillet, column, pillar, pier, abutment, posts, struts, slab etc upto Floor five level excluding cost of centring shuttering finishing and reinforcement complete as per direction of Engineer in charge Above plinth. upto Vth floor level <b>RCC 1:1:2 (1 cement: 1 coarse sand:2 graded sone aggregate 20mm nominal size)</b>	Cum	8167.00
55	5.2.2	Providing and laying Reinforced cement concrete in retaining walls return walls (any thickness) including attached pilasters Columns Piers Abutment Pillars Post Buttress string or lacing courses Parapets Coping, slab beam, staircase, bed block anchor blocks plain window sills fillets etc upto floor Five Level excluding the cost of centering and shuttering and finishing complete in all respect as per direction of Engineer in charge above plinth upto Vth floor level <b>CC 1:1½:3 (1 Cement:1½ Coarse Sand:3 Coarse Aggregate 20mm Down)</b>	Cum	6489.00

56	5.2.4	Providing and laying Reinforced cement concrete in retaining walls return walls (any thickness) including attached pilasters Columns Piers Abutment Pillars Post Buttress string or lacing courses Parapets Coping bed block anchor blocks plain window sills fillets etc upto floor Five Level excluding the cost of centering and shuttering and finishing complete in all respect as per direction of Engineer in charge upto Vth floor level		
		<b>CC 1:1½:3 (1 Cement:1½ Coarse Sand:3 Coarse Aggregate 20mm Down)</b>	Cum	6489.00
57	5.3	Providing and laying Reinforced cement concrete in beams suspended floors roofs having slope upto 15° landings balconies shelves chajjas lintels bands plain window sills staircases and spiral stairs upto v th floor level excluding cost of centering shuttering finishing and reinforcement with CC 1:1½:3 complete in all respect as per direction of Engineer in charge above plinth level upto Vth floor level		
		<b>CC 1:1½:3 (1 Cement:1½ Coarse Sand:3 Coarse Aggregate 20mm Down)</b>	Cum	6426.00
58	5.5	Providing and laying Reinforced cement concrete in arches arch rib domes vaults shells foaldded plate roofs having slope more than 15° upto v th floor level excluding cost of centering shuttering finishing and reinforcement with CC 1:1.5:3 complete in all respect as per direction of Engineer in charge above plinth level		
		<b>CC 1:1½:3 (1 Cement:1½ Coarse Sand:3 Coarse Aggregate 20mm Down)</b>	Cum	6238.00
59	5.8	Providing and laying Reinforced cement concrete in vertical and horizontal fins individually forming box louvers facias and eaves board upto v th floor level excluding cost of centering shuttering finishing and reinforcement with CC 1:1½:3 complete in all respect as per direction of Engineer in charge above plinth level		
		<b>CC 1:1½:3 (1 Cement:1½ Coarse Sand:3 Coarse Aggregate 20mm Down)</b>	Cum	6237.00
60		Extra for concreting in Super structure above floor V level for each four floors or part thereof complete as per direction of Engineer in Charge	Cum	391.00
61		Providing and laying in position machine batched and machine mixed design mix ready mixed cement concrete for Reinforced cement concrete work, using cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Note : 1 ) Excess / less cement used than specified in this item is payable / recoverable separately.		
		<b>All works upto V th floor level : M-25 cement 330 kg/cum (1:1.6:3.3 &amp; Wcratio 0.42)</b>	Cum	6507.00
62		Add or deduct extra or less cement in the items of design mix over and above the specified cement content there in (Note Excess/less cement over the specified cement content used payable/ recoverable separately.	Quintal	80.00
63		Reinforced cement concrete work in walls pillar (any thickness) including attached pilasters, buttresses, plinth, and string courses, fillet, column, pillar, pier, abutment, posts, struts, slab etc upto Floor five level excluding cost of centring shuttering finishing and reinforcement complete as per direction of Engineer in charge		
		<b>RCC 1:1.25:2.5 (1 cement: 1.25 coarse sand:2.5 graded sone aggregate 20mm nominal size)</b>	Cum	7329.00
	5.9	<b>SHUTTERING &amp; CENTERING</b>		
		Centering and shuttering including strutting propping etc and removal of forms for:		
64	5.9.1	Foundations footing bases of column etc for mass concrete	Sq.M	164.00
65	5.9.2	walls (Any thickness) including attached pilaster buttresses plinth and string	Sq.M	275.00
66	5.9.3	Suspended floors roofs landings balconies and access platform	Sq.M	308.00
67	5.9.5	Lintels beams plinth beams girders bressumers and cantilevers.	Sq.M	260.00
68	5.9.6	Columns Pillars piers Abutment Posts and strutts	Sq.M	363.00
69	5.9.7	Stair (Excluding landing except spiral Staircases	Sq.M	571.00
70	5.9.8	Spiral Stair cases (including landing)	Sq.M	428.00
71	5.9.14	Extra for shuttering in circular work	Sq.M	20%
72	5.9.19	Weather shades, Chajja, Corbels etc including edges	Sq.M	696.00

### PLY SHUTTERING

centering and shuttering including strutting proping etc and removal of form work for:

73	5.9.20	suspended floors, roofs, landing balconies and access platform with water proof ply of 12mm thick	Sq.M	521.00
74	5.9.21	Lintels beams plinth beams girders bressumers and cantilevers.with water proof ply of 12mm thick	Sq.M	496.00
75	5.11	Extra for additional height in centering and shuttering where ever required with adequate bracing ,propping etc. including cost of de shuttering and decentering at all levels over height of 3.5m for every additional height of 1mtr or part thereof (Plan area to be measured)		
76	5.11.1	suspended floors, roofs, landing balconies and access platform with water proof ply of 12mm thick	Sq.M	169.00
77	5.12	Providing , hoisting and fixing upto floor five level precast reinforced cement concrete work in string course, bands, coupings, bed plates anchor blocks, plain window sills, lintel not exceeding 1.5m span and the like including the cost of required centering shuttering , finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 sand ) on exposed surfaces complete but excluding the cost of reinforcement with 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size).	Cum	9151.00
78		Providing precast cement concrete slab 1:2:4 (1 cement : 2sand: 4 Coarse aggregate 6mm nominal size ) reinforced with 6mm dia mild steel including cenetring abd shuttering roughening and cleaning fixing and finishing in cement mortar 1:3(1 cement: 3 sand) etc complete excluding plastering of jambs sills and soffits.		
78a		50mm thick precast slab	Sq.M	952.00
78b		25mm thick precast slab	Sq.M	687.00
79	5.22	Providing and placing reinforcement for R.C.C. work including straightining cutting bending placing in position and binding allcomplete. Upto plinth level and above plinth level		
	5.22.6	Thermo Mechanically Treated Bars	Kg	77.00
80	5.24	Extra for rendering smooth the top of suspended floors, landing and stair cases (treads and risers ) with cement mortar 1:2 (1 cement: 2 Sand) including floating coat of neat cement and protecting the surface with alayer of 7.5Cm of earth laid over 15mm fine sand in case of suspended floors and brick laid in mud mortar in case of landing and steps including subsequent removal and cleaning of the same.	Sq.M	75.00
81	5.29	Providing and fixing of sheet covering over expansion joints with iron screws as per design to match the colour /shade of wall tretment		
81a	5.29.1.1	Non asbestos fibre cement board 6mm thick as per IS 14862 150mm wide	RM	106.00
81b	5.29.1.2	Non asbestos fibre cement board 6mm thick as per IS 14862 200mm wide	RM	142.00
82	5.29.2	Providing and fixing of sheet covering over expansion joints with iron screws as per design to match the colour /shade of wall tretment		
82a	5.29.2.1	Aluminum fluted strips 3.15mm thick 150mm wide	RM	228.00
82b	5.29.2.2	Aluminum fluted strips 3.15mm thick 200mm wide	RM	303.00
83		Extra for shuttering not removed from structure due to cavity or foul position complete as per direction of Engineer in charge with 12mm ply (after use of 10 times )	Sq.M	84.00

## 6.0 BRICK WORK

### All Work Upto Plinth level

84	6.1.1	Brick work with F.P.S bricks of class designation 75 in foundation and plinth in cement mortar 1:4 (1cement: 4 Sand) complete in all respect as per direction of Engineer in charge	Cum	3923.00
85	6.2.2	Brick work with F.P.S bricks of class designation 75 in foundation and plinth in cement mortar 1:6 (1cement: 6 Sand) complete in all respect as per direction of Engineer in charge	Cum	3664.00
86	6.3.3	Brick work with F.P.S bricks of class designation 75 in foundation and plinth in cement mortar 1:3 (1cement: 3 Sand) complete in all respect as per direction of Engineer in charge	Cum	4182.00
87	6.12	Half brick masonry with FPS bricks of class designation 75 in foundation and plinthin Cement mortar 1:3 (1 cement: 3 sand) complete in all respect as per direction of Engineer in charge	Sq.M	492.00
88	6.12.2	Half brick masonry with FPS bricks of class designation 75 in foundation and plinthin Cement mortar 1:4 (1 cement: 4 sand) complete in all respect as per direction of Engineer in charge	Sq.M	463.00

89		Brick work with Fly ash cement bricks of class designation 75 in foundation and plinth in cement mortar 1:4 (1cement: 4 Sand) complete in all respect as per direction of Engineer in charge	Cum	3923.00
90		Brick work with Fly ash cement bricks of class designation 75 in foundation and plinth in cement mortar 1:6 (1cement: 6 Sand) complete in all respect as per direction of Engineer in charge	Cum	3664.00
91		Brick work with Flyash cement bricks of class designation 75 in foundation and plinth in cement mortar 1:3 (1cement: 3 Sand) complete in all respect as per direction of Engineer in charge	Cum	4182.00
92		Half brick masonry with Flyash cement bricks of class designation 75 in foundation and plinth in Cement mortar 1:3 (1 cement: 3 sand) complete in all respect as per direction of Engineer in charge	Sq.M	492.00
93		Half brick masonry with Flyash cement bricks of class designation 75 in foundation and plinth in Cement mortar 1:4 (1 cement: 4 sand) complete in all respect as per direction of Engineer in charge	Sq.M	463.00
	<b>6.4</b>	<b>Above Plinth Level</b>		
94	<b>6.4.1</b>	Brick work with F.P.S bricks of class designation 75 in Super structure above plinth level upto V floor level in all shapes and size in Cement mortar 1:4 (1cement: 4 sand) complete in all respect as per direction of Engineer in charge	Cum	4456.00
95	<b>6.4.2</b>	Brick work with F.P.S bricks of class designation 75 in Super structure above plinth level upto V floor level in all shapes and size in Cement mortar 1:6 (1cement: 6 sand) complete in all respect as per direction of Engineer in charge	Cum	4184.00
96		Brick work with F.P.S bricks of class designation 75 in Super structure above plinth level upto V floor level in all shapes and size in Cement mortar 1:3 (1cement: 3 sand) complete in all respect as per direction of Engineer in charge	Cum	4715.00
97	<b>6.13.1</b>	Half brick masonry with FPS bricks of class designation 75 in Super structure above plinth level upto V floor level in Cement mortar 1:3 (1 cement: 3 sand) complete in all respect as per direction of Engineer in charge	Sq.M	549.00
98	<b>6.13.2</b>	Half brick masonry with FPS bricks of class designation 75 in Super structure above plinth level upto V floor level in Cement mortar 1:4 (1 cement: 4 sand) complete in all respect as per direction of Engineer in charge	Sq.M	520.00
99	<b>6.15</b>	Extra for providing and placing in position 2 Nos 6mm dia M.S.Bars at every third layer of half brick work (With F.P.S bricks) complete in all respect as per direction of Engineer in charge	Sq.M	89.00
100	<b>6.5</b>	Extra for brick work in superstructure above floor V level for each four floors or part thereof by Mechanical mean by lifting materials by mobile crane. complete in all respect as per direction of Engineer in charge	Cum	316.00
101	<b>6.14</b>	Extra for half brick work in superstructure above floor V level for each four floors or part thereof by Mechanical mean by lifting materials by mobile crane. complete in all respect as per direction of Engineer in charge	Sq.M	28.00
102		Brick on edging 7Cm wide 11.4 Cm deep to plinth protection with bricks of class designation 75 including grouting with cement mortar 1:4 (1 Cement: 4 Sand) complete in all respect as per direction of Engineer in charge	Sq.M	427.00
103		Brick work with Flyash cement bricks of class designation 75 in Super structure above plinth level upto V floor level in all shapes and size in Cement mortar 1:4 (1cement: 4 sand) complete in all respect as per direction of Engineer in charge	Cum	4456.00
104		Brick work with Flyash cement bricks of class designation 75 in Super structure above plinth level upto V floor level in all shapes and size in Cement mortar 1:6 (1cement: 6 sand) complete in all respect as per direction of Engineer in charge	Cum	4197.00
105		Brick work with Flyash cement bricks of class designation 75 in Super structure above plinth level upto V floor level in all shapes and size in Cement mortar 1:3 (1cement: 3 sand) complete in all respect as per direction of Engineer in charge	Cum	4715.00
106		Half brick masonry with Flyash cement bricks of class designation 75 in superstructure and above plinth level upto V th floorlevel in Cement mortar 1:3 (1 cement: 3 sand) complete in all respect as per direction of Engineer in charge	Sq.M	549.00
107		Half brick masonry with Flyash cement bricks of class designation 75 in superstructure and above plinth level upto V th floorlevel in Cement mortar 1:4 (1 cement: 4 sand) complete in all respect as per direction of Engineer in charge	Sq.M	520.00

108		Extra for providing and placing in position 1 Nos 8mm dia TMT Bars at every third layer of half brick work (With F.P.S bricks) complete in all respect as per direction of Engineer in charge	Sq.M	80.00
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## 7 STONE WORK

109	7.1.1	Random rubble stone masonry with hard stone in foundation and plinth including leveling up with cement concrete 1:6:12 (1 cement: 6 sand:12 coarse aggregate) at plinth level <b>cement mortar 1:6 (1cement: 6 Coarse sand)</b>	Cum	3698.00
110		Random rubble stone masonry with hard stone in foundation and plinth including leveling up with cement concrete 1:6:12 (1 cement: 6 sand:12 coarse aggregate) at plinth level <b>cement mortar 1:4 (1cement: 4 Coarse sand)</b>	Cum	4040.00
111	7.2	Extra for random rubble masonry with hard stone in superstructure above plinth level and upto floor five level including levelling up with cement concrete 1:6:12 (1 cement: 6 sand:12 coarse aggregate) at window sills ceiling level and the like	Cum	629.00
112	7.37	Stone work (machine cut edges) for wall lining upto 10m tr height etc. (vener work) backing filled with grout of 12mm thick cement mortar 1:3 (1 cement: 3 sand) and jointed with cement mortar 1:2 (1 cement: 2 stone dust) including rubbing and polishing complete (to be secured to the backing by means of cramps which shall be paid for separately)		
	7.37.1.1	<b>Kota stone slabs exposed face dressed and rubbed. 25mm thick</b>	Sq.M	1535.00
113	7.38.1.1	Stone tile work for wall lining upto 10m heightwith special adhesive over 12mm thick bed of cement mortar 1:3 (1 cement: 3 sand) including pointing in white cement with an admixture of pigment to match the stone shade. (EXTERIOR) <b>Grinite stone of any colour 8mm thick (mirror polishedand machine cut edge)</b>	Sq.M	2378.00
114	7.38.1.2	Stone tile work for wall lining upto 10m heightwith special adhesive over 12mm thick bed of cement mortar 1:3 (1 cement: 3 sand) including pointing in white cement with an admixture of pigment to match the stone shade. (EXTERIOR) <b>Rajnagar plain white marble/ udipur green marble/ zebra black marble 8mm thick mirror polished and machine cut edge</b>	Sq.M	1446.00
115	7.39	Extra for stone work for wall lining on exterior walls of height more than 10m from ground level for every additional height of 3m and part there of	Sq.M	87.00

## 8.0 MARBLE WORK

116	8.1	Marble work gang saw cut (polished and machine cut) of thickness 18mm for wall lining (vener work) in cement mortar 1:3 (1 cement: 3 sand) including pointing with white cement mortar 1:3 (1 white cement:3 marble dust) with an admixture of pigment to match the marble sahde (to be secured to the backing means of cramp which shall be paid separately)		
116a	8.1.1.1	<b>Rajnagar plain white marble/ udipur green marble/ zebra black marble mirror polished and machine cut edge area of slab Upto 0.5Sq.M</b>	Sq.M	3198.00
116b	8.1.1.2	<b>Rajnagar plain white marble/ udipur green marble/ zebra black marble mirror polished and machine cut edge area of slab over 0.5Sq.M</b>	Sq.M	3191.00
117	8.2	Providing and fixing of 18mm thick gang saw cut mirror polished (pre moulded and pre polished ) machine cut for kitchen platform vanity counters window sill facials and similar location of trequired size of approved shade colour and texture laid over 20mm thick base cement mortar 1:4 with joints treated with white cement mixed with matching pigment epoxy touch ups including rubbingcuring moulding and polishing to edges to give high gloss finish etc complete at all levels		
117a	8.2.1.1	<b>Rajnagar plain white marble/ udipur green marble/ zebra black marble mirror polished and machine cut edge area of slab upto 0.5Sq.M</b>	Sq.M	3019.00
117b	8.2.1.2	<b>Rajnagar plain white marble/ udipur green marble/ zebra black marble mirror polished and machine cut edge area of slab over 0.5Sq.M</b>	Sq.M	3019.00

118	8.2.2	Providing and fixing of 18mm thick gang saw cut mirror polished (pre moulded and pre polished ) machine cut for kitchen platform vanity counters window sill facials and similar location of trequired size of approved shade colour and texture laid over 20mm thick base cement mortar 1:4 with joints treated with white cement mixed with matching pigment epoxy touch ups including rubbingcuring moulding and polishing to edges to give high gloss finish etc complete at all levels		
118a	8.2.2.1	<b>Granite of any colourmirror polished and machine cut edge area of slab upto 0.5Sq.M</b>	Sq.M	3478.00
118b	8.2.2.2	<b>Grinite of any colour mirror polished and machine cut edge area of slab over 0.5Sq.M</b>	Sq.M	3383.00
119	8.3	Extra for providinh edge moulding to 18mm thick marble stone counters vanities etc including machine polishing to edge to give high gloss finish etc complete as per direction of Engineer in Charge		
119a	8.3.1	<b>Marble work</b>	RM	149.00
119b	8.3.2	<b>Grinite work</b>	RM	185.00
120	8.5	Extra for providing opening of required size and shape for wash basin/kitchen sink in kitchen platform vanity counters and similar location in marble /grinite work including necessary holes for pillar taps including rubbing and polioishing of cut edges etc complete	Each	303.00
121	8.6	Mirror polishing on marble work /grinite work stone work where ever required give high gkloss finish complete wall surface	Sq.M	168.00
122	8.9	Stone tile (polished) work for wall lining over 12mm thick bed of cement mortar 1:3 (1 cement: 3 sand) and cement slurry including pointing in white cement with an admixture of pigment to match the stone shade. (Interior)		
	8.9.1.1	<b>Grinite stone of any colour 8mm thick (mirror polishedand machine cut edge)</b>	Sq.M	2581.00
123	8.9.1.2	Stone tile (polished) work for wall lining over 12mm thick bed of cement mortar 1:3 (1 cement: 3 sand) and cement slurry including pointing in white cement with an admixture of pigment to match the stone shade. (Interior) <b>Raj nagar white marble/udipur green marble/zebra black marble 8mm thick</b>	Sq.M	1649.00
124	8.10	Providing and fixing 18mm thick stone slab table rubbed , edges rounded and polished of size 75x50and 1.8cm thick in urinal partition by cutting chases of appropriatewidth with chase cutter and embedding the stone in chase with epoxy grout or with cement concrete 1:2:4 (1 cement:2sand:4 coarse aggregate 6mm nominal size) as per direction of EngineerinCharge		
	8.10.1	<b>White agaria marble stone</b>	Sq.M	2228.00
125		Providing and fixing 18mm thick stone slab table rubbed , edges rounded and polished of size 75x50CM deep and 1.8cm thick fixed in urinal partition by cutting chases of appropriatewidth with chase cutter and embedding the stone in chase with epoxy grout or with cement concrete 1:2:4 (1 cement:2sand:4 coarse aggregate 6mm nominal size) as per direction of EngineerinCharge		
	8.10.2	<b>Grinite stone of approved shade</b>	Sq.M	3077.00
126		Providing and fixing of cramps of required size and shape in RCC/CC backing with cement mortar 1:2 (1 cement : 2 sand) including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately) Gunmetal cramp	Each	376.00
127	8.7.2	Providing and fixing of cramps of required size and shape in RCC/CC backing with cement mortar 1:2 (1 cement : 2 sand) including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately) Stainless steel cramps	Each	149.00
128	8.7.1	Providing and fixing adjustable stainless steel cramps of approved quality required shape and size , adjustable with stainless steel nuts and bolts and washer (total weight not less than 260 Gm) for dry stone cladding fixed on frame work or CC/RCC/ brick work at suitable loacation including making necessary recesses in stone slabs drilling required holes etc complete as per direction of Engineer in charge Stainless steel cramps	Each	212.00
129		Providing and fixing of fasteners of specified sizes with necessary plastic sleeves and galvanised MS screw including drilling holes in masonry works /CC/RCC and making good etc complete.	Each	81.00

130	7.40	Providing and fixing of dry cladding upto 10mtr height with 30mm thick gangshaw cut stones with (machine cut edges) of uniform colour and size up to 1mx1m fixed to the structural steel frame work and/or with the help of cramps pins etc and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer in charge (Steel frame work/ SS cramps and pins etc shall be paid separately) RED SAND STONE/ WHITE/PINK SAND STONE	Sq.M	2107.00
131	7.39	Extra for stone work for wall lining on exterior walls of height more than 10m from ground level for every additional height of 3m or part there of. RED SAND STONE/ WHITE/PINK SAND STONE	Sq.M	67.00
132		Extra for Providing Marble /grinite and tile in designer strip not more than 100mm width as per architects direction	RM	73.00

## 9.0 WOOD WORK and PVC WORK

133	9.1	Providing wood work in framed of doors Windows, clearstorey windows and other frames , wrought framed and fixed in position:		
	9.1.1	<b>Second class teak wood</b>	Cum	120176.00
134		Providing wood work in framed of doors Windows, clearstorey windows and other frames , wrought framed and fixed in position:		
134a	9.1.2	<b>Sal Wood</b>	Cum	65815.00
134b		<b>Pia sal wood</b>	Cum	108660.00
135	9.1.3	Providing wood work in fraaed of doors and windows, clearstorey windows and other frames , wroughtframed and fixed in position <b>Kiln seasoned chemically treated hollock wood.</b>	Cum	55044.00
136	9.5.1	Providing and fixig panelled or pannelled and glazed shutters for doors and windows and clearstorey windows including ISI marked black enamelled M.S butt hinges with necessary screws		
	9.5.1.1	<b>Second class Teak Wood (35mm thick shutters)</b>	Sq.M	2988.00
137	9.5.1	Providing and fixig panelled or pannelled and glazed shutters for doors and windows and clearstorey windows including ISI marked black enamelled M.S butt hinges with necessary screws excluding glass panelling which will be paid separately		
	9.5.1.2	<b>Second class Teak Wood (30mm thick shutters)</b>	Sq.M	2643.00
138	9.5.2	Providing and fixig panelled or pannelled and glazed shutters for doors and windows and clearstorey windows including ISI marked black enamelled M.S butt hinges with necessary screws excluding glass panelling which will be paid separately		
	9.5.2.1	<b>Kiln seasoned and chemically treated hollock wood (35mm thick shutters)</b>	Sq.M	1528.00
139		Providing and fixig panelled or pannelled and glazed shutters for doors and windows and clearstorey windows including ISI marked black enamelled M.S butt hinges with necessary screws		
	9.5.2.2	<b>Kiln seasoned and chemically treated hollock wood (30mm thick shutters)</b>	Sq.M	1385.00
140	9.6	Providing and fixing 35mm thick factory made laminated veneer lumber door shutter conforming to IS :14616 and TADS 15:2001 (Part B) including ISI marked blackenamelled butt hinges with necessary screws as per direction of Engineer in Charge and panelling with panels of :		
	9.6.2	<b>12mm thick prelaminated (with particle board decorative lamination on both sides ) grade-1, medium density flat pressed, three layer particle board FPT-I or graded wood particle board FPT-1, conforming to IS 3087 bonded with BWP type synthetic resin adhesive as per IS 848 and prelamination conforming to IS 12823 grade-1 type -II marked.</b>	Sq.M	4105.00
141	9.7	providing and fixing of panels for panelling oe panelling and glazing in panelled or panelled and glazed shutters for doors , windows and clearstorey windows (area of opening for panell inserts excluding portion inside grooves or rebates to be measured) panelling for panelled or panelled and glazed shutters 25mm to 40mm thick:		
	9.7.1	<b>Second class Teak wood</b>	Sq.M	2427.00
142	9.7.2	providing and fixing of panels for panelling oe panelling and glazing in panelled or panelled and glazed shutters for doors , windows and clearstorey windows (area of opening for panell inserts excluding portion inside grooves or rebates to be measured) panelling for panelled or panelled and glazed shutters 25mm to 40mm thick: <b>Kiln seasoned and chemically treated hollock wood</b>	Sq.M	1274.00



143	9.9.1.1	Providing and fixing glazed shutters for doors and windows and clearstorey windows using 4mm thick float glass panes including ISI marked black enamelled M.S butt hinges with necessary screws <b>Second class Teak Wood (35mm thick shutters)</b>	Sq.M	3758.00
144	9.9.1.2	Providing and fixing glazed shutters for doors and windows and clearstorey windows using 4mm thick float glass panes including ISI marked black enamelled M.S butt hinges with necessary screws <b>Second class Teak Wood (30mm thick shutters)</b>	Sq.M	3364.00
145	9.9.2	Providing and fixing glazed shutters for doors and windows and clearstorey windows using 4mm thick float glass panes including ISI marked black enamelled M.S butt hinges with necessary screws		
	9.9.2.1	<b>Kiln seasoned and chemically treated hollock wood (35mm thick)</b>	Sq.M	2097.00
146		Providing and fixing glazed shutters for doors and windows and clearstorey windows using 4mm thick float glass panes including ISI marked black enamelled M.S butt hinges with necessary screws		
	9.9.2.2	<b>Kiln seasoned and chemically treated hollock wood (30mm thick)</b>	Sq.M	1933.00
147	9.10	Providing and fixing of factory made laminated veneer lumber glazed shutter conforming to IS 14616 and TADS 15:2001(Part-B) using 4mm thick float glass panes for doors , windows,and clearstorey windows including ISS marked black enamelled M.S.butt hinges with necessary screws as per direction of Engineerin Charge.		
	9.10.1	<b>30mm thick Shuttters</b>	Sq.M	2488.00
148	9.11	Extra for providing heavy sheet float glass panes of ordinary float glass in glazed doors , Windows and clear strey windowshutters (area of opening of glass panes excluding portion inside rebate shall be measured)		
	9.11.1	<b>5.5mm thick instead of 4mm thick float glass</b>	Sq.M	34.00
149	9.12	Deduct for providing frosted glass panes 4mm thick instead of ordinary float glass 4mm thick in glazed doors , Windows and clear strey windowshutters (area of opening of glass panes excluding portion inside rebate shall be measured)	Sq.M	-5.00
150	9.13	Deduct for providing Pin headed glass panes 4mm thick instead of ordinary float glass 4mm thick in glazed doors , Windows and clear strey windowshutters (area of opening of glass panes excluding portion inside rebate shall be measured)	Sq.M	-5.00
151	9.16.1	Providing and fixing of 25mm thick shutters for Cup board etc: panelled or panelled & glazed shutters		
	9.16.1.1	<b>Second class Teak Wood including ISI marked anodised aluminium butt hinges with necessary screws</b>	Sq.M	3023.00
152	9.16.2	Providing and fixing of 25mm thick shutters for Cup board etc: glazed shutters		
	9.16.2.1	<b>Second class Teak Wood including ISI marked anodised aluminium butt hinges with necessary screws</b>	Sq.M	3038.00
153	9.18	Providing and fixing of pre laminated flat pressed 3 layer (medium density) particle board or graded particle board IS 3087 marked with one side decorative and other side balancing lamination grade-I Type-II exterior garde IS:12823 marked in shelves with screw and fittings wherever required edges to be painted with polyurethane primer (fitting s to be paid separately)		
	9.18.2	<b>25mm thick</b>	Sq.M	3611.00
154	9.2	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters		
	9.20.1	<b>35mm thick includig ISI marked stainless steel butt hinges with necessary screws.</b>	Sq.M	4139.00
155	9.20.2	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters		
		<b>30mm thick includig ISI marked stainless steel butt hinges with necessary screws.</b>	Sq.M	3787.00



156	9.21	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) Non-decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters		
	9.21.1	<b>35mm thick includig ISI marked stainless steel butt hinges with necessary screws.</b>	Sq.M	4022.00
157	9.21.2	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) Non-decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters		
		<b>30mm thick includig ISI marked stainless steel butt hinges with necessary screws.</b>	Sq.M	3318.00
158	9.20.3	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters		
		<b>25mm thick (for cupboard) including ISI marked nickel plated bright finished M.S piano hinges IS :3818 marked with necessary screws.</b>	Sq.M	3248.00
159	9.21.3	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) Non-decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters		
		<b>25mm thick (for cupboard) including ISI marked nickel plated bright finished M.S piano hinges IS :3818 marked with necessary screws.</b>	Sq.M	3248.00
160	9.23	Extra for providing lipping with 2nd class teak wood battens 25mm minimumu depth on all edges of shutters (over all area of the door shutter to be measuered ) flush door decorative and non decorative type .....	RM	352.00
161	9.32	Providing 50x50x50mm 2nd class teak wood plugs including cutting brick work and fixing in cement mortar 1:3 (1 cement: 3 sand) and making the wall.	Each	22.00
162	9.33	Providing and fixing of expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S screw including drilling holes in masonry work/ CC/ RCC and making good the walls etc complete		
	9.33.3	<b>40mm long</b>	Each	46.00
163	9.35.2	Providing and fixing in wall lining/ panelling flat pressed three layer (Medium density) BWR particle board or graded wood prelaminated one side decorative lamination on other side balancing lamination grade-I type II IS 12823 marked including priming coat on unexposed surface, with necessary fixing arrangement and screws etc. complete:		
		<b>18mm thick</b>	Sq.M	1480.00
164		Providing and fixing of prelaminated BWR board with (one side decorative and other side balancing lamination) flat pressed, 3 layers or graded particle board (medium density) grade-I Type II IS 12823 marked with necessary fixing arrangement and screws including drilling necessary holes for rawl plug etc. and priming coat on exposed surface complete:		
		<b>18mm thick</b>	Sq.M	1685.00
165	9.40	Providing and fixing woden moulded beading to door and window frame with iron scres , plugand priming coat on exposed surface etc complete		
	9.40.1.1	<b>2nd Class teak wood 50x12mm</b>	RM	121.00
166	9.40.1.2	Providing and fixing woden moulded beading to door and window frame with iron scres , plugand priming coat on exposed surface etc complete		
	9.42	<b>2nd Class teak wood 50x20mm</b>	RM	169.00
167		Providing and fixing of 18mm thick 150mm wide pelmet of flat pressed m layer garded wood particle board medium density grade -I IS 3087 marked including top cover of 6mm commercial ply wood conforming to IS 303 BWR garde , nickel plated M.S pipe 20mm dia (heavy type) curtain rod with nickel plated brackets including fixing with 25x3 M.S flat 10 Cm long and rawl plugs 50mm long (designation 10 Nos) etc complete.	RM	446.00
168	9.46.2	Providing and fixing of curtain rods of 1.25mm thick chromium plated brass pipe with two chromium plated brass brackets fixed with CP brass screws and wooden plugs etc whenever necessary complete:		
		<b>20mm dia</b>	RM	823.00

169	9.47	Providing and fixing of curtain rods of 1.25mm thick chromium plated MS pipe with two chromium plated MS brackets fixed with CP brass screws and wooden plugs etc whenever necessary complete:		
	9.47.1	<b>20mm dia (heavy type)</b>	RM	381.00
170	9.48	Providing and fixing of M.S grills of required pattern in frames of windows etc. with M.S flats, Square or round bar etc all complete		
	9.48.1	<b>Fixed to steel window by welding</b>	Kg	108.00
171	9.48.2	Providing and fixing of M.S grills of required pattern in frames of windows etc. with M.S flats, Square or round bar etc all complete		
		<b>Fixed to openings / wooden frames with rawl plugs screw etc</b>	Kg	117.00
172	9.51	Providing and fixing fly proof galvanised M.S wire gauge to windows and clearstorey window using galvanised M.S wire with average width of aperature 1.4mm in both directions with wire dia 0.63mm		
	9.51.1	<b>With second class teak wood beading 62x19mm</b>	Sq.M	808.00
173	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts nuts and wooden plugs and embedding in cement concrete block 30x10x15 cm 1:3:6 mix (1 cement : 3 sand: 6 coarse aggregate)	Each	111.00
174	9.117	Providing and fixing factory made UPVC door frame made of UPVC extruded , section having an overall dimension , as below (tolerence +/- 1mm) with wall thickness 2.0 +/- 0.2mm. Corners of the door frame to be jointed with galvanized brackets and stainless steel screws, jointed and mitred and plastic wilded. the hinge side vericalof the frames reinforced by galvanised m.S tube of size 19x19mm and 1mm +/- 0.1 mm wall thick ness and 3 nos stainless steel hinges fixed to the frame complete aas per manufacture specification and direction of Engineer in charge.		
	9.117.1	<b>Extruded section Profile size 48x40mm</b>	RM	464.00
175		Providing and fixing factory made UPVC door frame made of UPVC extruded , section having an overall dimension , as below (tolerence +/- 1mm) with wall thickness 2.0 +/- 0.2mm. Corners of the door frame to be jointed with galvanized brackets and stainless steel screws, jointed and mitred and plastic wilded. the hinge side vericalof the frames reinforced by galvanised m.S tube of size 19x19mm and 1mm +/- 0.1 mm wall thick ness and 3 nos stainless steel hinges fixed to the frame complete aas per manufacture specification and direction of Engineer in charge.		
	9.117.2	<b>Extruded section Profile size 42x50mm</b>	RM	505.00
176	9.118.1	Providing and fixing to existing door frames 24mm thick factory made PVC door shutter made of styles and rails of a UPVC hollow section of size 59x24mm and thickness 2mm +/-0.2mm with inbuilt edging on both sides. The styles and rails mitred and jointed at the corners by means of M.S galvanised /plastic brackets of size 75x220 mm having wall thick ness 1.0mm and stainless steel screws. the styles of the shutter reinforced by inserting galvanised M.S tube of size 20x20mm and 1mm +/- 0.1mm wall thickness. the lock rail made up of H section, a UPVC hollow section of size 100x24mm and 2mm+/- 0.2mm wall thickness fixed to the shutter styles by means of plastic / galvanised M.S U cleats. the shutter frame filled with a UPVC multichambered single panel of size not less than 620mm , having over all thickness of 20mm and 1mm +/- 0.1mm wall thickness. the panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S rod and fastened with nuts and washers complete as per manufactur's specification and direction of Engineer in Charge. (For WC and bathroom door shutter)	Sq.M	2486.00
177	9.118.2	Providing and fixing to existing door frames 30mm thick factory made PVC door shutter made of styles and rails of a UPVC hollow section of size 30x60mm and thickness 2mm +/-0.2mm with inbuilt edging on both sides. The styles and rails mitred and jointed at the corners by means of M.S galvanised /plastic brackets of size 75x220 mm having wall thick ness 1.0mm and stainless steel screws. the styles of the shutter reinforced by inserting galvanised M.S tube of size 20x20mm and 1mm +/- 0.1mm wall thickness. the lock rail made up of H section, a UPVC hollow section of size 100x30mm and 2mm+/- 0.2mm wall thickness fixed to the shutter styles by means of plastic / galvanised M.S U cleats. the shutter frame filled with a UPVC multichambered single panel of size not less than 620mm , having over all thickness of 20mm and 1mm +/- 0.1mm wall thickness with 20mm panel beading of suitable size / glass (4mm thick) /louver section , louver frame of the suitable size the panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S rod and fastened with nuts and washers complete as per manufacture's specification and direction of Engineer in Charge. (For WC and bathroom door hutter)	Sq.M	2789.00

178	9.118.3	<p>Providing and fixing to existing door frames 25mm thick PVC flush door shutters upto 737 mm width of colour and shade as approved by Engineer in Charge made out of one piece multi chamber extruded PVC section of the size of 762x25mm or less as per requirement with an average wall thickness of 1mm +/- 0.3mm . PVC foam end cap of size 23x10mm are provided on both vertical edges to ensure the overall thickness of 25mm . An Ms tube having dimensions 19x19mm is inserted along the hinges side of the door core of the door shutter should be filled with high density polyurethane foam. The top and bottom edges of the shutter are covered with an end cap of the size 25x11mm . door shutter shall be reinforced with special polymeric reinforcement as per manufacture specification and drawing to take up necessary hardware and fixtures . Stickers indicating the location of hardware will be pasted at appropriate places</p>	Sq.M	2525.00
179		<p>Providing and fixing 35 mm thick flush door shutter with ISI marked non decorative type with solid block board construction with frame of first class hard wood and well matched, commercial veneering on both faces of shutter finished as per grains and cross bands on face veneers bonded with phenol formaldehyde synthetic resin on both faces of shutter finished as per specifications mentioned (Drawing) with teak wood lipping of 6 mm thick. (Excluding the cost of fittings.) (GREEN /KIT/MAYUR/EQUIVALENT)</p> <p><b>35mm thick includig ISI marked stainless steel butt hinges with necessary screws.</b></p>	Sq.M	2388.00
180		<p>Providing and fixing of Prelaminated BWR particle board 10 mm thick MDF (Medium Density fibreboard)water proof board (11.5mm) (GREEN PLY/ CENTURIAN /ARCHID/ Equivalent) for cupboard with laminated portion towards outside of size 750x600mm C/S without rack and painting inside with enamel paint complete as per drawing and fixing in position at required level including all fixture and fittings (aluminium sliding guard rail, and roller and hanlde etc all complete with proper locking arrangement for smooth sliding and complete in all respect) (All material to be supplied by the agency) with a 10mm BWR ply with one side laminate with 1mm thick for shutter and including guiding rail track lock etc complete as per direction of Engineer in Charge.</p>	Sq.M	938.00
181		<p>Providing and fixing 1.5 mm thick Laminates (MARINO)glossy finish or simple mat finish as per requirement and direction of EngineerinCharge with adhesive of approved make complete as and where required cost including all wastage and adhesive etc complete.</p>	Sq.M	1000.00
182		<p>Providing and fixing 12mm thick prelaminate particle board/ MDF (Medium Density fibreboard)water proof board (11.5mm) flat pressed three layer or graded wood particle board conforming to IS12823 grade 1 type II in panelling fixed in aluminium doors windows shutters and partition frames with CP brass /stainless steel screws etc complete as per architectural drawing and direction of EngineerinCharge.</p> <p><b>Prelaminated particle board with decorative lamination on one side and balancing lamination on other side.</b></p>	Sq.M	1080.00
183		<p>Providing and fixing 12mm thick wall panelling with block board /MDF (Medium Density fibreboard)water proof board (11.5mm) in wall panelling over wall for decorative design as per Architectural drawing and design complete with over the frame workof Wooden runner and channel of size 50x40mm fixed to wall with SS screw and nylon sleeves @ 600mm C/C both ways and at the last end near to the wall not greated than 450mm and comlete with leveling and adustin the wall levels with rawl plug and complete as per directionof Engineer inc harge with 12mm ply complete with teak wood beading as per drawing and specification with melamine polish for Teak wood to be fixed to the wall exactly vertical to the floor and ceiling and fixed firmly to the wall cost includes all materials tax scaffolding transportation tools and plants etc ccomplete in all respect as per direction of Engineer in Charge.</p> <p><b>Block board 12mm thick with decorative lamination on one side</b></p>	Sq.M	1414.00
184		<p>Providing and fixing of glazing in aluminium/ Wooden/ UPVC door window ventilator shutters and partition etc with PVC /neoprene gaskets etc complete as per architectural drawing and the direction of te Engineer in Charge with teak wood lipping etc compl;ete for fixing in position with wall partition etc complete</p>		
184a		<b>With float glass panes of 4.0mm thickness</b>	Sq.M	1120.00
184b		<b>With float glass panes of 5 mm thickness</b>	Sq.M	1159.00
184c		<b>With float glass panes of 12mm thickness</b>	Sq.M	2015.00

185		Providing and fixing double action hydraulic floor spring (GODREJ MAKE) of approved brand and manufacture IS 6315 marked for doors including cost of cutting floors as required embedding in floors and cover plates with brass pivots and single piece M.S Sheet outer box with side plate etc complete as per direction of Engineer in Charge <b>With stainless steel cover plate</b>	Each	2711.00
186		Providing and fixing of wood designer lipping with 2nd class teak wood battens of 50mm width 25mm minimum depth on all edges of shutter table etc complete with varnishing etc complete as per direction of Engineer in charge.	RM	62.00
187		Providing and fixing Double skin partition with 12mm thick prelaminated particle board / MDF (Medium Density fibreboard)water proof board (11.5mm)flat pressed three layer or graded wood particle board conforming to IS12823 grade 1 type II in panelling fixed in aluminium doors windows shutters and partition frames with CP brass /stainless steel screws etc complete as per architectural drawing and direction of EngineerinCharge. <b>Prelaminated Double skin partition with particle board with decorative lamination on both side</b>	Sq.M	1018.00
188	9.23	Extra for providing vision panel in all type of flush doors (cost of glass excluded (overall are of door shutter to be measured) Rectangular or Square	Sq.M	176.00
189	9.112	Providing and fixing of 2nd class teak wood lipping/ moulded beading or taj beading of size 18/25/30x5/10mm fixed with adhesive of approved quality screw/ nails on the edges of Doors and chowkhats	RM	53.00
190	9.147.3	Providing and fixing factory made uPVC white colour casement / sldiding /overhung window doors made of extruded profiles of frames and sash will be mitered cut and fusion welded at all corners including drilling of holes for fixing hard wares and drainage of waters etc making arrangement for fixing hardwares EPDM gasket 1.2+/- 0.2mm thick galvanized steel profile to be inserted in required profile frame will be fixed to the wall with 8x100 mm long fasteners al;l complete as per direction of Engineer in charge (rates including of all rates including hardware fittings glazing complete as per direction of Engineer in charge of approved brand and design (Fenesta/ LG hyusen/equivalent) Sliding wind or with two/three track (2/4 shutter) sliding frame 67/52mm with sliding glazing bead 35mmx18mm with sliding interlock for window (one vertical in each shutter 45.5x28mm with 5mm glass of approved quality and with touch lock , steel roller 8 nos, crescent lock 2 nos (white powder coated ) all complete as per direction of Engineer in charge (measurement to be taken as Sq.M)	Sq.M	4896.00
191	9.55	Providing and fixing ISI marked M.S pressed butt hinges bright finished with necessary screws etc complete:		
191a	9.55.1	125x65x2.12mm	Each	26.00
191b	9.55.2	100x58x1.90mm	Each	21.00
191c	9.55.3	75x47x1.70mm	Each	18.00
191d	9.55.4	50x37x1.50mm	Each	11.00
192	9.56	Providing and fixing IS 1341 marked M.S heavy weight butt hinges with necessary screws etc complete		
192a	9.56.1	125x90x4.0mm	Each	39.00
192b	9.56.2	100x75x3.50mm	Each	31.00
192c	9.56.3	75x60x3.10mm	Each	23.00
192d	9.56.4	50x40x2.5mm	Each	12.00
193	9.57	Providing and fixing ISI marked oxidised M.S pressed Butt hinges with necessary screw etc complete		
193a	9.57.1	125x65x2.12mm	Each	46.00
193b	9.57.2	100x58x1.90mm	Each	37.00
193c	9.57.3	75x47x1.70mm	Each	26.00
193d	9.57.4	50x37x1.50mm	Each	15.00
194	9.58	Providing and fixing ISI marked oxidised M.S parliamentary hinges with necessary screw etc complete		
194a	9.58.1	150x125x27x2.80mm	Each	103.00
194b	9.58.2	125x125x27x2.8x mm	Each	85.00
194c	9.58.3	100x125x27x2.8mm	Each	73.00
194d	9.58.4	75x100x20x2.24mm	Each	60.00
195	9.59, 9.60	Providing and fixing ISI marked oxidised M.S single acting spring/ double acting spring hinges hinges with necessary screw etc complete		

195a	<b>9.59.1</b>	Single acting 150mm	Each	138.00
195b	<b>9.59.2</b>	Single acting 125mm	Each	118.00
195c	<b>9.60.1</b>	Double acting 150mm	Each	147.00
195d	<b>9.60.2</b>	Double acting 125mm	Each	135.00
196	<b>9.61</b>	Providing and fixing of M.S piano hinges ISI marked IS 3818 finished with nickel plating and fixing with necessary screw etc complete		
196a	<b>9.61.1</b>	Overall width 50mm	Rm	150.00
196b	<b>9.61.2</b>	Overall width 65mm	Rm	156.00
196c	<b>9.61.3</b>	Overall width 35mm	Rm	131.00
197	<b>9.62</b>	Providing and fixing of ISI marked oxidised M.S Sliding door bolts with nut and screw etc complete		
197a	<b>9.62.1</b>	300x16mm	Each	222.00
197b	<b>9.62.2</b>	250x16mm	Each	175.00
198	<b>9.63</b>	Providing and fixing ISI marked oxidised M.S tower bolt black finish (barrel type) with necessary screws etc complete:		
198a	<b>9.63.1</b>	250x10mm	Each	61.00
198b	<b>9.63.2</b>	200x10mm	Each	46.00
198c	<b>9.63.3</b>	150x10mm	Each	36.00
198d	<b>9.63.4</b>	100x10mm	Each	27.00
199	<b>9.64</b>	Providing and fixing of ISI marked 85x42mm oxidised M.S pull bolt lock conforming to IS 7534 with necessary screws and washers etc complete	Each	110.00
200	<b>9.65</b>	Providing and fixing ISI marked oxidised M.S door latches conforming to IS 5930 with screws etc complete..		
200a	<b>9.65.1</b>	300x20x6mm	Each	229.00
200b	<b>9.65.2</b>	250x20x6 mm	Each	188.00
201	<b>9.66</b>	Providing and fixing ISI marked oxidised M.S handles conforming to IS 4992 with screws etc complete..		
201a	<b>9.66.1</b>	125mm	Each	39.00
201b	<b>9.66.2</b>	100mm	Each	34.00
201c	<b>9.66.3</b>	75mm	Each	32.00
202	<b>9.67</b>	Providing and fixing ISI marked oxidised M.S hasp and staple (safety type) conforming to IS 363 with screws etc complete.		
202a	<b>9.67.1</b>	150mm	Each	28.00
202b	<b>9.67.2</b>	115mm	Each	24.00
202c	<b>9.67.3</b>	90mm	Each	18.00
203	<b>9.68</b>	Providing and fixing oxidised M.S casement stays (straight peg type) with necessary screw and etc complete.		
203a	<b>9.68.1</b>	300mm weighing not less than 200gm	Each	66.00
203b	<b>9.68.2</b>	250mm weighing not less than 150gm	Each	55.00
203c	<b>9.68.3</b>	200mm weighing not less than 120gm	Each	39.00
204	<b>9.69</b>	Providing and fixing oxidised M.S safety chain with necessary fixtures for door (Weighing not less than 450 Gms)	Each	79.00
205		Providing and fixing oxidised M.S casement window fastener with necessary fixtures for door	Each	47.00
206	<b>9.70</b>	Providing and fixing of IS 12817 marked stainless steel butt hinges with stainless steel screw etc complete		
206a	<b>9.70.1</b>	125x64x2.12mm	Each	49.00
206b	<b>9.70.2</b>	100x58x1.90mm	Each	40.00
206c	<b>9.70.3</b>	75x47x1.70mm	Each	32.00
206d	<b>9.70.4</b>	50x37x1.50mm	Each	22.00
207	<b>9.71</b>	Providing and fixing IS 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc complete:		
207a	<b>9.71.1</b>	125x64x2.50mm	Each	52.00
207b	<b>9.71.2</b>	100x60x2.50mm	Each	45.00
207c	<b>9.71.3</b>	75x50x2.50mm	Each	30.00
208	<b>9.72</b>	Providing and fixing bright finished brass butt hinges (Heavy type) with necessary screw etc complete:		
208a	<b>9.72.1</b>	125x85x5.5mm	Each	220.00
208b	<b>9.72.3</b>	100x85x5.5mm	Each	195.00

208c	<b>9.72.5</b>	75x65x4mm	Each	139.00
208d	<b>9.72.6</b>	50x40x2.5mm	Each	97.00
209	<b>9.73</b>	Providing and fixing bright finished brass parliamentary hinges with necessary screw etc complete		
209a	<b>9.73.1</b>	150x125x27x5mm	Each	114.00
209b	<b>9.73.2</b>	125x125x27x5 mm	Each	98.00
209c	<b>9.73.3</b>	100x125x27x5mm	Each	84.00
209d	<b>9.73.4</b>	75x100x20x3.2mm	Each	69.00
210	<b>9.74</b>	Providing and fixing bright finished brass tower bolt (barrel type) with necessary screws etc complete:		
210a	<b>9.74.1</b>	250x10mm	Each	303.00
210b	<b>9.74.2</b>	200x10mm	Each	267.00
210c	<b>9.74.3</b>	150x10mm	Each	214.00
210d	<b>9.74.4</b>	100x10mm	Each	181.00
211		Providing and fixing of Bright finished brass Sliding door bolts with nut and screw etc complete		
211a		300x16mm	Each	1227.00
211b		250x16mm	Each	1097.00
212	<b>9.76</b>	Providing and fixing bright finished brass 100mm mortice latch and lock with 6 levers and pair of lever handles with necessary screws etc complete: (best make of approved quality)	Each	1077.00
213	<b>9.79.2</b>	Providing and finishing special quality bright finished brass cupboard or ward robe locks with four levers including necessary screws etc complete (best make of approved quality)(50mm dia)	Each	288.00
214	<b>9.79.1</b>	Providing and finishing special quality bright finished brass cupboard or ward robe knob with necessary screws etc complete best make of approved quality)(40mm dia)	Each	191.00
215	<b>9.81</b>	Providing and fixing bright finished brass handles with screws etc complete:		
215a	<b>9.81.1</b>	125mm	Each	216.00
215b	<b>9.81.2</b>	100mm	Each	203.00
215c	<b>9.81.3</b>	75mm	Each	177.00
216	<b>9.82</b>	Providing and finishing special quality bright finished brass hanging type floor door stopper with necessary screws etc complete	Each	134.00
217		Providing and fixing IS 3564 marked Aluminium die cast body/ extruded section body tubular type universal hydraulic door closer with necessary accessories and screws etc complete.		
217a	<b>9.83</b>	Aluminium die cast body	Each	2402.00
217b	<b>9.84</b>	Aluminium extruded section	Each	2752.00
218	<b>9.85</b>	Providing and fixing bright finished brass casement window fastener with necessary screw etc complete.	Each	158.00
219	<b>9.86</b>	Providing and fixing bright finished brass casement stays (straight peg type) with necessary screws etc. complete		
219a	<b>9.86.1</b>	300mm	Each	154.00
219b	<b>9.86.2</b>	250mm	Each	123.00
220	<b>9.87</b>	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screw etc complete:		
220a	<b>9.87.1</b>	150mm	Each	78.00
220b	<b>9.87.2</b>	115mm	Each	68.00
221	<b>9.88</b>	Providing and fixing bright finished CP brass 100mm mortice latch and lock with 6 levers and pair of lever handles with necessary screw etc complete(best make of approved quality)	Each	1194.00
222	<b>9.92</b>	Providing and fixing bright finished CP brass handles with screws etc complete:		
222a	<b>9.92.1</b>	125mm	Each	303.00
222b	<b>9.92.2</b>	100mm	Each	242.00
222c	<b>9.92.3</b>	75mm	Each	203.00
223	<b>9.93</b>	Providing and fixing bright finished CPbrass casement window fastener with necessary screw etc complete.	Each	158.00
224	<b>9.94</b>	Providing and fixing bright finished CP brass casement stays (straight peg type) with necessary screws etc. complete		
224a	<b>9.94.1</b>	300mm	Each	158.00

224b	<b>9.94.2</b>	250mm	Each	146.00
225	<b>9.95</b>	Providing and fixing ISI marked aluminium butt hinges anodised coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour or shade with necessary screws etc complete: butt hinges (Heavy type) with necessary screw etc complete:		
225a	<b>9.95.1</b>	125x75x4mm	Each	100.00
225b	<b>9.95.2</b>	125x63x4mm	Each	96.00
225c	<b>9.95.3</b>	100x75x4mm	Each	83.00
225d	<b>9.95.4</b>	100x63x4mm	Each	74.00
225e	<b>9.95.5</b>	100x63x3.2mm	Each	78.00
225f	<b>9.95.6</b>	75x63x4mm	Each	60.00
225g	<b>9.95.7</b>	75x63x3.2mm	Each	54.00
225h	<b>9.95.8</b>	75x45x3.2mm	Each	46.00
226	<b>9.97</b>	Providing and fixing of aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS :1868) transparent or dyed to required colour or shades with necessary screw etc complete:		
226a	<b>9.97.1</b>	300x10mm	Each	271.00
226b	<b>9.97.2</b>	250x10mm	Each	208.00
226c	<b>9.97.3</b>	200x10mm	Each	161.00
226d	<b>9.97.4</b>	150x10mm	Each	123.00
227	<b>9.96</b>	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour or shade with nuts and screw etc . Complete:		
227a	<b>9.96.1</b>	300x16mm	Each	263.00
227b	<b>9.96.2</b>	250x16mm	Each	237.00
228	<b>9.100</b>	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC10 as per IS 1868) transparent or dyed to required colour or shade with necessary screw etc. complete:		
228a	<b>9.100.1</b>	125mm	Each	107.00
228b	<b>9.100.2</b>	100mm	Each	101.00
228c	<b>9.100.3</b>	75mm	Each	98.00
229	<b>9.101</b>	Providing and fixing aluminum hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour and shade with necessary screws etc complete:		
229a	<b>9.101.1</b>	Single Rubber stopper	Each	79.00
229b	<b>9.101.2</b>	Double rubber stopper	Each	119.00
230	<b>9.109</b>	Providing and fixing PTMT door catcher of length 72mm and dia of 42mm with suitable washers weighing not less than 33 Gms	Each	93.00
231	<b>9.113</b>	Providing and fixing bright finished 100mm mortice lock with 6 levers with out pair of handles for aluminium door with necessary screw etc complete (best make of approved quality) as per direction of Engineer in Charge.	Each	606.00
232	<b>9.114</b>	Providing and fixing magnetic catcher in cupboard / ward robe shutters including fixing with necessary screws etc complete (best make of approved quality)		
232a	<b>9.114.1</b>	Triple strip vertical type	Each	93.00
232b	<b>9.114.2</b>	two strip horizontal type	Each	69.00
233		Providing and fixing of stainless steel tower bolts ISI marked of approved make jindal/ equivalent with necessary screw etc complete:		
233a		300x10mm	Each	261.00
233b		250x10mm	Each	236.00
233c		200x10mm	Each	178.00
233d		150x10mm	Each	151.00
234		Providing and fixing Stainless steel sliding door bolts ISI marked (of approved make jindal/equivalent) with nuts and screw etc . Complete: as per direction of Engineer in Charge.		
234a		300x16mm	Each	383.00
234b		250x16mm	Each	322.00
234c		300x12mm	Each	295.00
234d		250x12mm.	Each	263.00

235		Providing and fixing Stainless steel handles ISI marked (of approved make jindal/equivalent) with nuts and screw etc . Complete: as per direction of Enginner in Charge.		
235a		100mm	Each	142.00
235b		150mm	Each	175.00
235c		75mm	Each	72.00
236	<b>9.79.2</b>	Providing and finishing special quality bright finished SS cupboard or ward robe locks with four levers including necessary screws etc complete (best make of approved quality) <b>Cup board lock 50mm</b>	Each	226.00
237	<b>9.79.1</b>	Providing and finishing special quality bright finished stainless steel cupboard or ward robe knob with necessary screws etc complete best make of approved quality)	Each	106.00
238		Providing and finishing special quality bright finished SS hook and eyeincluding necessary screws etc complete (best make of approved quality) 75mm	Each	106.00
239		Providing and finishing special quality bright finished stainless steel Door lock bolt with necessary screws etc complete best make of approved quality) 125mm	Each	147.00
240		Providing and finishing special quality PTMT handle including necessary screws etc complete (best make of 125x34x24mm weigh not less than 23 gms approved quality)	Each	45.00
241		Providing and finishing special qualityPTMT tower bolts with 12 mmone piece rod inside with necessary screws etc complete best make of approved quality 152x42x18mm weight not less than 60 gms)	Each	88.00
242		Providing and fixing Stainless steelfriction hinges (SS304 grade) to the sides of top hung uPVC / Aluminum windows of approved quality with necessary stainless steel screws (of approved make jindal/equivalent) with nuts and screw etc . Complete: as per direction of Enginner in Charge		
242a		205x19x1.9mm	Each	307.00
242b		355x19x1.9	Each	423.00
242c		510x19x1.9mm	Each	600.00
243		Providing and fixing concealed Stainless steel hinges (SS304 grade) 90mm / tubular hinges 100mm / box hinges 150mm (stainless steelto the sides of top hung cupboard door shutter of approved quality with necessary stainless steel screws (of approved make jindal/equivalent) with nuts and screw etc . Complete: as per direction of Enginner in Charge.		
243a		concealed hinge 90mm	Each	213.00
243b		tubular hinge 100mm	Each	235.00
243c		box hinges 150mm	Each	201.00

## 10.0 STEEL WORK

244	<b>10.1</b>	Structural steel work in single section fixed with or without connecting plate including cutting hoisting fixing in position and applying coat of approved steel primer complete.	Kg	71.00
245	<b>10.2</b>	Structural steel work riveted, bolted or welded in built up sections , trusses and frmaned work including cutting hoisting fixing in position and applying a priming coat of approved steel primer all complete.	Kg	75.00
246	<b>10.3</b>	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6 mm with 40mm dia steel pulley completee with bolts and nuts locking arrangement , stoppers, handles, including a priming coat of steel primer	Sq.M	5087.00
247	<b>10.5</b>	Providing and fixing 1mm thick M.S sheet door with frame of 40x40x6mm angle iron and 3mm M.S gusset paltes at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.		
	<b>10.5.1</b>	<b>Using M.S angle 40x40x6 mm for diagonal braces</b>	Sq.M	2933.00
248	<b>10.5.2</b>	Providing and fixing 1mm thick M.S sheet door with frame of 40x40x6mm angle iron and 3mm M.S gusset paltes at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. <b>Using M.S flats 30x6 mm for diagonal braces</b>	Sq.M	2781.00



249	10.6	Supplying and fixing of rolling shutters of approved make and made of required M.S laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5CM long wire spring s grade No-2 and M.S top cover of required thickness for rolling shutters		
	10.6.1	<b>80x1.25 M.S lathe with 1.25mm thick top cover</b>	Sq.M	4015.00
250	10.7	Providing and fixing of Ball bearing for rolling shutter	Each	379.00
251	10.9	Extra for providing rolling shutters manufactured of 8mm dia M.S bar instead of laths as per approved by Engineerin Charge. (area of grill to be measured)	Sq.M	528.00
252	10.13	Providing and fixing of T iron frames for doors windows and ventilators of mild steel TEE section , joints and mitred and welded with 15x3mm lugs , 10CM long embedded in cement concrete blocks 15x10x10 CM of CC 1:3:6 (1 cement : 3 sand: 6 coarse aggregate) or with wooden plugs and screws or with dash fastener or rawl plug and screw or fixing with clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.	Kg	91.00
253	10.14	Providing and fixing pressed steel door frames conforming to IS 4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges, jambs, lock jamb, bead and if required angle threshold of mild steel angle section of 50x25mm or base tie of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustablelugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike -plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer in charge:		
253a	10.14.1	<b>Profile B</b>	RM	467.00
253b	10.14.2	<b>Profile C</b>	RM	515.00
254	10.15	Providing and fixing M.S tubular frames for doors, windows, ventilators and cupboard with Ltype section made of 1.60mm thick M.S sheet joints mitred and welded and grinded finish with profiles of required size with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of CC 1:3:6 (1 cement : 3 sand: 6 coarse aggregate) or with wooden plugs and screws or with dash fastener or rawl plug and screw or fixing with clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.	Kg	120.00
255	10.16	Steel work in built up tubular trusses including cutting , hoisting fixing in position and applying a priming coat of approved steel primer welded and bolted including special shaped washers etc complete		
	10.16.1	<b>Hot finished welded type tubes</b>	Kg	117.00
256		Steel work in built up tubular trusses including cutting , hoisting fixing in position and applying a priming coat of approved steel primer welded and bolted including special shaped washers etc complete		
	10.16.2	<b>Hot finished Seam less type tubes</b>	Kg	104.00
257	10.17	Providing and fixing of M.S fan clamps of type I or II of 16mm dia MS bar bent to shape with hooked ends in RCC slabs, beams during laying including painting the exposed portion of loop, all as per standard design complete.	Each	133.00
258	10.20	Providing and fixing of bolts including nuts and washer complete	Kg	86.00
259	10.22	Welding by gas or electric plant including transportation of plant at site etc complete	Cm'	3.00
260	10.23	Providing and fixing of bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc complete	Each	84.00
261	10.24	Providing and fixing of bright finished brass casement window handles/spring catch to windows/ ventilators with necessary welding and machine screws etc complete	Each	64.00
262	10.25	Steel work welded in built up section /framed work including cutting hoisting fixing in position and applying a priming coat of approved steel primer using steel etc as required.		
	10.25.1	<b>In stringers, traeds, landing etc of stair cases including use of chequred plates wherever required all complete</b>	Kg	86.00
263	10.25.2	Steel work welded in built upsection/ framed work including cutting hoisting fixing in position and applying a priming coat of approved steel primer using structural steel etc as required below in grating frames guard bar ladder railings brackets gates and similar works <b>in grating , frames guard bar railing brackets gates and similar works</b>	Kg	98.00

264	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing , balcony railing and staircases railing including applying priming coat of approved steel primer		
264a	10.26.1	<b>MS tube</b>	Kg	122.00
264b		<b>MS tube</b>	RM	440.00
264c	10.26.2	<b>ERW Tube</b>	Kg	113.00
264d		<b>ERW Tube</b>	RM	371.00
265		Providing and fixing ISI marked steel glazed doors, windows and ventilators of standard rolled steel sections, (as per IS 1038 with Z or L section )joints mitred and welded with 15x3 mm lugs, 10cm long, embedded in cement concrete blocks 15x10x10 CM of 1:3:6 (1 cement: 3 Sand: 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screw or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer, excluding the cost of metal beading and including other fitting (stay ,handle),necessary hinges or Pivots as required.	Sq.M	2127.00
266		Providing and fixing 1.25mm thick G.I sheet door with frame of 40x40x6mm angle iron and 3mm M.S gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. <b>Using M.S flats 30x6 mm for diagonal braces</b>	Sq.M	2789.00
267		Providing and fixing hand rail of approved size by welding etc. to steel ladder railing , balcony railing and staircases railing including applying priming coat of approved steel primer		
267a		<b>Stainless steel Tube of 302/202 grade</b>	RM	1444.00
267b		<b>Stainless steel Tube of 302/202 grade</b>	Kg	440.00
268		Providing and fixing of G.I chain link fabric fencing of required width in mesh size of 50mmx50mm including strengthening with 2mm dia wire and nuts bolts and washers as required complete as per direction of Engineer in charge. <b>made of GI wire of dia 4mm</b>	Sq.M	640.00
269		Supply and fixing of Locally made stainless steel railing with specification 304 grade 16gauge 38mm dia top rail and 38mm dia baluster with 3 nos intermediate pipe of 12mm dia of equal spacing prefixed with special design rivets expansion bolt and finishing of the surface with steel shoe with all visible stainless steel metal in mat finish the height of railing shall be 900mm with distance between two vertical member approx 900mm to 1000mm of special design as per architects drawing etc complete <b>Stainless steel Tube of 304 grade</b>	RM	2324.00
270	10.28	Providing and fixing stainless steel (grade-304) hollow tubes/sheet/ angle / structural section etc complete including welding grinding buffing polishing and making curvature (wherever required) and fittings the same with necessary all nuts bolts etc complete of approved size by welding etc. to steel ladder railing, grating , grills , balcony railing and staircases railing including fixing the railing with necessary accessories & stainless steel dash fasteners stainless steel bolts etc of required size on top of the floors or the side of waist slab with suitable arrangement as per approval of Engineer in charge. <b>Stainless steel 304/204 grade</b>	Kg	691.00

## 11.0 FLOORING WORK

271	11.1	Brick on Edge flooring with bricks of class designation 75 including cement slurry etc. complete in cement mortar with F.P.S bricks		
	11.1.1	<b>1:4 cement Mortar (1 cement : 4 sand)</b>	Sq.M	538.00
272	11.1.2	Brick on Edge flooring with bricks of class designation 75 including cement slurry etc. complete in cement mortar with F.P.S bricks		
		<b>1:6 cement Mortar (1 cement : 6 sand)</b>	Sq.M	493.00
273	11.2	Dry brick on edge flooring in required pattern with bricks of class designation 75 on a bed of sand including filling joints with river sand (with F.P.S bricks) complete.	Sq.M	396.00
274		Brick flat soiling with bricks of class designation 75 including sand for filling complete with F.P.S bricks	Sq.M	245.00

275	11.3	cement concrete flooring 1:2:4 (1 cement : 2 sand: 4 coarse aggregate) finished with a floating coat of neat cement including cement slurry , but excluding the cost of nosing of steps etc. complete <b>40mm thick with 20mm nominal size stone aggregate</b>	Sq.M	313.00
276	11.6	cement plaster skirting (Upto 30CM height) with cement mortar 1:3( 1 cement : 3 Sand) finished with floating coat of neat cement. <b>18mm thick</b>	Sq.M	243.00
277	11.7	cement concrete Pavement with 1:2:4 (1 cement : 2 sand: 4 coarse aggregate) including finishing complete	Cum	5300.00
278	11.8	Extra for making chequers of approved pattern on cement concrete floors steps landing pavement etc.	Sq.M	25.00
279	11.9	40mm thick marble chips flooring rubbed and polished to granolithic finish , under layer of 34mm thick cement concrete 1:2:4 (1 cement : 2 sand:4 stone aggregate) and top layer 6mm thick with white, black chocolate, grey,yello, green marble chips of sizes from 1mm to 4mm nominal size laid in cement marble mix 3:1 (3 cement: 1 marble powder) by weight in proprtion of 4:7 (4 cement marble powder mix: 7 marble chips) by volume including cement slurry etc complete <b>Dark shade pigment with ordinary cement</b>	Sq.M	636.00
280	11.11	40mm thick marble chips flooring rubbed and polished to granolithic finish , under layer of 28mm thick cement concrete 1:2:4 (1 cement : 2 sand:4 stone aggregate) and top layer 12mm thick with white, black chocolate, grey,yello, green marble chips of sizes from 7mm to 10mm nominal size laid in cement marble mix 3:1 (3 cement: 1 marble powder) by weight in proprtion of 2:3 (2 cement marble powder mix: 3 marble chips) by volume including cement slurry etc complete <b>Dark shade pigment with ordinary cement</b>	Sq.M	790.00
281	11.12	Marble chips skirting (upto 30 Cm height) rubbed and polished to granolithic finish , top layer 6mm thick with white black, chocolate, grey, yellow or green marble chips of sizes from 1mm to 4mm nominal size laid in cement marble mix 3:1 (3 cement: 1 marble powder) by weight in proprtion of 4:7 (4 cement marble powder mix: 7 marble chips) by volume including cement slurry etc complete <b>18mm thick with under layer 12mm thick cement plaster 1:3 (1 cement: 3 sand) Dark shade pigment with ordinary cement</b>	Sq.M	731.00
282	11.13	Providing and fixing glass strips in joints of terrazo/ cement concrete floors <b>40mm wide and 4 mm thick</b>	RM	75.00
283	11.14	Extra for laying terrazo flooring on staircases treads not exceeding 30 Cm in width including cost of forming , nosing etc	Sq.M	27.00
284	11.16	Precast/ Chequered terrazo tiles 22mm thick with graded marble chips of size upto 12mm in floors and landing joined with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement : 4 sand) <b>light shade using White cement</b>	Sq.M	1143.00
285	11.17	Extra for laying terrazotiles staircases treads not exceeding 30 Cm in width	Sq.M	31.00
286	11.18	Precast / chequered terrazo tiles 22mm thick with graded marble chips of size upto 12mm in skirting and risers of step not exceeding 30 CM in height on 12mm thick cement plaster 1:3 (1 cement: 3 sand) joined with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete <b>light shade using White cement</b>	Sq.M	1051.00
287	11.22	Tile work in skirting , risers of step and dado (Upto 2 mtr height) over 12mm thick bed of cement mortar 1:3 (1 cement: 3 sand) and joined with grey cement slurry @3.3 Kg/Sq.M including pointing in white cement mixed with pigment of matching shade complete <b>Marble tile (polished) raj nagar 8mm thick</b>	Sq.M	1161.00
288	11.23	Marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by the Engineer in Charge. Over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand) laid and joined with grey cement slurry including rubbing and polishing complete with :		
	11.23.1	<b>Makrana white second Quality</b>	Sq.M	2400.00

289		Marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by the Engineer in Charge. Over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand) laid and joined with grey cement slurry including rubbing and polishing complete with :		
	<b>11.23.2</b>	<b>Raj nagar White marble</b>	Sq.M	2400.00
290	<b>11.23.6</b>	Marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by the Engineer in Charge. Over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand) laid and joined with grey cement slurry including rubbing and polishing complete with : <b>Pink plain Marble</b>	Sq.M	2548.00
291	<b>11.23.5</b>	Marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by the Engineer in Charge. Over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand) laid and joined with grey cement slurry including rubbing and polishing complete with : <b>Udipur green marble</b>	Sq.M	2710.00
292	<b>11.24</b>	Extra for prefinished nosing to treads of steps of marble stone	RM	211.00
293	<b>11.25</b>	Extra for marble stone flooring in treads of steps and risers using single length upto 2.00 mtr	Sq.M	241.00
294	<b>11.26</b>	Kota stone slab flooring over 20mm average thick base laid and joined with greycement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1:4 (1 cement : 4 sand) <b>25mm thick</b>	Sq.M	1310.00
295	<b>11.27</b>	Kota stone slab 25mm thick in riser of steps skirting dado and pillars laid on 12mm (average) thick cement mortar 1:3 (1 cement : 3 sand) and joined with greycement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete <b>25mm thick</b>	Sq.M	1243.00
296	<b>11.31</b>	Extra for Prefinished nosing in in treads of steps of kota stone/ sand stone slab	RM	65.00
297	<b>11.32</b>	Extra for Kota stone / sand stone in treads of steps and risers using length upto 1.05mt	Sq.M	13.00
298	<b>11.36</b>	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS 15622 (thickness to be specified by the manufacture of approved make in all colours shade except burgundy, bottole green , black of any size as approved by engineer in Charge in skirting , risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 sand) and jointing with grey cement slurry @3.3 kg per Sq.M including pointing in white cement mixed with pigment of matching shade complete Providing and laying ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours such as white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1108.00
299	<b>11.37</b>	Providing and laying ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours shade except white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	989.00
300	<b>11.38</b>	Providing and laying ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours shade except white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1197.00
301	<b>11.39</b>	Providing and laying rectified ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours shade such as white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1185.00
302	<b>11.4</b>	Providing and laying rectified ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours shade except white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1185.00
303	<b>11.41</b>	Providing and laying Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer)with water absorption less than 0.08% and conforming to IS 15622 of approved make in all colours shade laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.		

	<b>11.41.1</b>	<b>Sizes of Tile 50x50xCm</b>	Sq.M	1209.00
304		Providing and laying Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer)with water absorption less than 0.08% and conforming to IS 15622 of approved make in all colours shade laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.		
	<b>11.41.2</b>	<b>Sizes of Tile 60x60xCm</b>	Sq.M	1257.00
305		Providing and laying Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer)with water absorption less than 0.08% and conforming to IS 15622 of approved make in all colours shade laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.		
	<b>11.41.3</b>	<b>Sizes of Tile 80x80Cm</b>	Sq.M	1507.00
306		Providing and laying Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer)with water absorption less than 0.08% and conforming to IS 15622 of approved make in all colours shade laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.		
	<b>11.41.4</b>	<b>Sizes of Tile 100x100xCm</b>	Sq.M	1925.00
307	<b>11.42</b>	Deduct for not using 20mm thick cement mortar 1:4 (1 cement : 4 sand) bedding in laying of floor tiles	Sq.M	376.00
308	<b>11.43</b>	Fixing glazed /ceramic /vitrified floor tiles with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477 using 5 kg Adhesive per Sq.M of tile area in average of 3mm thick ness	Sq.M	637.00
309		Providing and fixing 1st quality ceramic glazed wall tiles (Boarder tiles) conforming to IS 15622 (thickness to be specified by the manufacture of approved make in all colours shade with printed series of any size as approved by engineer in Charge in skirting , risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 sand) and jointing with grey cement slurry @3.3 kg per Sq.M including pointing in white cement mixed with pigment of matching shade complete	RM	87.00
310		Chequered precast cement concrete tiles 22mm thick in foot path and courtyard jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement : 4 sand) <b>light shade using White cement</b>	Sq.M	1105.00
311		Providing and laying 8mm thick chequered design tiles for steps riser (ANTI SKID designer) floor tiles (Ultra/pavit/Durocon) 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours shade except white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1326.00
312		Chequered precast cement concrete tiles 22mm thick DESIGNER TILE (ULTRA/ DUROCON/ EQUIVALENT ) in foot path and courtyard jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement : 4 sand) <b>Ordinary cement without any pigment</b>	Sq.M	1264.00
313		Chequered precast cement concrete tiles 22mm thick in foot path and courtyard jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement : 4 sand) <b>Ordinary cement without any pigment</b>	Sq.M	969.00
314		Providing and fixing of vinyl flooring 1.5mm thick on existing floor after through cleaning and providing uniform coat of approved adhesive as per direction of Engineer in Charge		
314a		<b>1.5mm thick</b>	Sq.M	785.00
314b		<b>2.0mm thick</b>	Sq.M	937.00
315		Providing fixing and laying 100mm thick hydraulic compressed precast inter locking block of I shape or any other approved shape with approved colour , size over 100mm thick layer including excavation and filling upto desired level and spreading fine sand over paved blocks and compacting including cost of material transporting to the site , unloading stacking etc all complete.	Sq.M	1099.00

316	Flyash solid brick (Blocks) flat soaling with brick blocks of size 300mmx200mmx150mm of class designation 75 including 150mm thick sandfilling below bricks compacting and watering as per direction and including transporting to site and laying as per drawing complete as per direction of Engineer incharge (Includes all materials and labour ) (local made blocks)	Sq.M	491.00
317	Providing and fixing of Fly ash Cement Kerbstone for road side and drain as per drawing and design including 100mm thick sand below stone and aligned straight including sand filling and ramming watering etc complete as per direction of Engineer in charge. (Earthwork to be paid separately)	RM	163.00
318	Providing and laying 15 mm thick chequered design tiles for steps riser (ANTI SKID designer) floor tiles (Ultra/pavit/Durocon) 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours shade except white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1000.00
319	Providing and laying Double charged Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer)with water absorption less than 0.08% and conforming to IS 15622 of approved make in all colours shade laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	2306.00
320	Providing and laying 500x500x40/60mm thick Turf paver (Ultra/Spectra / locally made paver block as approved by Engineer in charge )on 150mm thick of compacted bed of moorum and jamuna sand including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer- in Charge (Rate inclusive of Earth and sand and labour etc complete)	Sq.M	1257.00
321	Providing fixing and laying 80mm thick (SPECTRA/ ULTRA or equivalent) hydraulic compressed precast inter locking block of I shape or any other approved shape with approved colour , size over 100mm thick layer including excavation and filling upto desired level and spreading fine sand over paved blocks and compacting including cost of material transporting to the site , unloading stacking etc all complete.	Sq.M	935.00
322	Providing fixing and laying 60mm thick (SPECTRA/ ULTRA or equivalent) hydraulic compressed precast inter locking block of I shape or any other approved shape with approved colour , size over 100mm thick layer including excavation and filling upto desired level and spreading fine sand over paved blocks and compacting including cost of material transporting to the site , unloading stacking etc all complete.	Sq.M	935.00
323	Providing fixing and laying 60mm thick (SPECTRA/ ULTRA or equivalent) hydraulic compressed precast inter locking block of I shape or any other approved shape with approved colour , size over 20mm thick cement mortar 1:4 (1cement: 4 sand) including cost of material transporting to the site , unloading stacking etc all complete.	Sq.M	918.00
324	Providing fixing and laying 60mm thick Localy made of CC M30 hydraulic compressed precast inter locking block of I shape or any other approved shape with approved colour , size over 100mm thick layer including excavation and filling upto desired level and spreading fine sand over paved blocks and compacting including cost of material transporting to the site , unloading stacking etc all complete.	Sq.M	868.00
325	Providing and fixing 1st quality joint less ceramic glazed wall tiles of any size such as 600x300mm / 450x250mm as per approved size and shade conforming to IS 15622 (thickness to be specified by the manufacture of approved make in all colours shade except burgundy, bottole green , black of any size as approved by engineer in Charge in skirting , risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 sand) and jointing with grey cement slurry @3.3 kg per Sq.M including pointing in white cement mixed with pigment of matching shade complete	Sq.M	1361.00
326	Providing and laying ceramic glazed/ mat finish floor tiles450x450 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours such as white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	1037.00

327	Providing and fixing 1st quality joint less best quality designer printed ceramic glazed wall tiles of any size such as 600x300mm / 450x250mm/300mmx300mm as per approved size and shade and of any design conforming to IS 15622 (thickness to be specified by the manufacture of approved make in all colours shade except burgundy, bottle green, black of any size as approved by engineer in Charge in skirting, risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 sand) and jointing with grey cement slurry @3.3 kg per Sq.M including pointing in white cement mixed with pigment of matching shade complete	Sq.M	1316.00
328	Providing and applying IAIPOXY(R) SP-100 of SIKA/ FOSROC stain free Epoxy grout in 3mm groove in the joint of vitrified tile flooring for expansion stress and of approved colour and shade matching with the tiles etc complete as per the direction of Engineer-in-charge.	Sq.M	217.00
329	Providing and fixing of locally available good quality aluminium strip of 3mm thick in 3mm groove in the joint of vitrified tile flooring for expansion stress and of approved colour and shade matching with the tiles etc complete as per the direction of Engineer-in-charge.	Sq.M	189.00
330	Providing and fixing of 38mm thick wood block flooring of second class teak wood laid over 25mm thick levelling layer of cement concrete 1:2:4 (1 cement: 2 sand: 4 stone aggregate 10mm nominal chips) to be paid separately, coated with thin layer of hot bitumen (blown type) @2.45 kg/ Sq.M including fixing blocks in position after dipping in hot bitumen (blown type) upto half depth, planed, levelled smooth and finished complete with all fixture labour and transportation etc complete as per direction of Engineer in charge.	Sq.M	6640.00
331	Providing and fixing of glass mosaic tiles at finished plain wall surfaces of size 20x20x4mm in all colours design fixing in customize design as per direction of Engineer in charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per Sq.m and grouting the same the rate inclusive of all operation materials and required pattern approved by Engineer in charge.	Sq.M	1541.00
332	providing and laying machine cut, mirror polished marble stone flooring in required design pattern (simple geometrical, abstract etc) and in patterns in combination with Italian marble stones of different colour shades and finished surface textures etc in linear portion of the buildings all complete as per architectural drawings with 18mm thick stone slab laid over 20mm thick base of cement mortar 1:4 (1 cement: 4 sand) laid and jointed with white cement slurry @4.4 Kg/Sq.M including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing curing and polishing etc all complete as specified and as directed by the Engineer in charge a 18mm thick Italian marble stone slab, perlato, rossoverona, fire red or dark emperadore etc	Sq.M	5918.00
333	providing and laying machine cut, mirror polished granite stone flooring in required design pattern (simple geometrical, abstract etc) and in patterns in combination with granite stones of different colour shades and finished surface textures etc in linear portion of the buildings all complete as per architectural drawings with 18mm thick stone slab laid over 20mm thick base of cement mortar 1:4 (1 cement: 4 sand) laid and jointed with white cement slurry @4.4 Kg/Sq.M including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing curing and polishing etc all complete as specified and as directed by the Engineer in charge a 18mm granite stone (white, grey, ruby, red, black etc of approved colour	Sq.M	3220.00
334	providing and laying machine cut, mirror polished Artificial granite (belmarbo/ italia/ equivalent) flooring in required design pattern (simple geometrical, abstract etc) and in patterns in combination with Artificial granite stones of different colour shades and finished surface textures etc in linear portion of the buildings all complete as per architectural drawings with 18mm thick stone slab laid over 20mm thick base of cement mortar 1:4 (1 cement: 4 sand) laid and jointed with white cement slurry @4.4 Kg/Sq.M including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing curing and polishing etc all complete as specified and as directed by the Engineer in charge a 18mm granite stone (Red, blue, green, white, grey, ruby, red, black etc of approved colour	Sq.M	5513.00
335	Deduct for not grouting the joints with white cement and matching pigment in the items of fixing tiles/ marbles/ granite/ wall tiles etc.	Sq.M	7.00

	<b>12.0</b>	<b>ROOFING</b>		
336	<b>12.1</b>	Providing corrugated G.S sheet roofing including vertical/ curved surface fixed with polymer coated Jor L hooks , bolts, and nuts 8mm dia with bitumen and GI limpet washers or with G.I limpet washer filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheet complete up to pitch in horizontal/ vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required <b>1mm thick with Zinc coating not less than 275Gm/Sq.M</b>	Sq.M	951.00
337	<b>12.4</b>	Providing ridges or hips of width 60CM over all width plain G.S sheet fixed with polymer coated J or L hooks , bolts and nuts 8mm dia G.I limpet and bitumen washers complete <b>0.8mm thick with Zinc coating not less than 275Gm/Sq.M</b>	RM	524.00
338	<b>12.5</b>	Providing valleys of 90CM wide overall in plain G.S sheet fixed with polymer coated J or L hooks bolts and nuts 8mm dia . G.I limpet and bitumen washers complete: <b>1.60mm thck with Zinc coating not less than 350gm/Sq.M</b>	RM	1021.00
339	<b>12.7</b>	Providing and fixing 15Cm wide 45CM overall semi circular plain G.S sheet gutter with iron brackets 40x3mm size , bolts, nuts and washers etc . Including making necessary connections with rain water pipes complete. <b>0.8mm thck with Zinc coating not less than 275gm/Sq.M</b>	RM	588.00
340	<b>12.8</b>	Providing non asbestos high impact polypropylene reinforced cement 6mm thick corrugated sheets (as per IS 14871) roofing upto any pitch and fixing with polymer coated J or L hooks bolts and nuts 8mm dia GI plain and bitumen washer or with self drilling fastener and EPDM washers etc complete excluding the cost of purlins rafters and trusses corrugated sheets and including cutting to size and shape wherever required.	Sq.M	543.00
341	<b>12.11</b>	Extra for Providing and fixing wind tie of 40x6 mm flat iron Section	RM	132.00
342	<b>12.12</b>	Providing and fixing ridges and hips in non asbestos fibre cement high impact polypropelene reinforced roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete. <b>Corrugated serrated adjustable ridges</b>	RM	424.00
343	<b>12.13</b>	Providing and fixing non asbestos fibre cement high impact polypropelene reinforced roofing accessories with polymer coated J or L hooks , bolts and nuts and GI seam bolts and nuts GI plain and Bitumen washers or with self drilling fastener and EPDM washer etc. complete. <b>Ridge Finials</b>	Pair	148.00
344	<b>12.20</b>	Providing and laying pressed clay tiles (as per approved pattern) 20mm nominal thickness and approved size ) on roofs jointed with cement mortar 1:4 (1 cement: 4 sand) mixed with 2% integral water proofing compound laid over a bed of 20mm thick cement mortar 1:4 ( 1 cement : 4 sand) and finished neat complete	Sq.M	525.00
345	<b>12.29</b>	Providing and fixing false ceiling with 12mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formal dehyde synthetic resin bonded pressed particle board conforming to IS 3087 finished with a coat of aluminium primer on both sides and edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to a grid made out of anodised aluminium (with 15microen anodic coating ) T sections 35x15x1.5mm size main runners and cross runners 23.5x19x1.5mm fixed to main runners placed 600mm Centre to centre both ways so as to form a grid of 600mm Square . the frame work shall be suspended from ceiling by level adjusting hangers of 6mm MS rod fixed to roof slab by means of ceiling cleats. The suspenders shall be placed 600x1200 mm centre to centre including fixing to the frame with CP brace screws and applying a priming coat of zinc chromate yellow primer (aluminium frame work shall be paid separately)	Sq.M	371.00



346		Providing and fixing false ceiling with 12mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed particle board conforming to IS 3087 finished with a coat of aluminium primer on both sides and edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to a grid made out of anodised aluminium (with 15microen anodic coating ) T sections 35x15x1.5mm size main runners and cross runners 23.5x19x1.5mm fixed to main runners placed 600mm Centre to centre both ways so as to form a grid of 600mm Square . the frame work shall be suspended from ceiling by level adjusting hangers of 6mm MS rod fixed to roof slab by means of ceiling cleats. The suspenders shall be placed 600x1200 mm centre to centre including fixing to the frame with CP brace screws and applying a priming coat of zinc chromate yellow primer (Including cost of aluminium frame work )	Sq.M	1493.00
347	<b>12.38</b>	Providing lead caulked joints to sand cast iron rain water pipes and fittings:		
347a	<b>12.38.1</b>	<b>100mm dia pipes</b>	Each	457.00
347b	<b>12.38.2</b>	<b>150mm dia pipes</b>	Each	665.00
348	<b>12.40</b>	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS 13592 Type A including jointing with seal ring conforming to IS 5382 leaving 10mm gap for thermal expansion (i) Single socketed pipes		
348a	<b>12.40.1</b>	<b>75mm diameter</b>	RM	284.00
348b	<b>12.40.2</b>	<b>100mm diameter</b>	RM	366.00
349	<b>12.42</b>	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS 13592 Type A including jointing with seal ring conforming to IS 5382 leaving 10mm gap for thermal expansion		
349a	<b>12.42.3.1</b>	<b>Single Tee With Door 75x75x75mm</b>	Each	214.00
349b	<b>12.42.3.2</b>	<b>Single Tee With Door 100x100x100mm</b>	Each	286.00
349c	<b>12.42.4.2</b>	<b>Single Tee Without Door 100x100x100mm</b>	Each	286.00
349d	<b>12.42.4.1</b>	<b>Single Tee Without Door 75x75x75mm</b>	Each	214.00
349e	<b>12.42.5.1</b>	<b>Bend 75mm dia</b>	Each	134.00
349f	<b>12.42.5.2</b>	<b>Bend 110mm dia</b>	Each	187.00
349g	<b>12.42.6.1</b>	<b>Shoe Plain) 75mm dia</b>	Each	138.00
349h	<b>12.42.6.2</b>	<b>Bend 110mm dia</b>	Each	209.00
350	<b>12.44</b>	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15cm diameter and weighing not less than 440gms	Each	84.00
351	<b>12.45</b>	Providing and fixing at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S sheet and galvanised in accordance with zinc coating of grade 350 as per IS 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm dia x 40mm long with 6mm bolts to the angle hanger of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I channel with connecting clips made out of 2.64mm dia 130mm long G.I wire at every junction including fixing the gypsum board with ceiling section and perimeter channels of 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to walls/ partition with the help of rawl plug at 450mm centre to centre with 25mm long drive all screw @230mm interval including jointing and fixing to a flush finish of tapered and square edges of the board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufacturer specification and also including the cost of making opening for light fittings and grills, diffusers, cutouts made of frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of Engineer in Charge but excluding the cost of painting with: <b>12.54mm thick tapered edge gypsum board conforming to IS 2095-Part-I</b>	Sq.M	1048.00

352	12.47	Providing and fixing of UV stabilised fibre glass reinforced plastic sheet roofingup to any pitch including fixing with polymer coated J or L hooks bolts and nuts 8mm dia G.I plain /Bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. the sheets shall be manufactured out of 2400TEX panel rovigs incorporating minimum 0.3% Ultra -Violet stabiliser in resin system under approximately 2400 psi and hot cured,. they shall be of uniform pigmentation and thickness with out air pockets and shall conform to IS 10192 and IS 1286, the sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		
	12.47.1	<b>2mm thick corrugated (2.5"or 4.2" or 6") or stepdown (2"or 3" or 6") as specified.</b>	Sq.M	1246.00
353		Providing and fixing of UV stabilised fibre glass reinforced plastic sheet roofingup to any pitch including fixing with polymer coated J or L hooks bolts and nuts 8mm dia G.I plain /Bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. the sheets shall be manufactured out of 2400TEX panel rovigs incorporating minimum 0.3% Ultra -Violet stabiliser in resin system under approximately 2400 psi and hot cured,. they shall be of uniform pigmentation and thickness with out air pockets and shall conform to IS 10192 and IS 1286, the sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		
	12.47.2	<b>2mm thick Flat</b>	Sq.M	1141.00
354	12.50	Providing and fixing of Precoated galvanized profile sheets (Size, shape and pitch of corrugation as 5% total thickness (TCT) Zinc coating 120gms as per IS 277 in approved by Engineer InCharge) 0.05mm 240Mpa mm steel grade, 5-7 microns epoxy primer on both side of the sheetand polyester top coat 15-18micron minimum to avoid scratches while transportation and should be supplied in single length upto 12.0mtr or as desired by Engineer inChrg. The sheet shall be fixed using self drilling / self tapping screws of size 5.5x55mm ) with EPDM seal or with polymer coated J or L Hooks, Bolts and Nuts 8mm dia with bitumen and G.I limpet washers filled with white lead complete upto any pitch in Horizontal /vertical or curved surfaces excluding the cost of purlins rafters and trusses and including cutting to size and shape wherever required.	Sq.M	795.00
355	12.51	Providing and fixing precoated galvanized steel sheet roofing accessories 0.50m +/- 5% total coated thickness (TCT) , zinc coating 120gms as per IS 277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyster top coat 15-18 microns using self drilling/ self tapping screws with polymer coated J oR L hooks , bolts and nuts or G.I seam bolts and nuts, G.I plain and bitumen washers complete		
	12.51.1	<b>Ridges plain (500mm-600mm)</b>	RM	773.00
356		Providing and fixing precoated galvanized steel sheet roofing accessories 0.50m +/- 5% total coated thickness (TCT) , zinc coating 120gms as per IS 277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyster top coat 15-18 microns using self drilling/ self tapping screws with polymer coated J oR L hooks , bolts and nuts or G.I seam bolts and nuts, G.I plain and bitumen washers complete		
	12.51.6	<b>Gutter (600mm overall all girth)</b>	RM	885.00
357		Providing and fixing of 6mm thick poly carbonate sheet roofingup to any pitch including fixing with polymer coated J or L hooks bolts and nuts 8mm dia G.I plain /Bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. the sheets shall be manufactured out of poly carbonate sheet and polymer with Ultra -Violet stabiliser in resin system under approximately 2400 psi and hot cured,. they shall be of uniform pigmentation and thickness with out air pockets and shall conform to IS 14443: 1997 , the sheets shall be clear or pigmented, textured or smooth as specified. complete as per direction of Engineer in charge. (measurement done on Sq.m all materials and labour supplied by the agency		
		<b>6mm thick Flat</b>	Sq.M	2249.00

358	<p>Providing and fixing of 10mm thick poly carbonate sheet roofing up to any pitch including fixing with polymer coated J or L hooks bolts and nuts 8mm dia G.I plain /Bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. the sheets shall be manufactured out of poly carbonate sheet and polymer with Ultra - Violet stabiliser in resin system under approximately 2400 psi and hot cured,. they shall be of uniform pigmentation and thickness with out air pockets and shall conform to IS 14443: 1997 , the sheets shall be clear or pigmented, textured or smooth as specified. complete as per direction of Engineer in charge. (measurement done on Sq.m all materials and labour supplied by the agency <b>10mm thick Flat</b></p>	Sq.M	3128.00
359	<p>Providing and fixing at all height false ceiling excluding cost of frame work made of special sections power pressed from M.S sheet and galvanised in accordance with zinc coating of grade 350 as per IS 277 with 25mm long drive all screw @230mm interval including jointing and fixing to a flush finish of tapered and square edges of the board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufacturer specification and also including the cost of making opening for light fittings and grills, diffusers, cutouts made of frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of Engineer in Charge including the cost of painting with oil bound distemper</p> <p><b>12.54mm thick tapered edge gypsum fire resistant board conforming to IS 2095-Part-I</b></p>	Sq.M	427.00
360	<p>Providing and fixing of Armstrong mineral fibre acoustical suspended ceiling system with OPTRA(BOARD) Edge tiles with ARMSTRONG 24mm Exposed Grid the tiles having Humidity resistance (RH) of 95%, NRC 0.90 light reflectance &gt;88%, thermal conductivity K=0.32 W/mK, colour black and white fire performance class 0/class1 (BS476 pt 6&amp;7) in module size 600x600/1200 15mm/20mm suitable to green building application with recycled content of 60% (FG)&amp;54% (RW). the grid should be of Armstrong make with 24mm wide TEE section flanges colour white having rotary stitching on all T sections i-e the main runner,1200mm &amp; 6000 mm cross Tees with web height of 43,35mm and 30mm and a load carrying capacity of 23.78 kg/m<sup>2</sup>. The T sections have a galvanizing of 120gms per m<sup>2</sup> and passed through 500 hrs of salt test. the Tile &amp; Grid system used together should carry a 15year warranty as per manufactureres specification complete as per direction of Engineer in charge (Rates including Tiles and frame work with all materials labour and painting and making good the wall and frame section where ever required and also including the cost of making opening for light fittings and grills, diffusers, cutouts made of frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of Engineer in Charge</p>	Sq.M	2706.00
361	<p>Providing and fixing at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S sheet and galvanised in accordance with zinc coating of grade 350 as per IS 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm dia x 40mm long with 6mm bolts to the angle hanger of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I channel with connecting clips made out of 2.64mm dia 130mm long G.I wire at every junction including fixing the gypsum board with ceiling section and perimeter channels of 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to walls/ partition with the help of rawl plug at 450mm centre to centre with 25mm long drive all screw @230mm interval including jointing and fixing to a flush finish of tapered and square edges of the board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufacturer specification and also including the cost of making opening for light fittings and grills, diffusers, cutouts made of frame of perimeter channels suitably fixed Cost included all materials painting with one coat of primer and two coats of acrylic emulsion paint of Approved make (ASIN/DULUX) and shade . cost includes all materials labour scaffolding tools paints lead transportation etc all complete as per drawing and specification and direction of Engineer in Charge :</p>	Sq.M	1166.00
	<p><b>12.54mm thick tapered edge gypsum board (FIRE RESISTANT) conforming to IS 2095-Part-I</b></p>		

	ACOUSTIC	FALSE	CEILING		
362	<p>Providing and fixing at all height false ceiling with FLUTONE BOARD including providing and fixing of frame work made of special sections power pressed from M.S sheet and galvanised in accordance with zinc coating of grade 350 as per IS 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm dia x 40mm long with 6mm bolts to the angle hanger of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I channels 45x15x0.9mm</p> <p>Providing and fixing in position with manufacture suspended false ceiling with Flutone boards which include GI perimeter channels of size 0.55mm thick having one flange of 20mm and other flange of 30mm and web of 27mm along with perimeter of ceiling screw fixed to brick walls partition with the help of nylon sleeves and SS screws at 610mm C/C then suspending G I intermediate channels of size 45mm (0.9mm thick with two flanges of 15mm each) from the soffit at 1220 mm centres with ceiling angle width 25mm x 10mm x 0.5mm thick fixed to soffit to GI cleat and steel expansion fasteners. Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clips and direction perpendicular to the intermediate channel at 457mm centres 12.5mm tapered edge gypboard (conforming to IS 2095-1982) is then screw fixed to ceiling. section with 25mm dry wall screw at 230mm centres.. screw is done mechanically either with screw drivers or drilling machine with suitable attachment. Finally the flutone boards are to be jointed and finished so as to have flush look which includes filling and finishing the tapered &amp; square edges of the boards with jointing compound joint paper tape and two coats of Dry wall topcoats suitable for gypboard (as per recommended practices of GYPSUM India) Cost included all materials painting with one coat of primer and two coats of acrylic emulsion paint of Approved make (ASIN/DULUX) and shade . cost includes all materials labour scaffolding tools paints lead transportation etc complete in all respect as per direction of Engineer in charge.</p>			Sq.M	1238.00
363	<p>Providing and fixing of Wall lining which includes 12.5mm thick Flutone board of Gypsum India (conforming to IS 2095-1982) screw fixed to the by liner channel section (0.55mm thick having web of 41mm and two flanges of 18mm each with lips of 6mm made of GI steel) placed 610mm C/C in HG angle (0.55mm thick having two equal flanges of 25mm each made of GI steel ) fixed to the floor and ceiling with nylon sleeves and SS screw at 610mm C/C fixing bracket (0.9mm thick 29.5mm wide &amp; 195mm long ) are fixed between channel section and wall at required position and levels with the help of nylon sleeve and SS screw Finally tapered joints of the boards are jointed &amp; finished so as to have a flush look which includes filling and finishing with jointing compound joint paper tape and two coats of Dry wall Top coat suitable for Gyp board (as per recommended practice of GYPSUM India) Cost included all materials painting with one coat of primer and two coats of acrylic emulsion paint of Approved make (ASIN/DULUX) and shade . cost includes all materials labour scaffolding tools paints lead transportation etc complete in all respect as per direction of Engineer in charge.</p>			Sq.M	1486.00
364	<p>Providing and fixing Thermal insulation with resin bonded fibre glass wool conforming to IS 8183 (Twiga insul 1500/50mm or equivalent) as per manufactures specification density 24 Kg/Cum, 50mm thick wrapped in 200 G virgin polythelene bages fixed with metallic cleats (50x50x3mm) @ 60 Cm and wired mesh of 12.5mm square 24 gauge wire mesh and screwed with SS screw and nylon sleeve complete as per direction of Engineer incharge. Cost includes all materials labour scaffolding tools aplants transportation taxes etc complete in all respect.</p>			Sq.M	496.00
365	<p>Providing and fixing Thermal insulation with resin bonded fibre glass wool conforming to IS 8183 (Twiga insul 1500/50mm or equivalent) as per manufactures specification density 16 Kg/Cum, 50mm thick wrapped in 200 G virgin polythelene bags placed over false ceiling and held in position with with metallic cleats (50x50x3mm) @ 60 Cm and wired mesh of 12.5mm square 24 gauge wire mesh and screwed with SS screw and nylon sleeve complete as per direction of Engineer incharge. Cost includes all materials labour scaffolding tools aplants transportation taxes etc complete in all respect.</p>			Sq.M	367.00

366	<p>Providing and fixing of Wall panelling with 12mm thick BWR ply / MDF (Medium Density fibreboard)water proof board (11.5mm)of approved make (green /Century/ Sylvan/KIT) over the frame workof aluminium non anodized section 50.8mmx25.4mm x1.5mm thick fixed to wall with SS screw and nylon sleeves @ 600mm C/C both ways and at the last end near to the wall not greated than 450mm and comlete with leveling and adustin the wall levels with rawl plug and complete as per directionof Engineer inc harge with 12mm ply fixed over the frame and with 1.0mm thick laminates of approved make and shade (MARINO/GREEN LAM/ ROYAL TOUCH) with teak wood beading as per drawing and specification with melamine polish for Teak wood to be fixed to the wall exactly vertical to the floor and ceiling and fixed firmly to the wall cost includes all materials tax scaffolding transportation tools and plants etc ccomplete in all respect as per direction of Engineer in Charge.</p>	Sq.M	2814.00
367	<p>Providing and fixing of ARMSTRONG OPTRA Accoustical wall panelling with square edges made of fibre glass substarte 25mm thick and wrapped on the front side with an accoustically transparent and fire resistanr fabric with approved shade such as white/Ivory (Straw gold385/IVORY 380/Ash grey390)of size 600x600mm providing minimum sound absorption level of 0.90 NRC to be affixed to wall using wall panel impellers of size 102mmx77mm four nos per board fixed with SSscrew and nylon sleeve fixed over the base frame supplied bu Armstrong industries india P Ltd and construction adhesive as per manufacturers specification (45 % area of the total wall area to be panelled for optimum eco proofing) complete as per direction of Engineer incharge cost includes all materials wall impeler and or adhesive transportation TAXes scaffolding etc complete</p>	Sq.M	9214.00
368	<p>Supplying installing and testing of 40mm thick insulation at the ubder deck area of all slabs exposed to sunlight in various buildings with phenol foam kraft paper facing slab sections of size 1000x500mm density 48 Kg/Cum fixed as per specification between GI sheet and string spaced apart . All insulation work to be under taken after all supports have been taken from the slab for other services including finishing with appropriate interior finishing such as wall putty etc complete as per direction of Engineer incharge</p>	Sq.M	592.00

## VOLUME-II

<b>FINISHING WORK</b>				
369	13.0			
370	13.1.1	12mm cement plaster of mix 1:4 (1 cement: 4 Sand)	Sq.M	122.00
371	13.1.2	12mm cement plaster of mix 1:6 (1 cement: 6 Sand)	Sq.M	107.00
372	13.2.1	15mm cement plaster of mix 1:4 (1 cement: 4 Sand) over rough side of half brick work	Sq.M	143.00
373	13.2.2	15mm cement plaster of mix 1:6 (1 cement: 6 Sand)over rough side of half brickwork	Sq.M	125.00
374	13.3.1	20 mm cement plaster of mix 1:4 (1 cement: 4 Sand)	Sq.M	174.00
375	13.3.2	20mm cement plaster of mix 1:6 (1 cement: 6 Sand)	Sq.M	150.00
376	13.7.1	12mm cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement: 3 Sand)	Sq.M	170.00
377	13.7.2	12mm cement plaster finished with a floating coat of neat cement of mix 1:4 (1 cement: 4 Sand)	Sq.M	155.00
378	13.8.1	15 mm cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement: 3 Sand)	Sq.M	193.00
379	13.8.2	15mm cement plaster finished with a floating coat of neat cement of mix 1:4 (1 cement: 4 Sand)	Sq.M	175.00
380	13.12	18mm cement plaster in two coats under layer of 12mm thick cement plaster 1:5 (1 cement:5 sand) and a top layer of 6mm thick cement plaster 1:3 (1 cement:3 sand) finished rough with spouge	Sq.M	184.00
381	13.16.1	6mm cement plaster of mix 1:3 (1 cement: 3 Sand)	Sq.M	99.00
382		6mm cement plaster of mix 1:4 (1 cement: 4 Sand)	Sq.M	92.00
383	13.18	Neat cement Punning	Sq.M	34.00
384	13.21	Extra for prviding and mixing water proofing materials in cement plaster work in proportion recommended by the manufactureres.	Per bag of 50kg cement	30.00
385	13.22	Extra for plastering exterior walls of height more than 10m from ground level for every additional height of 3 mtr or part there of.	Sq.M	27.00
386	13.26	Providing and applying plaster of paris putty of 2mm thick ness over plastered surface to prepare the surface and even and smooth complete.	Sq.M	107.00
387		Providing and finishing wall surface with acrylic wall care putty (water based) of approved make (Birla or Equivalent) and finished smooth and even surface to receive painting including cost of scaffolding staging charges with all cost of materials taxes labour T&P etc complete	Sq.M	193.00
388	13.31.1	Pointing on brick with cement mortar 1:3 (1cement: 3 sand) Raised and cut pointing	Sq.M	120.00
389		Pointing on brick with cement mortar 1:4 (1cement: 4 sand) Raised and cut pointing	Sq.M	115.00
390	13.33.1	Pointing on stone work with cement mortar 1:3 (1cement: 3 sand) Raised and cut pointing	Sq.M	187.00
391		Pointing on Stone work with cement mortar 1:4 (1cement: 4 sand) Raised and cut pointing	Sq.M	183.00
392	13.37	White washing with KATNI lime to give an even shade		
392a	13.37.1	<b>New work (Three or more coat</b>	Sq.M	14.00
392b	13.38	<b>on walls one coat</b>	Sq.M	6.00
393	13.39	Colour washing such as green blueor buff to give an even shade		
393a		<b>New work (Two or More coat with a base coat of white washing with lime</b>	Sq.M	18.00

394	13.40	Distemping with dry distemper of approved brand and manufacturer (two or more coats) and of required shade on new work over and including priming coat of of whitening to give an even shade	Sq.M	52.00
395	13.41	Distemping with oil bound washable distemper of approved brand and manufacturer to give an even shade		
		<b>New Work( Two or more coats ) over and including priming coat with cement primer</b>	Sq.M	82.00
396	13.42	Distemping with 1st quality acrylic distemper (readymade) of approved manufacture and of required shade and colour complete, as per manufacturer's specification.		
		<b>New Work( Two or more coats )</b>	Sq.M	44.00
397	13.43	Applying one coat of cement primer of approved brand and manufacturer on wall surface		
		<b>Cement primer</b>	Sq.M	35.00
398	13.44	Finishing walls with water proofing cement paint of required shade		
		<b>New work (two or more coats applied @3.84 Kg/Sq.M)</b>	Sq.M	44.00
399	13.45	Finishing walls with textured exterior paint of required shade:		
		<b>New work (two or more coat applied @3.28kg/10 Sq.M) over and including base coats of water proofing cement paint applied @ 2.2 Kg/10 Sq.M</b>	Sq.M	212.00
400	13.46	Finishing wall with acrylic smooth exterior paint of required shade:		
		<b>New work (two or more coat applied @1.67kg/10 Sq.M) over and including base coats of water proofing cement paint applied @ 2.2 Kg/10 Sq.M</b>	Sq.M	90.00
401	13.47	Finishing walls with premium acrylic smooth exterior paint with silicone additive of required shade		
		<b>New work (two or more coat applied @1.43kg/10 Sq.M) over and including base coats of water proofing cement paint applied @ 2.2 Kg/10 Sq.M</b>	Sq.M	83.00
402	13.48	Finishing walls with deluxe multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:		
402a	13.48.1	<b>New work (two or more coat applied @1.25lit/10 Sq.M) over and including one coat of special primer applied @0.75 Ltr/10 Sq.M</b>	Sq.M	94.00
403		Finishing walls with deluxe multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:		
403a	13.48.2	<b>New work (One or more coat applied @1.25lt/10 Sq.M) over and including one coat of special primer applied @0.75 Ltr/10 Sq.M</b>	Sq.M	87.00
404	13.50.1	Applying priming coat with ready mixed Pink or gray primer of approved brand and manufacturer on Wood work (Hard and soft Wood)	Sq.M	34.00
405	13.50.2	Applying priming coat with ready mixed Aluminium primer of approved brand and manufacturer or resinous wood and plywood.	Sq.M	34.00
406	13.50.4	Applying priming coat with ready red oxide zinc chromate primer of approved brand and manufacturer on steel galvanised iron/ steel works.	Sq.M	28.00
407	13.56	Painting (two or more coats ) on rain water soil and vent pipes and fittings with Synthetic enamel paint of approved brand and manufacturer and required colour over a priming coat of approved steel primer on new work		
407a	13.56.1	<b>100mm dia pipe</b>	RM	34.00
407b	13.56.2	<b>150mm dia pipe</b>	RM	50.00
408	13.59	Coal taring two coats on new work using 0.16 and 0.12 litre tar per Sq.M in the first coat and second coat respectively	Sq.M	43.00
409	13.60	Wall painting with plastic emulsion paint of approved brand manufacture to give an even shade		
		<b>Two or more coats on new work</b>	Sq.M	79.00
410	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:		
		<b>Two or more coats on new work</b>	Sq.M	70.00
411	13.63	Painting with aluminium enamel paint of approved brand and manufacture to give an even shade:		
		<b>Two or more coats on new work</b>	Sq.M	66.00
412	13.64	Painting with acid proof paint of approved brand and manufacture to give an even shade:		
		<b>Two or more coats on new work</b>	Sq.M	65.00
413	13.65	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade		

414	13.67	<b>Two or more coats on new work</b> Varnishing with Varnish of approved brand and manufacture :	Sq.M	53.00
414a	13.67.1	<b>Two or more coats of glue sizing with copal varnish over an under coat of flattening varnish.</b> Varnishing with Varnish of approved brand and manufacture :	Sq.M	118.00
415a	13.67.2	<b>Two or more coats of glue sizing with spar varnish over an under coat of flattening varnish.</b> French spirit polishing :	Sq.M	111.00
416	13.68	<b>two or more coats on new works including a coat of wood filler.</b>	Sq.M	175.00
417	13.69	Polishing on wood work with ready made wax polish of approved brand and manufacture: <b>New work</b>	Sq.M	70.00
418	13.70	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture	Sq.M	31.00
419	13.71	Lettering with black japan paint of approved brand and manufacture	1 letter of 1 Cm Height	2.00
420	13.76	Forming groove of uniform size from 12x12mm to 25x15mm in plastered surface as per approved pattern using wooden battens , nailed to the under layer including theremoval of wooden batten, repairs to the edges of plaster panel and finishing the groove complete as per specification and direction of Engineer in Charge	RM	59.00
421		Providing and plastering 6mm thick cement plaster in CM 1:4 with admixture of plastocrete or equivalent (@100ml/bag of cement) and with painting of two coats of SIKA LATEX or equivalent (150ml/Sq.M) over the plastered surface before plastering including racking out the ceiling and painting two coats of ARMATEX or Equivalent over corroded steel and complete as per direction of Engineer in Charge.	Sq.M	221.00
422		15 mm thick cement plaster in CM 1:4 with chemical admixture for water proofing such as PLASTOCRETE PLUS/CICOCRETE/Equivalent as per manufacturers manual for out side plastering including racking out and cleaning the wall surface with wire brush and painting of SIKA LATEX two coats(@ 150ml/Sq.M) before plastering complete as per direction of Engineer In charge. Including all material and labour for racking and plastering.	Sq.M	200.00
423	13.79	Extra for addition of synthetic polyester triangular fibre (RECRON 3S)of length 6mm effective diameter 10-40microns and specific gravity of 1.34 to 1.40 in cment plaster / mortar by using 125gms of synthetic polyester triangular fibre for 50 kg of cment used in cement mortar as per direction of Engineer in charge.	Per bag of 50kg cement	59.00
424	13.81.2	Distempepring with 1st quality acrylic distemper having VOC (volatile organic compound) content less than 50grams of approved brand and manufactures including applying additional coats where ever required to achive even shade and colour <b>New Work( Two or more coats )</b>	Sq.M	51.00
425	13.82.2	Wall painting with acrylic emulsion paint (DULUX/ ASIAN)having VOC (volatile organic compound) content less than 50grams of approved brand and manufactures including applying additional coats where ever required to achive even shade and colour <b>New Work( Two or more coats )</b>	Sq.M	62.00
426	13.84.2	Painting with synthetic enamel paint (DULUX/ ASIAN)having VOC (volatile organic compound) content less than 150grams of approved brand and manufactures including applying additional coats where ever required to achive even shade and colour <b>New Work( Two or more coats )</b>	Sq.M	62.00
427	13.85.3	Painting with water thinnable cement priimer on wall surface having VOC (volatile organic compound) content less than 50grams of approved brand and manufactures including applying additional coats where ever required to achive even shade and colour	Sq.M	29.00
428		Finishing walls with inishing wall with final coat of ultra permsand with chips ( to offer grooved finish) over a coat of ultra permsand base coat without chips over a acrylic primer base( as per approved shade) complete as per direction of Engineer in charge (TEXTURE PAINT FROM ULTRA TECH) paint exteriors using primer as per manufaturers specifications:	Sq.M	467.00



429	14.1	Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5Sq.Mand under including cutting the patches in proper shape racking out joints and repairing and plastering the surface of the wall s complete including disposal of rubbish to the dumping ground with in 50mtr lead		
429a		<b>Cement Mortar 1:4</b>	Sq.M	183.00
430		Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5Sq.Mand under including cutting the patches in proper shape racking out joints and repairing and plastering the surface of the wall s complete including disposal of rubbish to the dumping ground with in 50mtr lead		
430a		<b>Cement Mortar 1:6</b>	Sq.M	164.00
431	14.2	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for hold fasts embedding hold fasts embedding hold fast in cement concrete blocks with cement concrete 1:3:6 (1 cement:3sand: 6 coarse aggregate) painting two coats of approved wood /steel preservatives to sides of thchowkhats and making good damages to walls and floors as required complete including disposal of rubbish to the dumping ground within 50mtr lead:		
431a	14.2.1	<b>Door chowkhat</b>	Each	580.00
431b	14.2.2	<b>Window chowkhat</b>	Each	354.00
431c	14.2.3	<b>Clearstorey Window Chowkhats</b>	Each	203.00
432	14.3	Fixing chowkhat in existing opening in Brick/RCC wall with hold fastener/Dash fastener/Chemical fastener of appropriate size (3 Nos each vertical member of door chowkhat and 2 nos on each vertical and 1 nos on each horizontal member of window chowkhat) including cost of fasteners	Each	286.00
433	14.4	Making opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damamges to the walls flooring and jambs complete to match existing surface including disposal of mulba /rubbish to the nearest dumping ground		
		<b>for door/window/clearstorey window</b>	Sq.M	358.00
434	14.5	Renewing glass panes with Putty and nails wherever necessary:		
434a	14.5.1	<b>Float glass panes of thickness 4mm</b>	Sq.M	972.00
435		Renewing glass panes with Putty and nails wherever necessary:		
435a	14.5.2	<b>Float glass panes of thickness 5.0mm</b>	Sq.M	1010.00
436		<b>Float glass panes of thickness 8.0mm</b>	Sq.M	1423.00
437	14.10	Refixing old glass panes with putty and nails	Sq.M	295.00
438	14.9	Renewal of old putty of glass panes (Length)	RM	23.00
439	14.12	Providing and fixing 16mm M.S Fan clamps of standard shape and size in existing R.C.C. slab including cutting chases and making good and painting exposed portion of the clamps complete	Each	202.00
440	14.17	Racking out joints in lime or cement mortar and repairing the surface for repointing or replastering including disposal of rubbish to the dumping ground within 50mtr lead.	Sq.M	18.00
441		Taking out wind ties from roof including cutting out rusted bolts, nuts etc and removing materials to any distance within compound and stacking and refixing of old tie with new fittings including painting two or more coatswith anticorrosive bitumastic paint of approved brand and manufacture over and including priming coat of ready mixed zinc chromate yellow primer of approved brand	RM	64.00
442	14.30	Providing and fixing M.S round or square bars with M.S flats at required spacing wooden frmaes of windows and clearstorey windows	Kg	80.00
443	14.42	White washing with KATNI lime to give an even shade		
443a	14.42.1	<b>Old Work (Two or More coats)</b>	Sq.M	8.00
443b	14.42.2	<b>Old Work (one or More coats)</b>	Sq.M	5.00
444	14.43	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repair to scratches etc complete	Sq.M	5.00
445	14.46	Removing dry or oil bound distemper , water proofing cement paint and the like by scrapping sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	Sq.M	7.00
446	14.45	Distemping with oil bound washable distemper of approved brand and manufacturer to give an even shade		
		<b>Old work ( one or more coat)</b>	Sq.M	28.00

447	14.53	Wall painting with plastic emulsion paint of approved brand manufacture to give an even shade <b>One or more coat over old Work</b>	Sq.M	51.00
448	14.54	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: <b>One or more coat over old Work</b>	Sq.M	45.00
449	14.55	Painting with aluminium enamel paint of approved brand and manufacture to give an even shade: <b>One or more coat over old Work</b>	Sq.M	42.00
450	14.56	Painting with acid proof paint of approved brand and manufacture to give an even shade: <b>One or more coat over old Work</b>	Sq.M	42.00
451	14.57	Painting with black anti-corosive bitumastic paint of approved brand and manufacture to give an even shade <b>One or more coat over old Work</b>	Sq.M	35.00
452	14.58	French spirit polishing : <b>One or more coat over old Work</b>	Sq.M	84.00
453	14.59	Polishing on wood work with ready made wax polish of approved brand and manufacture: <b>old Work</b>	Sq.M	36.00
454	14.69	Varnishing with Varnish of approved brand and manufacture :	Sq.M	45.00
454a	14.69.1	<b>One or more coats with copal varnish</b>	Sq.M	45.00
455		Varnishing with Varnish of approved brand and manufacture :	Sq.M	45.00
455a	14.69.2	<b>One or more coats with spar varnish .</b>	Sq.M	45.00
456	14.60	Re-Lettering with black japan paint of approved brand and manufacture	1Letter of 1 Cm height	1.00
457	14.63	Distempering with 1st quality acrylic distemper (readymade) of approved manufacture and of required shade and colour complete, as per manufacturer's specification. <b>New Work( Two or more coats )</b>	Sq.M	26.00
458	14.65	Finishing walls with textured exterior paint of required shade: <b>New work (two or more coat applied @3.28kg/10 Sq.M)</b>	Sq.M	192.00
459	14.66	Finishing wall with acrylic smooth exterior paint of required shade: <b>New work (two or more coat applied @1.67kg/10 Sq.M) on existing cement paint</b>	Sq.M	64.00

## 15.0 DISMANTLING

460	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of materials with in 50mtr lead as per direction of Engineer inCharge.		
460a	15.2.1	<b>Cement concrete 1:3:6 or richer Mix</b>	Cum	610.00
461		Demolishing cement concrete manually/ by mechanical means including disposal of materials with in 50mtr lead as per direction of Engineer inCharge.		
461a	15.2.2	<b>Cement concrete 1:4:8 or leanear Mix</b>	Cum	376.00
462	15.3	Dismantling R.C.C. work, including stacking of steel bars and disposal of unservicable amterials within 50mtr lead as per direction of Engineer incharge.	Cum	890.00
463	15.4	Demolishing R.B work manually/ by mechanical means including stacking of steel bars and disposal of unservicable materials within 50mtr lead as per direction of Engineer in Chare.	Cum	795.00
464	15.5	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B work (Payment shall be made on the cross sectional area of R.C.C. or R.B work) as per direction of Engineer in Charge.	Sq.M	337.00
465	15.7	Demolishing brickwork manually/ by mechanical means including stacking of servicable materials and disposal of unservicable materials with in 50mtr lead as per direction of Engineer in Charge	Cum	515.00
466	15.9	Demolishing stone rubble masonry manually/ by mechanical means including stacking of servicable materials and disposal of unservicable materials with in 50mtr lead as per direction of Engineer in Charge <b>In cement Mortar</b>	Cum	614.00

467	15.10	Dismantling dressed stone work ashlar stone work, marble work, Precast concrete work manually/ by mechanical means including stacking of servicable materials and disposal of unservicable materials within 50mtr lead as per direction of Engineer in Charge.		
		<b>In cement Mortar</b>	Cum	718.00
468	15.12	Dismantling doors windows and clearstorey windows (steel or wood shutter) including chowkaths architrave holdfasts etc. complete and stacking within 50mtr lead"		
468a	15.12.1	<b>Of area 3 Sq.M and below</b>	Each	104.00
469		Dismantling doors windows and clearstorey windows (steel or wood shutter) including chowkaths architrave holdfasts etc. complete and stacking within 50mtr lead"		
469a	15.12.2	<b>Of area beyond 3 Sq.M</b>	Each	143.00
470	15.13	Taking out doors windows and clearstorey window shutters (Steel or Wood) including stacking within 50mtr lead:		
470a	15.13.1	<b>Of area 3 Sq.M and below</b>	Each	40.00
471		Taking out doors windows and clearstorey window shutters (Steel or Wood) including stacking within 50mtr lead:		
471a	15.13.2	<b>Of area beyond 3 Sq.M</b>	Each	53.00
472	15.14	Dismantling wood work in frames, trusses purlins and rafters upto 10mtr span and 5 mtr Height including stacking of the materials within 50mtr lead		
		<b>Of cross sectional area 40 Square CM and above</b>	Cum	1276.00
473	15.18	Dismantling steel work in builtup sections in angle tees flats and channel including all gusset plates bolts nuts, cutting rivets welding etc including dismembering and stacking within 50mtr lead.		
		<b>Of cross sectional area 40 Square CM and above</b>	Kg	1.53
474	15.20	Extra for dismantling trusses rafters purlins etc of steel work for every additional height of one mtr or part thereof beyond 5 mtrs		
		<b>Of cross sectional area 40 Square CM and above</b>	Kg	0.22
475	15.23	Dismantling tile work in floors laid in cement mortar including stacking materials within 50mtr lead		
		<b>For thickness of tile above 10mm and upto 25mm</b>	Sq.M	26.00
476	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of servicable material and disposal of unservicable material within 50mtr lead.	Sq.M	67.00
477	15.26	Demolishing brick tiles covering in terracing including stacking of servicable materials and disposal of unservicable materials within 50mtr lead.	Sq.M	31.00
478	15.28	Dismantling roofing including ridges hips valleys and gutters etc and stacking the materials within 50mtr lead of		
478a	15.28.1	<b>G.S.Sheets</b>	Sq.M	46.00
479		Dismantling roofing including ridges hips valleys and gutters etc and stacking the materials within 50mtr lead of		
479a	15.28.2	<b>Asbestos Sheet</b>	Sq.M	21.00
480	15.34	Dismantling and stacking within 50mtr lead , fencing posts or struts including all earth work and dismantling of concrete etc in base of :		
		<b>R.C.C. Fence post</b>	Each	83.00
481	15.36	Dismantling barbed wire or flexible rope in fencing including making rolls and stacking within the 50 mtr lead		
		<b>IRON. Fence post</b>	Kg	9.00
482	15.38	Dismantling expanded metals or IRC fabrics with necessary battens and beading including stacking the servicable materials within 50 mtr Lead	Sq.M	20.00
483	15.39	Dismantling wooden boarding in lining of wall and partition walls excluding supporting member but including stacking within 50mtr lead:		
		<b>Thickness above 25mm upto 40mm</b>	Sq.M	25.00
484	15.40	Dismantling precast concrete or stone slab in walls partition walls etc including stacking within 50mtr lead.		
		<b>Thickness upto 50mm thick</b>	Sq.M	75.00
485	15.41	Dismantling cement asbestos, celotax or other hard board ceiling or partition walls including stacking of servicable materials and disposal of unservicable materials within 50mtr lead.		
		<b>Thickness upto 50mm thick</b>	Sq.M	16.00
486	15.42	Dismantling of CI or asbestos rain water pipe with fittings and clamps including stacking the materials within 50m lead :		

486a	15.42.1	<b>75mm to 80mm dia pipe</b>	RM	19.00
487		Dismantling of CI or asbestos rain water pipe with fittings and clamps including stacking the materials within 50m lead :		
487a	15.42.2	<b>100mm to 110 mm dia pipe</b>	RM	19.00
488		Dismantling of CI or asbestos rain water pipe with fittings and clamps including stacking the materials within 50m lead :		
488a	15.42.3	<b>150mm dia pipe</b>	RM	20.00
489	15.43	Dismantling manually/ by mechanical means including stacking of servicable materials and disposal of unservicable materials with in 50mtr lead as per direction of Engineer in Charge:		
489a	15.43.1	<b>Water Bound Macadam Road</b>	Sq.M	56.00
490		Dismantling manually/ by mechanical means including stacking of servicable materials and disposal of unservicable materials with in 50mtr lead as per direction of Engineer in Charge:		
490a	15.43.2	<b>Bituminous Road</b>	Sq.M	109.00
491	15.44	Dismantling G.I pipes (External work) including excavation and refilling of trenches after taking out the pipes manually /by mechanical mean including stacking of pipes within 50mtr lead as per direction of Engineer in Charge:		
491a	15.44.1	<b>15mm to 40mm dia nominal bore</b>	RM	41.00
492		Dismantling G.I pipes (External work) including excavation and refilling of trenches after taking out the pipes manually /by mechanical mean including stacking of pipes within 50mtr lead as per direction of Engineer in Charge:		
492a	15.44.2	<b>Above 40mm nominal bore</b>	RM	47.00
493	15.45	Dismantling C.I pipes including excavation and refilling of trenches after taking out the pipes manually /by mechanical means , breaking lead joints, melting of lead and making into blocks including stacking of pipes within 50mtr lead as per direction of Engineer in Charge:		
493a	15.45.1	<b>Upto 150mm diameter</b>	RM	108.00
494		Dismantling C.I pipes including excavation and refilling of trenches after taking out the pipes manually /by mechanical means , breaking lead joints, melting of lead and making into blocks including stacking of pipes within 50mtr lead as per direction of Engineer in Charge:		
494a	15.45.2	<b>Above 150mm upto 300MM dia</b>	RM	146.00
495		Dismantling C.I pipes including excavation and refilling of trenches after taking out the pipes manually /by mechanical means , breaking lead joints, melting of lead and making into blocks including stacking of pipes within 50mtr lead as per direction of Engineer in Charge:		
495a	15.45.3	<b>Above 300mm diameter</b>	RM	198.00
496	15.49	Taking out C.I cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually / by mechanical mean and stacking of usefule materials near the site and disposal of unservicable materials within 50mtr lead as per direction of Engineer in Charge.	Each	181.00
497	15.52	Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unservicable materials within 50mtr lead.	Each	253.00
498	15.53	Dismantling of C.I sluice valve including stacking of useful materials within a lead of 50mtr		
498a	15.53.1	<b>Upto 150mm diameter</b>	Each	77.00
499		Dismantling of C.I sluice valve including stacking of useful materials within a lead of 50mtr		
499a	15.53.2	<b>above 150mm diameter</b>	Each	317.00
500	15.56	Dismantling old plaster or skirting racking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50mtr lead	Sq.M	14.00
501	15.57	Dismantling aluminium /gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unservicable materials and stacking of servicable materials within 50mtr lead as directed by Engineer in Charge.	Sq.M	16.00
502		Dismantling of 50mm/60mm/80mm thick hydraulic pressed precast interlocking tiles flooring laid in cement mortar /compacted sand including stacking of servicable material and disposal of unservicable material within 50mtr lead.		54.00

	16.0	<b>ROAD WORK</b>		
503	16.1	Preparation and consolidation of sub grade with power road roler of 8-12tonne capacity after excavating earth to an average of 22.5Cm depth , dressing to camber and consolidation with road roller including making good the undulations etc and rerolling the sub grade and disposal of surplus earth lead upto 50mtrs	Sq.M	70.00
504	16.3	Supplying and stacking of Aggregate at Site		
505	16.3.1	<b>Above 53mm upto 90mm size stone aggregate</b>	Cum	1715.00
506	16.3.3	Supplying and stacking of Aggregate at Site <b>53mm to 22.4mm size stone aggregate</b>	Cum	1735.00
	16.3.10	Supplying and stacking at site <b>Moorum</b>	Cum	562.00
507	16.4	Laying , spreading and compacting stone aggregate of specified size to WBM specification including spreading in uniform thickness, hand packing, rolling with 3wheeled road / vibratory roller 8-10 tonne in stages to prpoer grade and camber applying and brooming requisite type of screening/ binding materials to fillup interstics of coarse aggregate watering and compacting to required density.	Cum	590.00
508	16.9	Scarifying metalled (water bound) road surface including disposal of rubbish lead upto 50m and consolidation of the aggregate received from scarifying with power roller of 8 tonne to 10 tonne capacity.	Sq.M	21.00
509		Supplying at Site: R.C.C. standard posts /Struts/rails/Pales of Mix 1:1.5:3 (1 cement: 1.5 sand: 3 coarse aggregate) with wooden plugs or 6mm bar nibs, wherever required as per drawing and direction of Engineer in Charge cost of earth work and concrete work to be paid separately)	Each	802.00
510	16.17	Fencing with R.C.C post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire 14.5 kg/100 meteres (minimum between two posts fitted and fixed with G.I staple on wooden plugs or G.I binding wire tied to 6mm bar nibs fixed while casting the post (Cost of R.C.C. post struts, earth work and concrete to be paid for separately):- payment to be made per metre cost of total length of barbed wire used	Rm	21.00
511	16.25	Surface dressing on new surface with paving bitumen of grade A-90/S-90 of approved quality using 2.25Kg of bitumen per Sq.M with 1.65Cum of stone chipping 13.2mm nominal size per 100 Sq.M of road surface including consolidation with road rolller of 6-8 tonne capacity complete:	Sq.M	215.00
512	16.31	Providing and applying tack coat using bitumen emulsion (rapid setting) complying with IS 8887-1995, sparying the bitumen emulsion with mechanically operated spray unit, cleaning and preparation the existing road surface as per specifications:		
	16.31.1	<b>On WBM@ 0.4Kg/Sq.M</b>	Sq.M	32.00
513		Providing and applying tack coat using bitumen emulsion (rapid setting) complying with IS 8887-1995, sparying the bitumen emulsion with mechanically operated spray unit, cleaning and preparation the existing road surface as per specifications:		
	16.31.2	<b>On Bituminous surface @0.25Kg/Sq.M</b>	Sq.M	22.00
514	16.32	2Cm premix carpet surfacing with 1.8Cum and 0.9Cum of stone aggregate of 13.22mm size and 11.2mm size respectively per 100 Sq.M and 52kg and 56 kg of hot bitumen per cum of stone chipping of 13.2mm and 11.2 mm size respetively including a tack coat with hot straight run bitumen including consolidation with road roller of 6-9 tonne capacity etc complete (Tack coat to be paid separately) <b>With paving asphalt 80/100 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt</b>	Sq.M	193.00
515	16.33	2.5 Cm premix carpet surfacing with 2.25Cum and 1.12Cum of stone aggregate of 13.22mm size and 11.2mm size respectively per 100 Sq.M and 52kg and 56 kg of hot bitumen per cum of stone chipping of 13.2mm and 11.2 mm size respetively including a tack coat with hot straight run bitumen including consolidation with road roller of 6-9 tonne capacity etc complete (Tack coat to be paid separately) <b>With paving asphalt 80/100 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt</b>	Sq.M	233.00

516	16.40	Providing and laying seal coat of premixed fine aggregate (passing 2.36mm and retained on 180micron sieve) with bitumen using 128Kg of bitumen of grade 80/100 bitumen per cum of fine aggregate and 0.60Cum of fine aggregate per 100 Sq.M of road surface including rolling and finishing with road roller all complete.	Sq.M	86.00
517	16.53	Providing and fixing concentrina coil fencing with required dia 600mm upto 3.0mtr height of wall with existing angle iron "Y" shaped placed 2.4m to 3.0mtr apart and 9horizontal R.B.T stud tied with G.I staple and G.I clips to retain horizontal including necessary bolts or G.I barbed wire tied to angle iron all complete as per direction of Engineer in Charge with reinforced barbed tape (R.B.T)/ spring core (2.5mm thick) wire high tensile strength of 165Kg/ Sq.MM with tape(0.52mm thick) of supreme make or equivalent and weight 43.478 Gm/ mtr (Cost of M.S angle, C.C. block shall be paid separately)	Rm	329.00
518	16.56	Providing and laying Dense bituminous concrete on prepared surface with specified grade ed stone aggregate for wearing course including loading of aggregate with FE loader, hot mixing of bitumen with filler and stone stone aggregate in hot mix plant, transporting the mixed materials by tippers to th pavers and lying the mixed materials with mechanical paver finisher fitted with electronic sensing device to the required level and grade and rolling with road rollers as per MORTH specification to achive the desired density and compaction but excluding cost of primer/tack coat <b>40/50mm compacted thickness with bitumen grade 60/70 @5.5% and lime @3% (percentage by weight of total mix)</b>	Cum	13771.00
519	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver blocks of M-30 grade made by block making machine with strong vibratory compaction of approved size and design /shape laid in required colour and pattern over and including 50mm thick compacted bed of course sand , filling the joints with sand etc compleet as per direction of Engineer in Charge.	Sq.M	889.00
<b>MORTH SPECIFICATION</b>				
520	1.1	Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum. (Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip) NOTE: Unloading will be by tipping.	Cum	42.00
521	305	Construction of Subgrade and Earthen Shoulders Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2	Cum	174.00
522	305.3.4	Compacting original ground supporting sub-grade Loosening of the ground upto a level of 500 mm below the sub-grade level, watered, graded and compacted in layers to meet requirement of table 300-2 for sub-grade construction.	Sq.M	57.00
523	305	Construction of Embankment with Material obtained from Borrowpits Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2. (Compensation for earth will vary from place to place and will have to be assessed realistically as per particular ground situation. In case earth is available from Govt. land, compensation for earth will not be required. The position is required to be clearly stated in the cost estimate.)	Cum	137.00
524	301	Excavation for roadway in soil using manual means including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto1000 metres. NOTE:In case there is a situation where the cross-section is of cut and fill and cut earth is required to be used in embankment in the immediate vicinity, the item of carriage in the truck shall be omitted.	Cum	132.00
525	301	Excavation in ordinary rock using manual means including loading in a truck and carrying of excavated material to embankment site with in all lifts and leads upto 1000 metres NOTE:In case there is a situation where the cross-section is of cut and fill and cut earth is required to be used in embankment in the immediate vicinity, the item of carriage in the truck shall be omitted.	Cum	188.00
526	301	Excavation for road way in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead50 metres), including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections.	Cum	159.00

527	406	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. NOTE: 1. Though vibratory roller is required only for 3 hours as per norms, the same is required to be available at site for 6 hours to match with other machines. The usage rates of vibratory roller may be multiplied with a factor of 0.65 2. As three wheeled smooth steel rollers are commonly in use, the same has been provided as an alternative which can be used if the thickness of individual layer does not exceed 100 mm..	Cum	2034.00
528	401	Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401		
528a		grading-I Material	Cum	2003.00
528b		grading-II Material	Cum	2011.00
528c		grading-III Material	Cum	2009.00
529	502	Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means. NOTE: Bitumen primer has been provided @ 0.60 kg per sqm as per clause 502.8. Payment shall be made with adjustment, plus or minus, for the variation between this quantity and the actual quantity approved by the Engineer after the preliminary trials referred to in clause No. 502.4.3.	Sq.M	40.00
530	503	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom. NOTE: 1. Bitumen emulsion has been provided @ 0.20 kg per sqm as per clause 503.8. Payment shall be made with adjustment, plus or minus, for the variation between this quantity and actual quantity approved by the Engineer after preliminary trials referred to in clause No. 503.4.3 2. An output of 3500 sqm has been considered in case of prime coat and tack coat which can be covered by bituminous courses on the same day.	Sq.M	14.00
531	504	Providing and laying bituminous macadam with 100-120 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with bituminous binder, transported to site, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction	Cum	6985.00
532	507	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.	Cum	8757.00
533	508	Providing and laying semi dense bituminous concrete with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.5 to 5 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 508 complete in all respects	Cum	9891.00
534	510	Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller	Sq.M	102.00
535	513	Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A and B seal coats NOTE: Since seal coat is provided immediately over the bituminous layers, mechanical broom for clearing has not been catered.	Sq.M	79.00

536	834	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.	Sq.M	603.00
537		Providing and fixing of road stud 100x 100 mm, die-cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS 873 part 4:1973		
537a		Reflecting road studs	Each	326.00
537b		Solar Road studs with 6 lights (Solar powered road studs)	Each	551.00
538		Construction of granular sub base by providing L.D.Slag spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting etc complete as per direction of Engineer In Charge.	Cum	427.00
539		Providing weep holes in brick masonry plain/ reinforced cement concrete abutment wing wall /return wall with 75mm dia PVC pipe extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and technical specifications and direction of Engineer in charge	Each	147.00
540		Back filling behind the abutment , wing wall and return wall complete as per draawing and technical specifications as per direction of Engineer incharge (Moorum)	Cum	699.00
541		Providing and laying of filter media with granular materials/ stone crushed aggregates satisfying the requirements as per direction of Engineer incharge (Stone chips)	Cum	1901.00
542		Providing and laying boulders apron on river bed for protection against scour with stone boulder weighing not less than 40kg each complete as per drawing and Technical specification	Cum	1939.00

## 17.0 SANITARY INSTALLATION

543	17.1	Providing and fixing water closet squatting pan (Indian type W.C.Pan) with 100mm sand cast iron Por S trap , 10litr low level white P.V.C flushing cistern with manually controlled device (handle lever) conforming to IS 7231 with all fitiings and fixtures complete including cutting and making good the walls and floors where ever required : including clamps and fixtures complete as per direction of Engineer in charge <b>White Vitreous china orissa pattern W.C pan of size 580x440mm with integral type foot rests.</b>	Each	4050.00
544	17.2	Providing and fixing white vitreous china pedestral type water closet s(European typeW.C.Pan)with seat lid, 10litr low level white P.V.C flushing cistern with manually controlled device (handle lever) conforming to IS 7231 with all fitiings and fixtures complete including cutting and making good the walls and floors where ever required : including clamps and fixtures complete as per direction of Engineer in charge <b>W.C.Pan with ISI marked White solid plastic seatand lid</b>	Each	4415.00
545	17.4	Providing and fixing White vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass union and G.I clamps complete including painting of Fittings and brackets cutting and making good the walls and floors wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>One urinal basin with 5litre white P.V.C automatic flushing cistern.</b>	Each	4113.00
546	17.5	Providing and fixing White vitreous china flat back half stall urinal of size 580x380x350 / 590x302x365 or as available mm with automatic flushing cistern with fittings standard size cpbrass flush pipe and CP brass spreaders with brass union and clamps (All in CP brass)with waste fitting asper IS 2556, Ci trap with outlet grating and other couplings in CP brass complete including painting of Fittings and brackets cutting and making good the walls and floors wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>Single half stall with 5litre white P.V.C automatic flushing cistern.</b>	Each	9090.00



547	17.6	Providing and fixing one piece construction white vitreous china squatting plate with integral longitudinal flushing pipe, white P.V.C automatic flushing cistern with fittings standard size G.I flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and CP brass coupling complete including painting of fittings and cuttings and making good the walls floors etc wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>Single squatting plate with 5litre PVC automatic flushing cistern</b>	Each	4156.00
548	17.7	Providing and fixing of wash basin with C.I brackets, 15mm Cp brass pillar taps 32mm Cpbrass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: including clamps and fixtures complete as per direction of Engineer in charge <b>White vitreous china wash basin size 630x450mm with pair of 15mm CP Brass</b>	Each	4387.00
549	17.7.2	Providing and fixing of wash basin with C.I brackets, 15mm Cp brass pillar taps 32mm Cpbrass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: including clamps and fixtures complete as per direction of Engineer in charge <b>White vitreous china wash basin size 630x450mm withsingle 15mm CP Brass</b>	Each	3559.00
550	17.7.3	Providing and fixing of wash basin with C.I brackets, 15mm Cp brass pillar taps 32mm Cpbrass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: including clamps and fixtures complete as per direction of Engineer in charge <b>White vitreous china wash basin size 550x400mm withsingle 15mm CP Brass</b>	Each	3196.00
551	17.7.4	Providing and fixing of wash basin with C.I brackets, 15mm Cp brass pillar taps 32mm Cpbrass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: including clamps and fixtures complete as per direction of Engineer in charge <b>White vitreous china wash basin size 600x480mm withsingle 15mm CP Brass</b>	Each	3431.00
552	17.8	Providing and fixing white vitreous china pedestral for wash basin completely recessed at the back for the reception of pipes and fittings. including clamps and fixtures complete as per direction of Engineer in charge	Each	1412.00
553	17.9	Providing and fixing of kitchen sink with C.I brackets, CP brass chain with rubber plug, 40mm CP brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>White glazed fire clay kitchen sink of size 600x450x250mm</b>	Each	4849.00
554	17.10	Providing and fixing of Stainless steel AISI304 (18/8) kitchen sink as per IS 13983 with C.I brackets, CP brass chain with stainless steel plug, 40mm CP brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>Kitchen sink with drain board 510x1040 mm bowl depth 250mm</b>	Each	9829.00
555	17.10.2	Providing and fixing of Stainless steel AISI304 (18/8) kitchen sink as per IS 13983 with C.I brackets, CP brass chain with stainless steel plug, 40mm CP brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>Kitchen sink without drain board 610x510 mm bowl depth 200mm</b>	Each	7823.00
556	17.10.2.3	Providing and fixing of Stainless steel AISI304 (18/8) kitchen sink as per IS 13983 with C.I brackets, CP brass chain with stainless steel plug, 40mm CP brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>Kitchen sink without drain board 610x460 mm bowl depth 178mm</b>	Each	5222.00
557	17.11	Providing and fixing white vitreous china laboratory sink with C.I brackets , CP brass chain with rubber plug 40mm CP brass waste and 40mm CP brass trap with necessary C.P brass unions complete including painting of fittings and brackets cutting and making good the wall wherever required: including clamps and fixtures complete as per direction of Engineer in charge <b>Size 600x450x200mm</b>	Each	5123.00

558	17.7	Providing and fixing wash basin with CI brackets 15mm CP brass pillar taps ,32 mm CP brass waste of standard pattern , including painting of fittings and brackets cutting and making good the walls wherever require: including clamps and fixtures complete as per direction of Engineer in charge		
	17.7.9	<b>White Vitreous china surgeon type wash basin of size 660x460m with single 15mm CP pillar taps with elbow operated levers ISI marked.</b>	Each	6989.00
559	17.13.1	Providing and fixing white vitreous china water closet squatting pan (Indian type) long pattern W.C pan of size 580mm including clamps and fixtures complete as per direction of Engineer in charge	Each	1712.00
560	17.13.2	Providing and fixing white vitreous china water closet squatting pan (Orissa pattern) long pattern Orissa pattern W.C pan of size 580x 440mm including clamps and fixtures complete as per direction of Engineer in charge	Each	1527.00
561	17.15	Providing and fixing white vitreous china pedestral type (European type/Wash down type) Water closet pan including clamps and fixtures complete as per direction of Engineer in charge	Each	2132.00
562	17.17.2	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet: 250x125x25mm including clamps and fixtures complete as per direction of Engineer in charge	Each	451.00
563	17.18.1	Providing and fixing PVC low level flushing cistern with manually controlled device (handle lever) conforming to IS 7231 with all fittings and fixtures complete. 10ltr Capacity white including clamps and fixtures complete as per direction of Engineer in charge	Each	1192.00
564	17.20	Providing and fixing solid plastic seat with lid for pedestral type WC pan complete: white solid plastic seat with lid including clamps and fixtures complete as per direction of Engineer in charge	Each	567.00
565	17.23	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265 mm sizes respectively. including clamps and fixtures complete as per direction of Engineer in charge	Each	1125.00
566	17.24	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe including clamps and fixtures complete as per direction of Engineer in charge	Each	1727.00
567	17.25.1	Providing and fixing of white vitreous china wash basin including making all connection but excluding the cost of fittings: flat back wash basin of size 630x450mm including clamps and fixtures complete as per direction of Engineer in charge	Each	1949.00
568	17.25.2	Providing and fixing of white vitreous china wash basin including making all connection but excluding the cost of fittings: flat back wash basin of size 550x400mm including clamps and fixtures complete as per direction of Engineer in charge	Each	1597.00
569	17.25.3	Providing and fixing of white vitreous china wash basin including making all connection but excluding the cost of fittings: flat back wash basin of size 600x480mm including clamps and fixtures complete as per direction of Engineer in charge	Each	1832.00
570	17.25.6	Providing and fixing of white vitreous china wash basin including making all connection but excluding the cost of fittings: Surgeon type wash basin of size 660x460mm including clamps and fixtures complete as per direction of Engineer in charge	Each	5390.00
571	17.26	Providing and fixing of kitchen sink including making all connections but excluding the cost of fittings: White glazed fire clay sink of size 600x450x250mm including clamps and fixtures complete as per direction of Engineer in charge	Each	3530.00
572	17.27	Providing and fixing of White vitreous china laboratory sink including making all connections but excluding the cost of fittings: size 600x450x250mm including clamps and fixtures complete as per direction of Engineer in charge	Each	3512.00
573	17.28.1.1	Providing and fixing of PVC waste pipe for Sink or wash basin including PVC waste fittings complete : Semirigid pipe 32mm dia including clamps and fixtures complete as per direction of Engineer in charge	Each	329.00
574	17.28.2.1	Providing and fixing of PVC waste pipe for Sink or wash basin including PVC waste fittings complete : Semirigid pipe 40 mm dia including clamps and fixtures complete as per direction of Engineer in charge	Each	407.00
575	17.29	Providing and fixing of 100mm sand cast iron garting for gully trap including clamps and fixtures complete as per direction of Engineer in charge	Each	339.00

576	17.31	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete including clamps and fixtures complete as per direction of Engineer in charge	Each	1293.00
577	17.33	Providing and fixing of 600x120x5mm glass self with edges round of supported on anodized aluminium angle frame with CP brass brackets and guard rail complete fixed with 40mm long screw, rawl plugs etc complete including clamps and fixtures complete as per direction of Engineer in charge	Each	1058.00
578	17.34.1	Providing and fixing of Toilet paper holder: CP brass including clamps and fixtures complete as per direction of Engineer in charge	Each	1024.00
579	17.70.1	Providing and fixing of PTMT bottle trap for wash basin and sink Bottle trap 31mm single piece moulded with height of 270mm , effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal , weighing not less than 260gms including clamps and fixtures complete as per direction of Engineer in charge	Each	446.00
580	17.70.2	Providing and fixing of PTMT bottle trap for wash basin and sink Bottle trap 38mm single piece moulded with height of 270mm , effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal , weighing not less than 263gms including clamps and fixtures complete as per direction of Engineer in charge	Each	534.00
581	17.72	Providing and fixing of PTMT Towel ring Circular shape 200mm dia with a minimum distanc eof 37mm from wall face with concealed fitting arrangement of approved quality and colours not less than 80 Gms including clamps and fixtures complete as per direction of Engineer in charge	Each	252.00
582		Providing and fixing of CP towel rail complete with brackcket fixed to wooden cleats with CVP bras screw with concealed arrangement of approved make and brand and quality : 600mm x20mm dia CP Brass including clamps and fixtures complete as per direction of Engineer in charge	Each	1024.00
583		Providing and fixing CP bras Soap case of Approved make and quality including clamps and fixtures complete as per direction of Engineer in charge	Each	686.00
584		Providing and fixing of CP brass Towel ring Circular shape 200mm dia with a minimum distanc eof 37mm from wall face with concealed fitting arrangement of approved quality including clamps and fixtures complete as per direction of Engineer in charge	Each	446.00
585	17.71	Providing and fixing of PTMT liquid soap container 109 mm wide ,125mm high and 112mm distance form the wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour weighing not less than 105 Gm including clamps and fixtures complete as per direction of Engineer in charge	Each	305.00
586		Providing and fixing of PTMT towel rail complete with bracket fixed to wooden cleats with CP bras screw with concealed arrangement of approved make and brand and quality : 600mm x20mm dia PTMT including clamps and fixtures complete as per direction of Engineer in charge	Each	492.00
587		Providing and fixing white vitreous china approved make white colour European water closet wall mounted pattern type 'p' trap with 4/2 Lts.Capacity Dual Flush Concealed Tank. The quoted price shall also include plastic solid seat and cover with rubber buffers and flap, heavy duty plastic hinges,chair Brackets etc., complete with seat lid and inbuilt low level cistern of , 10ltr with twin type water flow facility white with manually controlled device (handle lever) conforming to IS 7231 of approved brand and make and design (jaguar/ RAK/ CERA) with all fitiings and fixtures complete including cutting and making good the walls and floors where ever required : including clamps and fixtures complete as per direction of Engineer in charge	Each	9337.00
588	17.27.2	Providing and fixing of White vitreous china laboratory sink including making all connections but excluding the cost of fittings: size 450x300x150mm including clamps and fixtures complete as per direction of Engineer in charge	Each	2823.00
589	17.25.3	Providing and fixing of white vitreous counter/ table top china wash basin including making all connection but excluding the cost of fittings:counter top wash basin of size 560x420x210mm of any shpae oval /round/ square/rectangle of approved brand and quality including clamps and fixtures complete as per direction of Engineer in charge	Each	2105.00
590	17.23	Providing and fixing White vitreous china flat back half stall urinal of size 580x380x350 / 590x302x365 mm respectively including clamps and fixtures complete as per direction of Engineer in charge	Each	3803.00

591	17.27.2	Providing and fixing of White vitreous china laboratory sink including making all connections but excluding the cost of fittings: size 530x430x180mm including clamps and fixtures complete as per direction of Engineer in charge	Each	4195.00
592	17.70.2	Providing and fixing of CP brass bottle trap for wash basin and sink Bottle trap 38mm single piece moulded with height of 270mm , effective length of tail pipe 260mm from the centre of the waste coupling 77 m breadth with 25mm minimum water seal , including clamps and fixtures complete as per direction of Engineer in charge	Each	1033.00

## SANITARY FITTINGS

593	17.35	Providing and fixing Soil, waste and vent pipes (SAND CAST IRON (S&S) PIPE as per IS 1729		
593a	17.35.1.1	100mm dia	RM	558.00
593b	17.35.2.1	75mm dia	RM	457.00
593c		150mm dia	RM	889.00
594		Providing and fixing Soil, waste and vent pipes (Centrifugally cast iron PIPE as per IS 3989		
594a	17.35.1.2	100mm dia	RM	696.00
594b	17.35.2.2	75mm dia	RM	616.00
594c		150mm dia	RM	915.00
595	17.36	Providing and filing the joints with spun yarn cement slurry and cement mortar 1:2 (1 cement : 2 sand) in SCI/CI pipes		
595a	17.36.2	100mm dia	Each	55.00
595b	17.36.1	75mm dia	Each	47.00
595c		150mm dia	Each	55.00
596	17.38	Providing and fixing bend of required degree with access door , insertion rubber washer 3mm thick , Bolts and nuts complete Sand cast iron (S& S ) pipe as per IS 1729		
596a	17.38.1.1	100mm dia	Each	800.00
596b	17.38.2.1	75mm dia	Each	557.00
596c		150mm dia	Each	1449.00
597		Centrifugal Cast Iron as per IS -3989		
597a	17.38.1.2	100mm dia	Each	953.00
597b	17.38.2.2	75mm dia	Each	557.00
597c		150mm dia	Each	1449.00
598	17.39	Providing and fixing plain bend of required degree Centrifugal Cast Iron as per IS -3989		
598a	17.39.1.2	100mm dia	Each	516.00
598b	17.39.2.2	75mm dia	Each	324.00
598c		150mm dia	Each	845.00
599		Sand Cast Iron (S&S) as per IS -1729		
599a	17.39.1.1	100mm dia	Each	552.00
599b	17.39.2.1	75mm dia	Each	418.00
599c		150mm dia	Each	689.00
600	17.40	Providing and fixing heel rest sanitary bend Sand Cast Iron (S&S) as per IS -1729		
600a	17.40.1.1	100mm dia	Each	552.00
600b	17.40.2.1	75mm dia	Each	418.00
601		Centrifugal cast iron pipe as per IS 3989		
601a	17.40.1.2	100mm dia	Each	516.00
601b	17.40.2.2	75mm dia	Each	312.00
602	17.41	Providing and fixing double equal junction of required degree with access door insertion rubber washer 3mm thick bolts and nuts complete		
	17.41.1	Sand Cast Iron (S&S) as per IS -1729		
602a	17.41.1.1	100x100x100x100mm dia	Each	728.00
602b	17.41.2.1	75x75x75x75mm dia	Each	459.00
603		Centrifugal cast iron pipe as per IS 3989		
603a	17.41.1.2	100x100x100x100mm dia	Each	903.00
603b	17.41.2.2	75x75x75x75mm dia	Each	488.00
604	17.42	Providing and fixing double equal Plain junction of required degree Sand Cast Iron (S&S) as per IS -1729		

604a	17.42.1.1	100x100x100x100mm dia	Each	786.00
604b	17.42.2.1	75x75x75x75mm dia	Each	429.00
605		Centrifugal cast iron pipe as per IS 3989		
605a	17.42.1.2	100x100x100x100mm dia	Each	903.00
605b	17.42.2.2	75x75x75x75mm dia	Each	488.00
606	17.43	Providing and fixing single equal junction of required degree with access door insertion rubber washer 3mm thick bolts and nuts complete Sand Cast Iron (S&S) as per IS -1729		
606a	17.43.1.1	100x100x100x100mm dia	Each	493.00
606b	17.43.2.1	75x75x75x75mm dia	Each	312.00
607		Centrifugal cast iron pipe as per IS 3989		
607a	17.43.1.2	100x100x100x100mm dia	Each	786.00
607b	17.43.2.2	75x75x75x75mm dia	Each	388.00
608	17.44	Providing and fixing Single equal Plain junction of required degree Sand Cast Iron (S&S) as per IS -1729		
608a	17.44.2.1	100x100x100x100mm dia	Each	493.00
608b	17.44.2.1	75x75x75x75mm dia	Each	429.00
609		Centrifugal cast iron pipe as per IS 3989		
609a	17.44.1.2	100x100x100x100mm dia	Each	493.00
609b	17.44.2.2	75x75x75x75mm dia	Each	343.00
610	17.46	Providing and fixing Double Un equal Plain junction of required degree Sand Cast Iron (S&S) as per IS -1729		
610a	17.46.1.1	100x100x75x75mm dia	Each	552.00
		Centrifugal Cast iron asp per IS 3989		
610b	17.46.1.2	100x100x75x75mm dia	Each	773.00
611	17.45	Providing and fixing Double Unequal junction of required degree with access door insertion rubber washer 3mm thick bolts and nuts complete Sand Cast Iron (S&S) as per IS -1729		
611a	17.45.1.1	100x100x75x75mm dia	Each	669.00
		Centrifugal Cast iron asp per IS 3989		
611b	17.45.1.2	100x100x75x75mm dia	Each	845.00
612	17.48	Providing and fixing Single Un equal Plain junction of required degree Sand Cast Iron (S&S) as per IS -1729		
612a	17.48.1.1	100x100x75mm dia	Each	464.00
		Centrifugal Cast iron asp per IS 3989		
612b	17.48.1.2	100x100x75mm dia	Each	564.00
613	17.47	Providing and fixing Single Unequal junction of required degree with access door insertion rubber washer 3mm thick bolts and nuts complete Sand Cast Iron (S&S) as per IS -1729		
613a	17.47.1.1	100x100x75mm dia	Each	552.00
		Centrifugal Cast iron asp per IS 3989		
613b	17.47.1.2	100x100x75mm dia	Each	638.00
614	17.53	Providing and fixing 76mm offsets Sand Cast Iron (S&S) as per IS -1729		
614a	17.53.1.2	100mm dia	Each	277.00
614b	17.53.1.1	75mm dia	Each	167.00
615	17.53.2	Providing and fixing 114mm offsets		
615a	17.53.2.2	100mm dia	Each	363.00
615b	17.53.2.1	75mm dia	Each	282.00
616	17.53.3	Providing and fixing 152mm offsets		
616a	17.53.3.2	100mm dia	Each	455.00
616b	17.53.3.1	75mm dia	Each	354.00
617	147.54.1	Providing and fixing 75mm offsets Centrifugal Cast iron asp per IS 3989		
617a		100mm dia	Each	332.00
617b	17.54.1.1	75mm dia	Each	229.00
618		Providing and fixing 100mm offsets		
618a		100mm dia	Each	360.00
618b		75mm dia	Each	264.00

619	17.54.2	Providing and fixing 150mm offsets		
619a	17.54.2.2	<b>100mm dia</b>	Each	390.00
619b	17.54.2.1	<b>75mm dia</b>	Each	293.00
620	17.56	Providing and fixing Terminal Guard Centrifugal Cast iron asp per IS 3989		
620a	17.56.1.2	<b>100mm dia</b>	Each	204.00
620b	17.56.2.2	<b>75mm dia</b>	Each	185.00
621		Sand Cast Iron (S&S) as per IS -1729		
621a	17.56.1.1	<b>100mm dia</b>	Each	202.00
621b	17.56.2.1	<b>75mm dia</b>	Each	147.00
622	17.57	Providing and fixing Collar Centrifugal Cast iron asp per IS 3989		
622a	17.57.1.2	<b>100mm dia</b>	Each	213.00
622b	17.57.2.2	<b>75mm dia</b>	Each	154.00
623		Sand Cast Iron (S&S) as per IS -1729		
623a	17.57.1.1	<b>100mm dia</b>	Each	309.00
623b	17.57.2.1	<b>75mm dia</b>	Each	238.00
624	17.60	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors : Sand Cast Iron (S&S) as per IS -1729		
624a	17.60.1.2	<b>100mm inlet 100mm outlet</b>	Each	1078.00
624b	17.60.2.2	<b>100mm inlet 75mm outlet</b>	Each	902.00
625		Centrifugal Cast iron asp per IS 3989		
625a	17.60.1.1	<b>100mm inlet 100mm outlet</b>	Each	1254.00
625b	17.60.2.1	<b>100mm inlet 75mm outlet</b>	Each	1136.00
626	17.58	Providing lead caulked joints to sand cast iron/ Centrifugally cast (Spun) iron pipes and fittings of diameter		
626a	17.58.1	<b>100mm dia</b>	Each	457.00
626b	17.58.2	<b>75mm dia</b>	Each	401.00
627	17.6	Cutting chases in brick masonry walls for following diameter sand cast iron /centrifugally cast iron pipes and making good the same with cement concrete 1::6 (1 cement:3 sand: 6 graded stone aggregate) including necessary plaster and pointing in cement mortar 1:4 (1 cement: 4 Sand)		
627a	17.61.1	<b>100mm dia</b>	Each	269.00
627b	17.61.2	<b>75mm dia</b>	Each	192.00
628	17.65	Painting sand cast iron/centrifugally cast iron (spun ) iron soil , waste vent pipes and fittings with paint of any colour such as chocolate grey buff etc over a coat of primer of approved quality for new work:		
628a	17.65.1	<b>100mm dia</b>	RM	42.00
628b	17.65.2	<b>75mm dia</b>	RM	32.00
629		Supplying and fixing and fittings of uPVC pipes of approved brand (Astral/Finolex/Supreme) 2.5Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
629a		<b>110mm dia Pipes</b>	RM	343.00
629b		<b>78mm dia pipes</b>	RM	267.00
629c		<b>52mm dia pipes</b>	RM	230.00
629d		<b>160mm dia Pipes</b>	RM	524.00
630		Supplying and fixing and fittings of uPVC door bend with access door of approved brand (Astral/Finolex/Supreme) 2.5Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
630a		<b>110mm dia Pipes</b>	Each	243.00
630b		<b>78mm dia pipes</b>	Each	174.00
630c		<b>52mm dia pipes</b>	Each	167.00
630d		<b>160mm dia Pipes</b>	Each	417.00
631		Supplying and fixing and fittings of uPVC plain bend of approved brand (Astral/Finolex/Supreme) 2.5Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
631a		<b>110mm dia Pipes</b>	Each	209.00

631b	<b>78mm dia pipes</b>	Each	158.00
631c	<b>52mm dia pipes</b>	Each	121.00
631d	<b>160mm dia Pipes</b>	Each	379.00
632	Supplying and fixing and fittings of uPVC Por S trap of approved brand(Astral/Finolex/Supreme) 4Kg/Sq.Cmcomplete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
632a	<b>110mm inlet and 110mm outlet dia trap</b>	Each	447.00
632b	<b>110mm inlet and 78mm outlet dia trap</b>	Each	340.00
632c	<b>110mm inlet and 78mm outlet dia nihani trap</b>	Each	255.00
632d	<b>110/70/56(3x) mm Floor trap</b>	Each	349.00
633	Supplying and fixing and fittings of uPVC required degree junction or plain junction with access door of approved brand (Astral/Finolex/Supreme) 4Kg/Sq.Cmcomplete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
633a	<b>110mm dia Pipes</b>	Each	258.00
633b	<b>78mm dia pipes</b>	Each	190.00
633c	<b>52mm dia pipes</b>	Each	171.00
633d	<b>160mm dia Pipes</b>	Each	469.00
634	Supplying and fixing and fittings of uPVC clamp with cost of screw and fixtures of approved brand(Astral/Finolex/Supreme) 4Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
634a	<b>110mm dia Pipes</b>	Each	64.00
634b	<b>78mm dia pipes</b>	Each	51.00
634c	<b>52mm dia pipes</b>	Each	38.00
634d	<b>160mm dia Pipes</b>	Each	107.00
635	Supplying and fixing and fittings of uPVC vent cowl of approved brand (Astral/Finolex/Supreme) 2.5Kg/Sq.Cmcomplete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.	Each	
635a	<b>110mm dia Pipes</b>	Each	73.00
635b	<b>78mm dia pipes</b>	Each	65.00
635c	<b>52mm dia pipes</b>	Each	58.00
635d	<b>160mm dia Pipes</b>	Each	146.00
636	Supplying and fixing and fittings of uPVC offset (of 74mm offsets) of approved brand(Astral/Finolex/Supreme) 2.5Kg/Sq.Cmcomplete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
636a	<b>110mm dia Pipes</b>	Each	204.00
636b	<b>78mm dia pipes</b>	Each	136.00
636c	<b>52mm dia pipes</b>	Each	0.00
636d	<b>160mm dia Pipes</b>	Each	556.00
637	Supplying and fixing and fittings of SOIL WASTE/ SEWARAGE / uPVC pipes of approved brand (Astral/Finolex/Supreme) 4Kg/Sq.Cm complete with fittings including cutting , laying and making good the walls / under soil etc. as per direction of Engineerin Charge.		
637a	<b>160mm</b>	RM	729.00
637b	<b>210mm</b>	RM	618.00
637c	<b>110mm</b>	RM	416.00
638	Supplying and fixing and fittings of reinforced PVCpipes push fit socketed with EPDM lip seal system for soil and waste system of approved brand (Astralwavin) 4Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
638a	<b>70mm dia pipes</b>	RM	277.00
638b	<b>100mm dia pipes</b>	RM	438.00
638c	<b>150mm dia Pipes</b>	RM	516.00
638d	<b>200mm dia Pipes</b>	RM	688.00
639	Supplying and fixing and fittings of reinforced PVC plain bends push fit socketed with EPDM lip seal system for soil and waste system of approved brand (Astralwavin) 4Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
639a	<b>70mm dia pipes</b>	Each	190.00
639b	<b>100mm dia pipes</b>	Each	334.00

639c	<b>150mm dia Pipes</b>	Each	393.00
639d	<b>200mm dia Pipes</b>	Each	448.00
640	Supplying and fixing and fittings of reinforced PVC double socketed sleeve / repair coupler push fit socketed with EPDM lip seal system for soil and waste system of approved brand (Astralwavin) 4Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
640a	<b>70mm dia pipes</b>	Each	190.00
640b	<b>100mm dia pipes</b>	Each	334.00
640c	<b>150mm dia Pipes</b>	Each	393.00
640d	<b>200mm dia Pipes</b>	Each	448.00
641	Supplying and fixing and fittings of reinforced PVC door bend/ door tee push fit socketed with EPDM lip seal system for soil and waste system of approved brand (Astralwavin) 4Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
641a	<b>100mm dia pipes door bend</b>	Each	246.00
641b	<b>150mm dia pipes door bend</b>	Each	392.00
641c	<b>100mm dia pipes door Tee</b>	Each	337.00
641d	<b>150mm dia pipes door Tee</b>	Each	431.00
642	Supplying and fixing and fittings of MS bracket with rubber insert system for reinforced PVC pipe of soil and waste system of approved brand (Astralwavin) 4Kg/Sq.Cm complete with fittings including cutting and making good the walls etc. as per direction of Engineerin Charge.		
642a	<b>70mm dia pipes</b>	Each	120.00
642b	<b>100mm dia pipes</b>	Each	143.00
642c	<b>150mm dia Pipes</b>	Each	173.00

## 18.0 WATER SUPPLY

643	<b>18.7</b>	Providing and fixing of chlorinated polyvinyl chloride (CPVC)pipes , having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing . This includes jointing of pipes fittings with one CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge(Internal work exposed on Wall) (ASTRAL/ FINOLEX/equivalent)		
643a	<b>18.7.1</b>	<b>15mm nominal bore</b>	RM	164.00
643b	<b>18.7.2</b>	<b>20mm nominal bore</b>	RM	201.00
643c	<b>18.7.3</b>	<b>25mm nominal bore</b>	RM	256.00
643d	<b>18.7.4</b>	<b>32mm dia nominal bore</b>	RM	373.00
643e	<b>18.7.5</b>	<b>40mm nominal bore</b>	RM	506.00
643f	<b>18.7.6</b>	<b>50mm nominal bore</b>	RM	775.00
644	<b>18.8</b>	Providing and fixing of chlorinated polyvinyl chloride (CPVC)pipes , having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing . This includes jointing of pipes fittings with one CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge(Concealed work includig cutting chases and making good the walls etc.) (ASTRAL/ FINOLEX/equivalent)		
644a	<b>18.8.1</b>	<b>15mm nominal bore</b>	RM	281.00
644b	<b>18.8.2</b>	<b>20mm nominal bore</b>	RM	324.00
644c	<b>18.8.3</b>	<b>25mm nominal bore</b>	RM	392.00
644d	<b>18.8.4</b>	<b>32mm dia nominal bore</b>	RM	537.00
645	<b>18.9</b>	Providing and fixing of chlorinated polyvinyl chloride (CPVC)pipes , having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing . This includes jointing of pipes fittings with one CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge(External Work) (ASTRAL/ FINOLEX/equivalent)		
645a	<b>18.9.1</b>	<b>15mm nominal bore</b>	RM	156.00
645b	<b>18.9.2</b>	<b>20mm nominal bore</b>	RM	188.00
645c	<b>18.9.3</b>	<b>25mm nominal bore</b>	RM	242.00
645d	<b>18.9.4</b>	<b>32mm dia nominal bore</b>	RM	350.00
645e	<b>18.9.5</b>	<b>40mm nominal bore</b>	RM	468.00



645f	18.9.6	50mm nominal bore	RM	737.00
645g	18.9.7	62.5mm nominal bore	RM	2060.00
645h	18.9.8	75mm nominal Bore	RM	2748.00
645i	18.9.9	100mm Nominal bore	RM	4076.00
646	18.10	Providing and fixing of G.I pipes complete with G.I fittings and clamps including cutting and making good the walls etc. Internal work (Exposed on wall)		
646a	18.10.1	15mm nominal bore	RM	239.00
646b	18.10.2	20mm nominal bore	RM	299.00
646c	18.10.3	25mm nominal bore	RM	380.00
646d	18.10.4	32mm dia nominal bore	RM	420.00
646e	18.10.5	40mm nominal bore	RM	480.00
646f	18.10.6	50mm nominal bore	RM	638.00
647	18.11	Concealed pipe including painting with anti corosive bitumastic paint, cutting chases and making good the wall		
647a	18.11.1	15mm nominal bore	RM	323.00
647b	18.11.2	20mm nominal bore	RM	380.00
647c		25mm nominal bore	RM	456.00
648	18.12	Providing and fixing of G.I pipes complete with G.I fittings and including trenching and refilling etc (External Work)		
648a	18.12.1	15mm nominal bore	RM	238.00
648b	18.12.2	20mm nominal bore	RM	296.00
648c	18.12.3	25mm nominal bore	RM	379.00
648d	18.12.4	32mm dia nominal bore	RM	419.00
648e	18.12.5	40mm nominal bore	RM	466.00
648f	18.12.6	50mm nominal bore	RM	614.00
648g	18.12.7	65mm nominal bore	RM	843.00
648h	18.12.8	80mm nominal Bore	RM	1028.00
648i		100mm Nominal bore	RM	1444.00
649	18.46	Providing and fixing of G.I Unions in G.I pipes including cutting and threading the pipe and amking long screw etc complete (New work)		
649a	18.46.1	15mm nominal bore	Each	119.00
649b	18.46.2	20mm nominal bore	Each	137.00
649c	18.46.3	25mm nominal bore	Each	152.00
649d	18.46.4	32mm dia nominal bore	Each	201.00
649e	18.46.5	40mm nominal bore	Each	236.00
649f	18.46.6	50mm nominal bore	Each	332.00
649g	18.46.7	65mm nominal bore	Each	537.00
649h	18.46.8	80mm nominal Bore	Each	713.00
649i		100mm Nominal bore	Each	942.00
650	18.13	Making connection of G.I distribution branch with G.I main of follwing sizes by providing and fixing tees including cutting and threading the pipes etc. complete		
650a	18.13.1	25to 40mm nominal bore	Each	398.00
650b	18.13.2	50to 100mm nominal bore	Each	731.00
651	18.15	Providing and fixing of Brass fittings for Water supplyu connection as per approved quality and direction of Engineer in Charge.		
651a	18.15.1	15mm dia Brass Bib cock	Each	489.00
651b	18.15.2	20mm Dia Brass Bib cock	Each	544.00
651c	18.16.1	15mm dia Brass Stop Cock	Each	513.00
651d	18.16.2	20mm Dia Brass Stop Cock	Each	576.00
652	18.17	Providing and fixing of Brass fittings for Water supplyu connection as per approved quality and direction of Engineer in Charge. (zoloto/ shakti)		
652a	18.17.1	25mm dia gunmetal gate valve	Each	937.00
652b	18.17.2	32mm gunmetal gate valve	Each	1332.00
652c	18.17.3	40mm gunmetal gate valve	Each	1963.00
652d	18.17.4	50mm dia gunmetal gate valve	Each	2548.00
652e	18.17.6	80mm dia gunmetal gate valve	Each	6485.00
652f		100mm dia gate valve	Each	13328.00
653	18.18	Providing and fixing of Brass Ball Cock for high or low pressure with plastic float as per approved quality and direction of Engineer in Charge.		

653a	18.18.1	Brass ball cock 15mm dia	Each	419.00
653b	18.18.2	Brass ball cock 20mm dia	Each	534.00
653c	18.18.3	Brass ball cock 25mm dia	Each	713.00
654	18.19	Providing and fixing of Gunmetal Non return valve as per approved quality (Screwed End)and direction of Engineer in Charge.		
654a	18.19.6	Gunmetal NRV H/V 80mm dia	Each	8834.00
654b		Gunmetal NRV H/V 100mm dia	Each	18219.00
654c		Gunmetal NRV H/V 150mm dia	Each	21738.00
655		Providing and fixing of gunmetal Ball valve and fittings for Water supplyu connection as per approved quality and direction of Engineer in Charge. (ZOLOTO/SHAKTI/Equivalent)		
655a		15mm dia ball valve	Each	482.00
655b		25mm dia ball valve	Each	1055.00
655c		32mm ball valve	Each	1409.00
655d		40mm ball valve	Each	1775.00
655e		50mm ball valve	Each	2607.00
656	18.21	Providing and fixing of unplasticised PVC connection pipe with brass unions as per approved quality and direction of Engineer in Charge.		
656a	18.21.1	15mm 30CM length	Each	109.00
656b	18.21.2	15mm dia 45Cm length	Each	117.00
656c		15mm dia 60Cm length	Each	135.00
657	18.49	Providing and fixing of CP Brass Fittings conforming to IS 8931as per approved quality and direction of Engineer in Charge. (JAGUAR/PLUMBER/JOHNSON Equivalent)		
657a	18.49.1	15mm dia Bib cock	Each	739.00
657b		15mm dia Stop cock	Each	794.00
657c	18.52.1	15mm dia Pillar cock	Each	838.00
657d	18.51.1	15mm dia long body bib cock	Each	884.00
657e	18.50.1	15mm dia long nose bib cock	Each	893.00
657f		15mm dia short body bibcock	Each	885.00
657g		15mm dia Swing cock	Each	1495.00
657h		15mm dia swivel cock	Each	1729.00
657i		15mm dia wall mixer with L bend	Each	3841.00
657j		15mm dia angle cock	Each	870.00
657k		15mm dia conceal stop cock	Each	817.00
657l	18.22.1	15mm to 20mm dia CP brass shower rose with Arm (100mm dia)	Each	1009.00
657m	18.22.2	15mm to 20mm dia CP brass shower rose with Arm (150mm dia)	Each	1129.00
657n		CP connector pipe for Geysers 45Cm length with CP brass Unions	Each	393.00
657o		CP connector pipe for Geysers 60Cm length with CP brass Unions	Each	434.00
657p		15mm CPpillar taps with elbow operated levers	Each	2492.00
657q		15mm dia health faucet with flexible pipe 1.0mtr	Each	1255.00
657r		15mm dia lift cock/push cock	Each	401.00
658	18.54	Providing and fixing PTMT Fittings as per approved quality and colour as per the direction of Engineer in Charge. (prayag/shakti/Polytuf/ equivalent)		
658a	18.54.1	15mm dia Bib cock	Each	214.00
658b	18.55.1	15mm dia Stop cock	Each	190.00
658c	18.56.1	15mm dia pillar cock	Each	231.00
658d	18.57.1	15mm dia push cock	Each	190.00
658e	18.58.1.1	PTMT grating (100 to 150mm dia)	Each	78.00
658f		CP brass Grating	Each	113.00
659	18.62	Providing and fixing PTMT ball cock of approved quality, colour and make complete with epoxy coated aluminum rod with L.P./H.P.H.D plastic ball (PRAYAG/Equivalent)		
659a	18.62.1	PTMT Ball cock 15mm bore, 105mm long weighing not less than 138 Gms	Each	370.00
659b	18.62.3	PTMT Ball cock 25mm bore, 152mm long weighing not less than 440 Gms	Each	663.00
659c	18.62.5	PTMT Ball cock 50mm bore, 242mm long weighing not less than 1240Gms	Each	1581.00
660	18.38	Painting G.I pipes and fittings with synthetic enamel white paint over a ready mixed priming coat, both of approved quality		
660a	18.38.1	15mm nominal bore	Rm	10.00
660b	18.38.2	20mm nominal bore	Rm	12.00
660c	18.38.3	25mm nominal bore	Rm	16.00

660d	18.38.4	32mm dia nominal bore	Rm	19.00
660e	18.38.5	40mm nominal bore	Rm	22.00
660f	18.38.6	50mm nominal bore	Rm	26.00
661	18.40	Painting G.I pipes and fittings with two coats of anti corrosive bitumastic paint of approved quality		
661a	18.40.1	15mm nominal bore	Rm	6.00
661b	18.40.2	20mm nominal bore	Rm	7.00
661c	18.40.3	25mm nominal bore	Rm	8.00
661d	18.40.4	32mm dia nominal bore	Rm	10.00
661e	18.40.5	40mm nominal bore	Rm	12.00
661f	18.40.6	50mm nominal bore	Rm	14.00
662	18.78	making chases upto 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I.pipesetc	Rm	66.00
663	18.48	Providing and placing on terrace (at all floor levels) polythelene water storage tank ISI 12701 marked with cover and suitable locking arrangement and making necessary holes for inlets outlet and overfloew pipe excluding cost of fittings and the base support for the tank		
663a		Polythelene water storage tank (Syntex renotuf)	Ltr	11.00
663b		Triple layer water storage tank(syntex/ equivalent)	Ltr	16.00
664	18.20	Providing and fixing brass ferrule with C.I mouth cover including boring and tapping the main:		
664a	18.20.1	Ferrulee 15mm dia	Each	461.00
664b	18.20.2	Ferrule 20mm dia	Each	552.00
664c	18.20.3	Ferrule 25mm dia	Each	607.00
665		Providing and laying G.I standards specials such as 90° bend (Heavy class)		
665a		80mm	Each	137.00
665b		100mm	Each	176.00
665c		125mm	Each	215.00
665d		150mm	Each	250.00
666		Providing and laying G.I standards specials such as Tee (Heavy class)		
666a		80x80x80mm	Each	319.00
666b		100x100x100mm	Each	358.00
666c		125x125x80mm/125x125x125mm	Each	391.00
666d		150x150x150mm /150x150x100mm/150x150x80mm	Each	420.00
667		Providing and laying G.I standards specials such as Concentric reducers (Heavy class)		
667a		80x25mm	Each	225.00
667b		100x25mm	Each	293.00
667c		80x50mm	Each	279.00
667d		100x50mm	Each	320.00
668		Providing and fixing of G.I Jamnut in G.I pipes including cutting and threading the pipe and amking long screw etc		
668a		25mm	Each	104.00
668b		32mm	Each	126.00
668c		50 mm nominal bore	Each	165.00
669		Providing and fixing of G.I pipes complete with G.I fittings and clamps including cutting and making good the walls etc. Internal work (Exposed on wall)		
669a		125mm dia	Each	1669.00
669b		150mm dia	Each	1947.00
670		providing and fixing MS ERW 150 mm dia pipe of heavy type with 21.3kg /mtr having pressure of 0.5mpa with wall thickness of 5.40mm for water supply by welding joints by arc or gas welding making watertight the joints including all fittings such as bend tee etc complete as per direction of Engineer in Charge. all materials and labour supplied by agency (measurement done per mtr only)	RM'	1669.00
671		providing and fixing MS ERW 100 mm dia pipe of heavy type with 18.5kg /mtr having pressure of 0.5mpa with wall thickness of 5.40mm for water supply by welding joints by arc or gas welding making watertight the joints including all fittings such as bend tee etc complete as per direction of Engineer in Charge. all materials and labour supplied by agency (measurement done per mtr only)	RM'	1932.00

672	Providing and fixing of chlorinated polyvinyl chloride (CPVC) pipes fittings 80 SCHs of ASTRAL / FINOLEX , having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing . This includes jointing of pipes fittings with one CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge(External Wall)		
672a	<b>75mm nominal Bore TEE</b>	Each	1885.00
672b	<b>TEE / 100mm nominal Bore</b>	Each	2122.00
672c	<b>ELBOW75mm nominal Bore</b>	Each	1827.00
672d	<b>Elbow 100mm nominal Bore</b>	Each	2063.00
673	Providing and fixing of CP Brass Fittings (designer series) of approved make (JAGUAR/TOTO/KOHLER) designer fittings (as per desire model and quality) with CP wall cover including CP extension nipple (wherever required) etc conforming to IS 8931 complete as per approved quality and direction of Engineer in Charge.		
673a	15mm Pillar cock (designer)	Each	1436.00
673b	CP brass Bib cock (Designer)	Each	1348.00
673c	CP brass toilet paper holder	Each	556.00
673d	CP brass Urinal cock with spreader	Each	1143.00
673e	CP brass towel ring of dia 300mm	Each	791.00
673f	Cp brass soap dish	Each	439.00
673g	Cp brass twin style shower 15-20mm dia arm and 100-150mm dia Shower rose with hand shower of telephonic arm of 1.5mtr with dual application	Each	3430.00
673h	Cp brass towel tray with twin style robe hook (600x300) for provision of	Each	2668.00
674	Providing and fixing PTMT Fittings as per approved quality and colour as per the direction of Engineer in Charge.		
674a	<b>PTMT robe hook</b>	Each	108.00
674b	<b>PTMTY soap dish</b>	Each	84.00
674c	<b>15mm to 20mm PTMT shower rose</b>	Each	218.00

## CI/DI PIPE & FITTINGS

675	<b>18.23</b>	Laying in position centrifugally cast (Spun) iron S&S or flanged pipes (Excluding cost of pipe)	Quintal	95.00
676	<b>18.24</b>	Laying in position S&S or flanged C.I specials such as tees, bends collars, tapers and caps etc. (Excluding cost of specials)	Quintal	178.00
677	<b>18.25</b>	Providing and laying S&S C.I standards specials such as tees bends, collars tapers caps etc. (Heavy class)	Quintal	3288.00
678		Providing and laying S&S C.I standards specials such as 90° bend (Heavy class)		
678a		<b>80mm dia</b>	Each	2554.00
678b		<b>100mm dia</b>	Each	2956.00
678c		<b>125mm dia</b>	Each	3216.00
678d		<b>150mm dia</b>	Each	3678.00
678e		<b>200mm dia</b>	Each	3952.00
679		Providing and laying S&S C.I standards specials such as Tee (Heavy class)		
679a		<b>80x80x80mm</b>	Each	2627.00
679b		<b>100x100x100mm</b>	Each	3015.00
679c		<b>125x125x80mm/ 125x125x125mm</b>	Each	3295.00
679d		<b>150x150x150mm 150x150x100mm/ 150x150x80mm</b>	Each	3737.00
679e		<b>200x200x80mm/ 200x200x100mm 200x200x200mm tee</b>	Each	3973.00
680		Providing and laying S&S C.I standards specials such as Collars (Heavy class)		
680a		<b>80mm dia</b>	Each	1159.00
680b		<b>100mm dia</b>	Each	1399.00
680c		<b>125mm dia</b>	Each	1850.00
680d		<b>150mm dia</b>	Each	2333.00
680e		<b>200mm dia</b>	Each	3297.00
681		Providing and laying S&S C.I standards specials such as Tail Piece (Heavy class)		

681a		<b>80mm dia</b>	Each	1037.00
681b		<b>100mm dia</b>	Each	1244.00
681c		<b>125mm dia</b>	Each	1469.00
681d		<b>150mm dia</b>	Each	2017.00
681e		<b>200mm dia</b>	Each	2502.00
682	<b>18.27</b>	Providing and laying S&S centrifugally cast (Spun) iron pipes (ClassLA) Conformig to IS 1536		
682a	<b>18.27.1</b>	<b>100mm dia pipe</b>	Rm	2795.00
682b	<b>18.27.2</b>	<b>125mm dia pipe</b>	Rm	3189.00
682c	<b>18.27.3</b>	<b>150mm dia pipe</b>	Rm	3507.00
682d	<b>18.27.4</b>	<b>200mm dia pipe</b>	Rm	3696.00
683		Providing and laying S&S centrifugally cast (Spun) iron pipes (ClassLA) Tyton Joint		
683a		<b>100mm dia pipe</b>	Rm	2795.00
683b		<b>125mm dia pipe</b>	Rm	3189.00
683c		<b>150mm dia pipe</b>	Rm	3507.00
683d		<b>200mm dia pipe</b>	Rm	3696.00
684	<b>18.28/ 18.29</b>	Providing lead caulked joints to spun iron or C. I pipes and specials including testing of joints		
684a	<b>18.28.1</b>	<b>100mm dia pipe</b>	Each	943.00
684b	<b>18.28.2</b>	<b>125mm dia pipe</b>	Each	1156.00
684c	<b>18.28.3</b>	<b>150mm dia pipe</b>	Each	1449.00
684d	<b>18.28.4</b>	<b>200mm dia pipe</b>	Each	2026.00
685	<b>18.70</b>	Providing push on joints to centrifugally cast iron pipes or Ductile Iron pipes including testing and including cost of rubber gasket: TYTON joints		
685a	<b>18.70.1</b>	<b>100mm dia pipe</b>	Each	71.00
685b		<b>125mm dia pipe</b>	Each	71.00
685c	<b>18.70.2</b>	<b>150mm dia pipe</b>	Each	112.00
685d	<b>18.70.3</b>	<b>200mm dia pipe</b>	Each	124.00
685e		<b>300mm dia pipe</b>		224.00
686	<b>18.30</b>	Providinh flanged joints to double flanged C.I /D.I pipes and specials including testing of joints:		
686a	<b>18.30.1</b>	<b>80mm dia</b>	Each	295.00
686b	<b>18.30.2</b>	<b>100mm dia</b>	Each	472.00
686c	<b>18.30.3</b>	<b>125mm dia</b>	Each	472.00
686d	<b>18.30.4</b>	<b>150mm dia</b>	Each	478.00
686e	<b>18.30.5</b>	<b>200mm dia</b>	Each	478.00
686f		<b>250mm dia</b>	Each	478.00
686g		<b>300mm dia</b>	Each	478.00
687	<b>18.31</b>	Providing and fixing C.I sluice valve (with cap) complete with bolts and nuts rubber insertions etc (the tail piece if required will be paid separately)		
687a		<b>80mm dia</b>	Each	6705.00
687b	<b>18.31.1</b>	<b>100mm dia</b>	Each	9409.00
687c	<b>18.31.2</b>	<b>125mm dia</b>	Each	13007.00
687d	<b>18.31.3</b>	<b>150mm dia</b>	Each	16039.00
687e	<b>18.31.4</b>	<b>200mm dia</b>	Each	23569.00
688		Labour for fixing C.I sluice valve (with cap) complete with bolts and nuts rubber insertions etc (the tail piece if required will be paid separately)		
688a		<b>80mm dia</b>	Each	785.00
688b		<b>100mm dia</b>	Each	1200.00
688c		<b>125mm dia</b>	Each	1250.00
688d		<b>150mm dia</b>	Each	1302.00
688e		<b>200mm dia</b>	Each	1436.00
689	<b>18.82</b>	Labour for dismantling old C.I pipes including excavation and refilling trenches after taking out the pipes, , breaking lead caulked joints and melting of lead and making into blocks including stacking of pipes at site lead upto 50mtr		
689a	<b>18.82.1</b>	<b>80mm dia</b>	Rm	88.00
689b	<b>18.82.2</b>	<b>100mm dia</b>	Rm	93.00
689c	<b>18.82.3</b>	<b>125mm dia</b>	Rm	98.00
689d	<b>18.82.4</b>	<b>150mm dia</b>	Rm	104.00

689e	18.82.5	200mm dia	Rm	118.00
690	18.34	Constructing masonry chamber 90x90x100cm , inside with 75class designation brick work in cement mortar 1:4 (1 cement : 4 sand) for sluice valve and RCC top slab of 1:2:4 (1 cement : 2 sand: 4 coarse aggregate ) necessary excavation foundation concrete 1:5:10 (1 cement : 5 sand: 10 stone aggregate) and inside plastering with cement mortar 1:3 (1 cement: 3 sand) 12mm thick finished with a floating coat of neat cement complete as per standard design: With FPS Bricks	Each	9322.00
691	18.32	Constructing masonry chamber 30x30x50cm , inside with 75class designation brick work in cement mortar 1:4 (1 cement : 4 sand) for sluice valve and RCC top slab of 1:2:4 (1 cement : 2 sand: 4 coarse aggregate ) necessary excavation foundation concrete 1:5:10 (1 cement : 5 sand: 10 stone aggregate) and inside plastering with cement mortar 1:3 (1 cement: 3 sand) 12mm thick finished with a floating coat of neat cement complete as per standard design: With FPS Bricks	Each	1114.00
692		Labour for relaying S&S centrifugally cast (Spun) iron pipes (ClassLA) Tyton Joint		
692a		100mm dia	Rm	77.00
692b		125mm dia	Rm	100.00
692c		150mm dia	Rm	125.00
692d		200mm dia	Rm	148.00
693		Providing and fixing C.I sluice valve (with cap) complete with bolts and nuts rubber insertions etc (the tail piece if required will be paid separately)		
693a		250mmdia	Each	22912.00
693b		300 mm dia	Each	25258.00
694		Providing and fixing C.I ball valve (with handle) complete with bolts and nuts rubber insertions etc (the tail piece if required will be paid separately)		
694a		80 mmdia	Each	4764.00
694b		100 mm dia	Each	5152.00
695		Providing and fixing C.I Foot valve (with cap) complete with bolts and nuts rubber insertions etc complete as per direction of Engineer in Charge.		
695a		100mm CI	Each	3529.00
695b		125mm dia CI	Each	4116.00
695c		150mm dia CI	Each	4996.00
696		Providing and fixing of brass foot valve for centrifugal pump with strainer and thred etc complete as per the direction of Engineer in Charge.		
696a		25mm Brass	Each	225.00
696b		50mm Brass	Each	313.00
697		Providing and laying S&S centrifugally Ductile Iron pipe (class K-7) pipes Conformig to IS 8329 complete as per directionof Engineer in charge		
697a		100mm dia	Rm	1074.00
697b		150mm dia	Rm	1567.00
697c		200mm dia	Rm	2002.00
697d		300mm dia	Rm	3902.00
698		Providing and laying S&S C.I standards specials such as Collars (Heavy class) complete as per direction of Engineer in charge		
698a		80mm dia	Each	760.00
698b		100mm dia	Each	898.00
698c		125mm dia	Each	1082.00
698d		150mm dia	Each	1535.00
698e		200mm dia	Each	1958.00

## 19.0 DRAINAGE

699	19.1	Providing and laying and jointing glazed stone ware pipes grade A with stiff mixture of cement mortar 1:1 ( 1 cement: 1 sand) including testing of joints etc complete. As per direction of Engineer incharge		
699a	19.1.2	150mm dia	RM	796.00
699b	19.1.4	230mm dia	RM	1294.00
700	19.2	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse aggregate: 10 graded stone aggregate) around SW pipes including bed concrete as per standard design: complete as per direction of Engineer in charge (100 mm base thickness and alaround 75mm thick PCC must be provided)		

700a	19.2.2	150mm dia	RM	666.00
700b	19.2.4	230mm dia	RM	850.00
701	19.3	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse aggregate: 10 graded stone aggregate) upto haunches SW pipes including bed concrete as per standard design: complete as per direction of Engineer in charge (100 mm base thick PCC must be provided)		
701a	19.3.2	150mm dia	RM	419.00
701b	19.3.4	230mm dia	RM	541.00
702	19.4	Providing and fixing square mouth S.W gully trap grade A complete with C.I grating brick masonry chamber with water tight C.I cover with frame of 300x300 mm size (Inside) the weight of cover to be not less than 4.50kg and frame to be not less than 2.70kg as per standard design: Complete as per direction of Engineer in charge including earthwork and Brick 230mm thick alaround with Bse course of PCC 100mm CC 1:5:10 and Grating etc all complete (Measurement including all quantity)		
	19.4.3	180x150mm size P type with F.P.S bricks class designation 75	Each	2599.00
703	19.5	Dismantling of old SW pipe s including breaking of joints and bed concrete stacking of useful materials near the site within 50 lead and disposal of unservicable materials into municipal dumps: complete as per direction of Engineer incharge.		
	19.5.2	150mm dia	RM	24.00
704	19.6	Providing and laying non pressure NP2 class (light duty) R.C.C pipes with collars jointed with Stiff mixture of cement mortar in proportion of 1:2 (1 cement: 2 sand) including testing of joints etc complete excluding cost of earthwork & as per direction of Engineer in charge.		
704a	19.6.2	150mm dia R.C.C pipe	RM	856.00
704b	19.6.3	250mm dia R.C.C pipe	RM	763.00
704c	19.6.4	300mm dia R.C.C pipe	RM	863.00
704d	19.6.5	450mm dia R.C.C pipe	RM	1033.00
704e	19.6.7	600mm dia R.C.C pipe	RM	1541.00
704f	19.6.11	1000 mm dia R.C.C pipe	RM	2628.00
705	19.7	Supplying and constructing brick masonry man hole chmaber in cement mortar 1:4 (1 cement: 4 sand) with FPS brick class designantion 75 of 230mm thick with inside dimension to be measured. R.C.C. top slab 100mm thick with reinforcement 8# 125C/C both ways with RCC 1:2:4 (1cement : 2 sand: 4 coarse aggregate) including shuttering and other related work complete with manhole with MS frame for 450x450mm with precast slab of 75mm thick Foundation concrete 100 mm thick 1:4:8 (1 cement : 4sand: 8 coarse aggreagte) inside plastering 12mm thick with cement mortar 1:4 (1 cement: 4 sand) finished with floating coat of neat cement punning and making channel in cement concrete 1:2:4 (1 cement: 2 sand: 4 coarse aggregate) as per standard design for chanellization of sewerage finished with floating coat of of neat cement punning complete as per standard design : complete as per direction of Engineer in charge (items rate including all earth work and all materials labour complete )		
	19.7.1	Inside size of 90x80cm and deep 45Cm including R.C.C Precast 50mm thick cover (455x610mm internal dimension of opening ) with FPS bricks class designation 75	Each	7409.00
706	19.7	Supplying and constructing brick masonry man hole chmaber in cement mortar 1:4 (1 cement: 4 sand) with FPS brick class designantion 75 of 230mm thick with inside dimension to be measured. R.C.C. top slab 100mm thick with reinforcement 8# 125C/C both ways with RCC 1:2:4 (1cement : 2 sand: 4 coarse aggregate) including shuttering and other related work complete with manhole with MS frame for 450x450mm with precast slab of 75mm thick Foundation concrete 100 mm thick 1:4:8 (1 cement : 4sand: 8 coarse aggreagte) inside plastering 12mm thick with cement mortar 1:4 (1 cement: 4 sand) finished with floating coat of neat cement punning and making channel in cement concrete 1:2:4 (1 cement: 2 sand: 4 coarse aggregate) as per standard design for chanellization of sewerage finished with floating coat of of neat cement punning complete as per standard design : complete as per direction of Engineer in charge (items rate including all earth work and all materials labour complete )		
	19.7.3.1	Inside size of 120x90 cm and deep 90Cm including R.C.C Precast 50mm thick cover (50mm diameter internal dimension of opening ) with FPS bricks class designation 75	Each	7935.00

707	<b>19.8</b>	Extra for depth of manholes for above said manhole chamber corresponding to sizes measurement done in running metre complete including all materials such as brick work with CM 1:4 and punning with neat cement complete including earth work etc complete. as per direction of Engineer in charge		
	<b>19.8.1.1</b>	<b>Size 90x80Cm with FPS Brick class designation 75</b>	RM	4677.00
708		Extra for depth of manholes for above said manhole chamber corresponding to sizes measurement done in running metre complete including all materials such as brick work with CM 1:4 and punning with neat cement complete including earth work etc complete. as per direction of Engineer in charge		
	<b>19.8.2.1</b>	<b>Size 120x90Cm with FPS Brick class designation 75</b>	RM	5582.00
709	<b>19.15</b>	Providing M.S footrests including fixing in manholes with 20x20x10Cm cement concrete blocks 1:3:6 (1 cement : 3 sand:6 coarse aggregate) as per standard design: complete as per direction of Engineer in charge		
	<b>19.15.2</b>	<b>With 20mm diameter round bar</b>	Each	226.00
710	<b>19.17</b>	Replacement of M.S footrest in manholes including dismantling concrete blocks and fixing with 20x20x10Cm cement concrete block 1:3:6 (1cement : 3 sand: 6 stone aggregate) complete as per direction of Engineer in charge		
		<b>With 20mm diameter round Bar</b>	Each	263.00
711	<b>19.21</b>	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls floors with cement concrete 1:2:4 mix (1 cement: 2 sand: 4 coarse aggregate) cement plasterd on both side with cement mortar 1:4 (1 cement: 4 sand) finished with a floating coat of neat cement and making necessary channels for the drain complete as per direction of Engineer in charge		
		<b>For pipe 100mm to 250mm dia</b>	Each	302.00
712	<b>19.24</b>	Dismantling of manhole including R.C.C. top slab , CI cover with frame including stacking of useful materials near the site and disposal of unservicable materials into municipal dump with in 50mtr lead :		
	<b>19.24.1</b>	<b>Rectangular manhole 90x80cm and 45Cm deep</b>	Each	752.00
713		Dismantling of manhole including R.C.C. top slab , CI cover with frame including stacking of useful materials near the site and disposal of unservicable materials into municipal dump with in 50mtr lead :		
	<b>19.24.2</b>	<b>Rectangular manhole 120x90cm and 90Cm deep</b>	Each	1320.00
714	<b>19.32</b>	Providing and making soakpit 2.5mtr diametr 3.0mtr deep with 45x45cm made of dry FPS brick of 230mm thick and honeycomb brick work with bottom PCC under brick work for stability etc filled with brick bats including Sand SW drain pipe 100mm diameter 1.8mtr long complete as per standard design (With R.C.C. precast slab of 75mm thick and reinforcement 8# 125mm C/c complete including shutering etc) complete including earth work etc complete & as per direction of Engineer in charge. . ( with 75mm thick R.C.C precast cover slab)		
		<b>With F.P.S bricks</b>	Each	26210.00
715	<b>19.33</b>	Constructing soakpit 1.2x1.2x1.2m made of dry FPS brick of 230mm thick and honeycomb brick work with bottom PCC under brick work for stability etc filled with brick bats including SW Drain pipe 100mm diameter and 1.20m long complete as per standard design (With R.C.C. precast slab of 75mm thick and reinforcement 8# 125mm C/c complete including shutering etc) complete including earth work etc complete & as per direction of Engineer in charge.		
	<b>19.33.1</b>	<b>With F.P.S bricks</b>	Each	5660.00



716	<p>Supplying and constructing RCC circular manhole of RCC 1:1.5:3 (1 cement; 1.5 sand: 3: coarse aggregate) wall thickness of 150mm all around for depth more than 1.5mtr with reinforcement 12# 150C/C vertical two way inside &amp; outside and binder with 8# 150C/C with RCC slab of 125mm thick with 8# 125C/C double jalli both ways with with MS frame for 450x450mm with precast slab of 75mm thick and shuttering, vertical as well as horizontal complete as per drawing given with bottom jalli of 12# 150C/C double jalli both ways for raft of thick ness 150mm over PCC 100mm thick of CC 1:4:8 (1 cement: 2 sand : 4 coarse aggregate) complete including earth work and plaster with CM 1:4 inside dimension of 1.2mtr diameter manhole of height 1.5mtr and more upto 2.0 mtr complete finished with floating coat of neat cement punning and making channel in cement concrete 1:2:4 (1 cement: 2 sand: 4 coarse aggregate) as per standard design for channellization of sewerage finished with floating coat of neat cement punning complete as per standard design : complete as per direction of Engineer in charge (items rate including all earth work and all materials labour complete )</p> <p><b>RCC manhole Inside size of 120Cm dia and depth from 1.5mtr to 2.0mtr including R.C.C Precast 75mm thick cover (50mm diameter internal dimension of opening ) with RCC 1:1.5;3</b></p>	Each	29522.00
717	<p>Providing and laying non pressure NP3 class (light duty) R.C.C pipes with spigot and socket joint with rubber ring as per standard design including testing of joints etc complete excluding cost of earthwork &amp; as per direction of Engineer in charge.</p>		
717a	<b>600 mm dia R.C.C pipe</b>	RM	3227.00
717b	<b>900 mm dia R.C.C pipe</b>	RM	6223.00
717c	<b>1200 mm dia R.C.C pipe</b>	RM	8569.00

## 21.0 ALUMINIUM WORK

	<p>Providing and fixing aluminium work for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fit etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (glazing and panelling to be paid separately): (Section :DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr/// Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr/// Casement window: frame: 38x46x1.4@0.622kg/m, mullion: 59x38x1.4@0.729kg/m, 44x46x1.4mm@0.575kg/m, clip 21x15.4x0.85mm@0.137kg/m///)</p> <p><b>Anodized aluminium (anodised transparent or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15)</b></p>		
718	<b>21.1.1</b>		
718a	<b>21.1.1.1 For fixed Portion</b>	Kg	755.00
	<p>Providing and fixing aluminium work for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fit etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (glazing and panelling to be paid separately): (Section :DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr/// Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr/// Casement window: frame: 38x46x1.4@0.622kg/m, mullion: 59x38x1.4@0.729kg/m, 44x46x1.4mm@0.575kg/m, clip 21x15.4x0.85mm@0.137kg/m///)</p>		
719			
719a	<b>21.1.1.2 Powder coated aluminium (aluminium thickness of powder coating 50Micron) For fixed Portion</b>	Kg	611.00

720	21.1.2	<p>Providing and fixing aluminium work for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fit etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (glazing and panelling to be paid separately): (Section :DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr/// Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr/// Casement window: frame: 38x46x1.4@0.622kg/m, mullion: 59x38x1.4@0.729kg/m, 44x46x1.4mm@0.575kg/m, clip 21x15.4x0.85mm@0.137kg/m///)</p> <p><b>Anodized aluminium (anodised transparent or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15)</b></p>		
720a	21.1.2.1	<p><b>For shutters of doors , windows &amp; ventilators including providing and fixing of hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required (fitting shall be paid separately)</b></p> <p>Providing and fixing aluminium work for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fit etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (glazing and panelling to be paid separately): (Section :DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr/// Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr/// Casement window: frame: 38x46x1.4@0.622kg/m, mullion: 59x38x1.4@0.729kg/m, 44x46x1.4mm@0.575kg/m, clip 21x15.4x0.85mm@0.137kg/m///)</p> <p><b>Powder coated aluminium (minimum thickness of powder coating 50Micron)</b></p>	Kg	818.00
721	21.1.2.2	<p><b>For shutters of doors , windows &amp; ventilators including providing and fixing of hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required (fitting shall be paid separately)</b></p> <p>Providing and fixing aluminium work for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fit etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (glazing and panelling to be paid separately): (Section :DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr/// Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr/// Casement window: frame: 38x46x1.4@0.622kg/m, mullion: 59x38x1.4@0.729kg/m, 44x46x1.4mm@0.575kg/m, clip 21x15.4x0.85mm@0.137kg/m///)</p> <p><b>Powder coated aluminium (minimum thickness of powder coating 50Micron)</b></p>		
721a		<p><b>For shutters of doors , windows &amp; ventilators including providing and fixing of hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required (fitting shall be paid separately)</b></p>	Kg	642.00
722	21.2	<p>Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS12823 grade 1 type II in panelling fixed in aluminium doors windows shutters and partition frames with CP brass /stainless steel screws etc complete as per architectural drawing and direction of Engineer in Charge.</p>		
722a	21.2.1	<p><b>Prelaminated particle board with decorative lamination on one side and balancing lamination on other side.</b></p>	Sq.M	957.00
722b	21.2.2	<p><b>Prelaminated particle board with decorative lamination on both side</b></p>	Sq.M	1295.00
723	21.3	<p>Providing and fixing of glazing in aluminium door window ventilator shutters and partition etc with PVC /neoprene gaskets etc complete as per architectural drawing and the direction of te Engineer in Charge (Cost of aluminium snap beading shall be paid in basic item)</p>		
723a	21.3.1	<p><b>With float glass panes of 4.0mm thickness</b></p>	Sq.M	1191.00
723b	21.3.2	<p><b>With float glass panes of 5.5 mm thickness</b></p>	Sq.M	1230.00
723c		<p><b>With float glass panes of 12mm thickness</b></p>	Sq.M	2085.00
724	21.4	<p>Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS 6315 marked for doors including cost of cutting floors as required embedding in floors and cover plates with brass pivots and single piece M.S Sheet outer box with side plate etc complete as per direction of Engineer in Charge</p>		
724a	21.4.1	<p><b>With stainless steel cover plate</b></p>	Each	2712.00

725	21.5	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50micron) consisting of tee/ angle sections of approved make conforming to IS 733 in frames of false ceiling including aluminium angle with necessary CP brass screw / stainless steel screw aluminium perimeter angles fixed to walls with rawl plugs @ 450mm C/C and fixing the frame work to GI level adjusting hangers 6mm dia with necessary cadmium plated machine screws all complete as per approved architectural drawing and direction of Engineer in Charge (level adjusting hangers , ceiling cleats and expansion hold fasteners to be paid separately)	Sq.M	800.00
726	21.6	Providing and fixing of 6mm dia G.I level adjusting hangers (upto 1200mm length) fixed to roof slabs by means of ceiling cleats made out of G.I flat 40x3mm size 60mm long and expansion hold fasteners 12.5mm dia . 40mm long complete as per direction of Engineer in Charge.	Each	190.00
727	21.8	Filling gap in between aluminium frame and adjacent RCC/ Brick /Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer in Charge complete		
	21.8.1	<b>Upto 5mm depth and 5mm width</b>	RM	79.00
728	21.15	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screw etc complete		
	21.15.1	<b>Anodized (AC 15) Aluminium</b>	Each	156.00
729	21.16	Providing and fixing aluminium round shape Designer handle of 200mm size with ss screws etc complete as per direction of Engineer in Charge		
	21.16.1	<b>Anodized (AC 15) Aluminium</b>	Each	273.00
730	21.14	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS 1868 minimum anodic coating of grade AC15) subframe for windows and ventilators with extruded builtup standard tubular sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plugs and stainless steel screws etc. (Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m)	Kg	777.00
731		Providing and fixing aluminium work half glazed with 5.0mm thick glass pane and half panelled with prelaminated particle board (Nova board/ equivalent) as per IS 12823 grade 1 type II in panelling for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) (Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr)		
731a		<b>For Fixed portion only</b>	Sq.M	4244.00
732		Providing and fixing aluminium work half glazed with 5.0mm thick glass pane and half panelled with prelaminated particle board (Nova board) as per IS 12823 grade 1 type II in panelling for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) (((DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr))))		
732a		<b>For shutters of doors , windows &amp; ventilators including providing and fixing of hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required</b>	Sq.M	5279.00

733	<p>Providing and fixing aluminium work Fully glazed with 5 mm thick glass pane for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) (Fixed Section: Top/Bottom: 63.5x38.1x1.5@0.861kg/mtr Middle double groove: 63.5x38.1x1.53@0.942kg/m /// Door frame: 101x44.45x1.60@1.301Kg/mtr)</p>		
733a	<p><b>For Fixed portion only</b></p>	Sq.M	4162.00
734	<p>Providing and fixing aluminium work Fully glazed with 5mm thick glass pane for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) (((DOOR : V:85x44.45x1.8@1.301 kg/mt, Top: 114.30x44.45x1.35@1.139Kg/mt, Bottom 114.30x44.45x1.49@1.19 Kg/mtr, middle: 100x44.45x2.0@1.603Kg/mtr))))</p>		
734a	<p><b>For shutters of doors , windows &amp; ventilators including providing and fixing of hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required</b></p>	Sq.M	5363.00
735	<p>Providing and fixing aluminium work Fully glazed with 4.0mm thick glass pane for Sliding windows ventilators (CLASSIC SERIES) 18mm (Subframe) (anodised transparent or dyed to required shade according to IS 1868 minimum anodic coating of grade AC15) subframe for windows and ventilators with extruded builtup standard tubular sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plugs and stainless steel screws etc.with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) ( Frame 2track two shutter with or without fixed portion upto width of 1.5mtr :: top&amp;side: 61.85x31.75x1.0 @0.314kg/m, bottom 61.85x31.75x1.05@0.759kg/m shutter: interlock 40x27x1@0.325kg/m , side&amp;bottom: 40x18x1.09@0.39kg/m, fixed 42x18x1.28@0.503kg/m)</p>	Sq.M	4336.00
736	<p>Supplying and fixing of structural glazing with 5mm toughened reflectorol glass (saint gobain/AIS) at facade using glazing section on direct mullion &amp; transom system of appropriate section of ISI specification heavy type with mullion shall be of 80x50x1.8 mm with notch &amp; transom to be 50x50x1.8mm with notch, aluminium glazing sections shall be powder coated with heat treatment on three surfaces as of approved colour such as ivory /grey /black/ coffee or anyother approved colour using 5mm thick glass Toughened reflectosol heat reflective glass of approved colour to be pasted with 12x6mm both side adhesive spacer foam tape &amp; structural sillicon of dow corning 995 grade or its equivalent . the weather/water sealing of glass joints shall be done with 10mm wide dow conning make weather sealant of grade 789 or equivalent. the mullion of aluminium structure is to be fastened with RCC slab beam with the help os galvanised MS brackets of 75mmx75mm/6mm of length of 75-100mm with the help of M10x100 mm mechanical tampered dash fasteners. the job includes all necessary hardware cleats screws nut washers etc complete job with all materials and labour including complete the job as per direction of Engineer in charge. (Rates include all material and labour measurement to Sq.M only)</p>		6354.00

737	<p>Extra for providing opening (top hung) in the structural glazing including screw and clamp for hanging Toughened glass door shutter with all fixture such as friction hinges (355x19x1.9mm SS) two nos extra &amp; locking arrangement with pull bolt lock for fixing fixed portion and making openable as per requirement and complete as per direction of Engineer in Charge.</p>		3145.00
738	<p>Providing and fixing 4 mm thick aluminium composite panel (of approved colour / shade) for exterior wall cladding all levels and height, fixed in pre size of infill panel including structural sealant like structural silicone of dow coming 995 grade or equivalent etc with water tight and air-tight system with dow conning make weather sealant of grade 789 or equivalent either curved or straight in plan. Panel skins material 0.5 mm thick aluminium sheet (3003 - H16) core material natural polyethylene. The aluminium composite panel to be fixed with extruded aluminium basic frame powder coated on direct mullion &amp; transom system of appropriate section of ISI specification heavy type with mullion shall be of 80x50x1.8 mm with notch &amp; transom to be 50x50x1.8mm with notch (approx. basic frame weight 1.5 kg/sqm for aluminum section) angle cleats, rivets, G.I. brackets all as approved using suitable hitli / fisher / anchor bolts on RCC/Structural works including necessary accessories complete in all respects as per shop drawings, specifications and as directed by engineer- in- charge Item includes cost of Aluminium Frame, ACP Panel, Weather Sealant (White / Black colour), Gasket, Foam, Scaffolding, Fixtures all machineries and all taxes .The above work is to be carried out by a Specialized manufacturer approved by the engineer- in-charge. The cost includes all materials, labour, scaffolding charges, water &amp; electricity charges etc., complete. (For Exterior)</p>		4520.00
739	<p>Extra for providing patch fitting including screw and clamp for hanging Toughened glass door shutter with all fixture and floor clamp and extra for fixing fixed portion and making hole as per requirement and complete as per direction of Engineer in Charge.</p>		1882.00
740	<p>Labour for fixing aluminium work for doors and windows ventilators and partitions with extruded builtup standard tubular sections/ appropriate Z sections and other sections as supplied by the department or refixing of old aluminium section of approved make conforming to IS 733 and IS 1285 fixed with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene felt etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (glazing and panelling to be paid separately):</p>	Sq.M	109.00
741	<p>Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top &amp; bottom pivot &amp; floor spring type fixing arrangement and making necessary holes etc. for fixing pivot &amp; spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle to be paid separately).</p>	Sq.M	6059.00
742	<p>Providing and fixing of designer SS tubular door handle of tubular frame of 32 mm dia 3mm thick of height 750-1500mm height of approved make and brand and as per requirement including all fitting and fixture complete as per direction of Engineer incharge to Glass door cost including of all fixture labour with making hole in toughened glass door etc complete. for Double leaf/ single leaf shutter for one set (two nos for two side of door)</p>	for one Pair	2664.00
743	<p>Providing and fixing anodised aluminium grill 75mm opening s(anodised transparent or dyed to required shade according to IS 1868 with minimum anodic coating of grade AC15) of approved design/ pattern, with approved standard section (single groove section: 63.5x38.10mm x1.50mm thick alaround (0.861 kg/mtr)) and fixed to the existing window frames/ opening with frame and subframe for windows and ventilators with extruded builtup standard tubular sections as per standard design of approved make conforming to IS 733 and IS 1285 fixed with rawl plugs and stainless steel screws etc.with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all including cutting of opening for operation of handles all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M)</p>	Sq.M	3265.00

744		<p>Providing and fixing aluminium work Fully glazed with 4.0mm thick glass pane for Sliding windows ventilators (CLASSIC SERIES) 18mm (Subframe) (anodised transparent or dyed to required shade according to IS 1868 minimum anodic coating of grade AC15) subframe for windows and ventilators with extruded builtup standard tubular sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plugs and stainless steel screws etc.with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) ( Frame 3track 3/2 shutter with or without fixed portion upto width of 1.5mtr to 2.4mtr :: top&amp;side: 92x31.75x1.05 @0.759kg/m, bottom 92x31.75x1.10@0.911kg/m shutter: interlock 40x27x1@0.325kg/m , side&amp;bottom: 40x18x1.09@0.39kg/m, fixed 42x18x1.28@0.503kg/m)</p>	Sq.M	4603.00
745		<p>Providing and fixing aluminium work Fully glazed with 5.0mm thick glass pane for Sliding windows ventilators (Premium/ultra SERIES) 25mm (Subframe) (anodised transparent or dyed to required shade according to IS 1868 minimum anodic coating of grade AC15) subframe for windows and ventilators with extruded builtup standard tubular sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plugs and stainless steel screws etc.with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) ( Frame 3track 3/2 shutter with or without fixed portion upto width of 1.5mtr to 2.4mtr :: top&amp;side: 116x25.4x1.4 @1.005g/m, bottom 116x25.4x1.35@1.434kg/m shutter: interlock 60x25.4x1.15@1.278Kg/m , side&amp;bottom: 50x25.4x1.2@0.731kg/m, fixed 50x25.4x1.3@0.869kg/m)</p>	Sq.M	7715.00
746		<p>Providing and fixing aluminium work Fully glazed with 5.0mm thick toughened glass pane (saintgobain/ golden eye/AIS)for Sliding windows ventilators (ultra SERIES) 30mm series class D (Subframe) (anodised transparent or dyed to required shade according to IS 1868 minimum anodic coating of grade AC15) subframe for windows and ventilators with extruded builtup standard tubular sections of approved make conforming to IS 733 and IS 1285 fixed with rawl plugs and stainless steel screws etc.with rawl plug and screw or with fixing clips or with expansion holdfasteners including necessary filling up of gaps at junction at top and bottom and sides with required PVC /neoprene fillet etc aluminium sections shall be smooth rust free straight mitred and jointed mechanically wherever required including cleat angles , Aluminium snap beading for glazing /panelling CP brass /stainless steel screws all complete as per architectural drawings and direction of Engineer in Charge (all fittings such as hinges handle and beading etc all are included and measured in Sq.M) ( Frame 3track 3/4 shutter with or without fixed portion upto width more than 2.4mtr :: top&amp;side: 167.5x41x1.6@1.745kg/m, bottom 167.5x41x2.0@2.298kg/m shutter: interlock 50.60x30x1.6@0.869g/m , side&amp;top: 50.8x30x1.6@0.731kg/m, fixed 50x30x1.@0.950kg/m bottom: 60x29x1.65@1.278kg/m)</p>	Sq.M	8971.00
747		<p>Add/deduct Extra for providing heavy/ light sheet float glass panes of ordinary float glass in glazed doors , Windows (Aluminum) and clear story windowshutters (area of opening of glass panes excluding portion inside rebate shall be measured) complete in all respect including removing and refixing etc.</p> <p><b>5mm thick instead of 8mm thick float glass</b></p>	Sq.M	-375.00
748	9.11.1	<p>Extra for providing toghen glass in place of float glass including removing and refixing including transportation and charge of toughening complete including all materials labour etc complete as per direction of Engineer in charge</p> <p><b>All glass up to 12mm thick</b></p>	Sq.M	1734.00
749		<p>Add/deduct Extra for providing heavy/ light sheet float glass panes of ordinary float glass in glazed doors , Windows (Aluminum) and clear story windowshutters (area of opening of glass panes excluding portion inside rebate shall be measured) complete in all respect including removing and refixing etc.</p> <p><b>12mm thick instead of 8mm thick float glass</b></p>	Sq.M	577.00

750	Providing and fixing powdercoated coloured Aluminum glazed casement windows and ventilators of standard aluminium section of heavy quality (JINDAL/HINDALCO/Equivalent) of colour black ,coffee brown, yellow, red , etc joints mitred and screwed with SS screw of appropriate size and fixed to wall with SS screw and joint filled properly between wall and window complete screw or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes 4mm float glass (golden eye/saint gobain/AIS/ equivalent) with glazing aluminium clips and special of approved make complete including friction hinges of stainless steel 304 grade 355x19mm two nos and including other fitting (stay ,handle lock ),necessary hinges or Pivots (box/ tubular hinges/ pivot hinges ) as required. complete as per direction of Engineer in charge. (Aluminium window with Z section 38x46x1.4@ 0.622 Kg/m for frame and Mulian 59x38x1.4@0.729 kg/m for shutter section : 44x46x1.4 @0.575kg/m clip 21x15.4x0.85@0.137 Kg/Mtr )	Sq.M	7238.00
751	providing and fixing 100mm brass locks of godrej/link (best quality of approved make for aluminium doors including cutting and making goodetc and fixing with ss screws etc complete as per direction of Engineer in Charge	Each	965.00
752	providing and fixing SS patch fitting lock for glass door of godrej/link (best quality of approved make for toughened glass doors including cutting and making goodetc and fixing with ss screws etc complete as per direction of Engineer in Charge	Each	507.00

## 22.0 WATER PROOFING

753	22.5	Providing and laying water proofing treatment in sunken portion of Wcs, bath rooms etc applying cement slurry mixed with water proofing compound (Sika /FOSROC/Zycosil/Hydrocrete) consisting of applying A) first coat of slurry of cement @0.488 kg/Sq.m mixed with water proofing cement compound @0.253 kg/Sqm as per IS 2645 this layer will be allowed to air cure for 4 hoursB) second layer of slurry of cement @0.242 kg/SqM mixed with water proofing cement compound @0.126Kg/Sqm. thislayer will be allowed to air cure for 4 hoursC) third coat with glass fibre cloth of 400 micron with cement slurry and allowed to air cure for 4 hours D) 4th and top coat with Cm 1:4 with cement punning and allowed to air cure for 24 hous and followed with water curing for 48 hours. the rate including preparation of surface , treatment and sealing of all joints , corners junctions of pipes and masonry with polymer mixed slurry with glass fibre 400 micron jalli of one layer over the slurry coat with a covering of cement plaster Cm1:4 with cement punning complete as per direction of Engineer in charge including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-Charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in- Charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-Charge. d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement : 4 coarse sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineer-in-Charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge: With average thickness of 120 mm and minimum thickness at khurra as 65 mm	Sq.M	467.00
754	22.7	Providing and applying cement slurry coat (minimum two layer ) admixed with acrylic polymer modified (Hydrocrete/ZYCOSIL/FOSROC ) water proofing cum bonding agent as per manufacturer specification with cement slurry 1:2 (1 hydrocrete : 2 cement) followed by a one coat of brush topping surface preparation complete in all respect over RCC surfaces and exposed portion for water proofing complete as per direction of Engineer inCharge.	Sq.M	971.00
755		Providing and applying cement slurry coat (minimum two layer ) admixed with acrylic polymer modified (Hydrocrete/ZYCOSIL/FOSROC ) water proofing cum bonding agent as per manufacturer specification with cement slurry 1:2 (1 hydrocrete : 2 cement) followed by a one coat of brush topping surface preparation complete in all respect over RCC surfaces and exposed portion for water proofing complete as per direction of Engineer inCharge.	Sq.M	285.00

756	Providing and applying admixing of Superplasticizer cum integral water proofing compound @ 300ml/ 0.5 kg (C max/ Ado Additives Equivalent) per 1 bag of cement complete in all respect and direction of Engineer inCharge.	per bag of cement	140.00
757	(PRESSURE GROUTING) Injecting and grouting of cement slurry admixed with non shrink grouting compound grout as per manufacturers specification (SIKA/FOSROC/Dr Fixit/ZYCOSIL/Hydrocrete) e.g @500Gm/ per one bag of cement slurry by hand operated pump under maximum pressure of 2.5kg per Sq.CM and fixing of 18Nominal dia nozzle of suitable length at a distance of 1. m C/C on grid pattern or at the construction joints or near water leakages cocomplete in all respects (rate including all materials and labour). as per direction of Engineer in Charge (of any thickness of wall)	per nozzle point	130.00
758	Providing and fixing in position of special type PVC water stops conforming to IS12200 for construction between RCC members and fixed to the reinforcement with winding wire of 230x12mm thick in suitable position as per direction of Engineer in Charge.	RM	260.00
759	Providing and making water proofwith water proofing materials (water proofing cum bonding agent ) as per IS 2645as approved by the Engineer incharge for RCC slab and wall of water tank with pressure grouting with 2.5 kg/Sqm pressure and two coats of chemical as per manufacturers specifications etc complete with cement plastering with CM1:4 and punning over the chemical painted walls complete as per direction of Engineer in charge (SIKA/FOSROC/Dr Fixit/ZYCOSIL/Hydrocrete) measurement of inside wall to be taken in Sq.m) all materials labour equipment included	Sq.M	387.00
760	Providing Filling the Expansion joint with joint sealing compound on polyeurthane based or equivalent including a backup material like Thermocole / Celatex board inside the groove of expansion joints. The width to depth ratio of sealant should be 2:1 <b>50mm gap</b>	RM	534.00
761	Providing Filling the Expansion joint with joint sealing tape (Combiflex or equivalent ) including a backup material like Thermocole / Celatex board inside the groove of expansion joints Complete as per manufacturer's Specification and direction of Engineer in Charge		
762	<b>50mm gap</b>	RM	1421.00
763	Providing and laying screed concrete on the top of the roof in 1:2:4 (1 cement :2 sand : 4 stone chips 10mm down gauge) with water proofing admixture Conforming to IS:2645, and crack resistance fibre like RECRON 3S or equivalent with slope of 1 in 100 and necessary hollering as per direction of Engineer- in-charge. (minimum thickness of 75mm )	Sq.M	401.00
764	Providing and applying cement slurry coat (minimum two layer ) admixed with polymer modified water proofing cum bonding agent as per manufacturer specification and direction of Engineer inCharge.	Sq.M	125.00
765	Providing and applying of cementitious crystalline based water proofing for concrete rafts,wall,water tanks,concrete floors,Positive & Negative Sides of the Retaining Wall etc. with crystal T1/T2 system. The application to be done from - ve (negative) / +ve (positive)side on a wet open pore concrete surface with brush @ 0.8 Kg of cristol T2 as per manufacture specification. including making grooves of 10 x 15 mm size on the construction joints and treating with cristol T1:1 part of clear water as per manufactures specification etc. and as per direction of engineer - in -charges. The rate also includes the clearing of surface to be treated with air compressor wherever required. (Dr fixit/ SIKA/FOSROC)	Sq.M	734.00
766	Providing and laying APP (Atactic polypropylene polymer) modified prefabricated five layer minimum 3mm thick waterproofing membrane , mineral top finished reinforced with non-oven polyster matt manufactured by Bitumat co. Ltd, Suprema general membranes ,Tamko,Sika India pvt ltd ,STP ltd,Hydrotech ltd,Dr. fixit , prodorite ltd or equivalent, consisting of a coat of bitumen primer for bitumen membrane @ 0.40 ltr /Sq.m by the same membrane manufacture of density at 25°C , 0.87-0.89 kg/ltr and viscosity 70-160 cps. over the prime coat , the layer of membrane shall be laid using Butane torch and sealing all joints etc and preparing the surface by filling undulations with cement mortar (1:6) and curing the surface complete in all respect ( to be paid separately ) and as per direction of Eng-in-charge.	Sq.M	381.00
767	Providing and fixing of sheet covering over expansion joints with iron screws as per design to match the colour /shade of wall tretment <b>ACP sheet fluted strips 3 mm thick 200mm wide</b>	RM	326.00



**LAWN & GARDEN (HORTICULTURE)**

768	Earthwork in surface excavation not exceeding 30Cm in depth but exceeding 1.5M in width as well as 10 Sq.M on Plan including disposal of excavated earth upto 50m and lift upto 1.5mtr, disposed soil to be levelled and neatly dressed: All kind of soils	Sq.M	34.00
769	Supplying and stacking of good earth at site including royalty and carriages upto 1 Km ( Earth measured in stacks will be reduced by 20% for payment)	Cum	230.00
770	Supplying and stacking of sludge at site including royalty and carriages upto 1 Km ( sludge measured in stacks will be reduced by 8% for payment)	Cum	165.00
771	Supplying and stacking at site dump manure from badli or other approved source including carriage upto 1 km manure measured in stacks will be reduced by 8% for payment ) screened through sieve of IS designation 20mm)	Cum	158.00
772	Rough dressing of trenched ground including breaking clods complete as per direction of Engineer in charge	100 Sq.M	55.00
773	Uprooting of weeds from trenched area afer 10 to 15 days of its flooding with water includign disposal of uprooted vegetation	100 Sq.M	177.00
774	Fine dressing of ground complete	100 Sq.M	133.00
775	Spreading of sludge , dump manure or and /or good earth in required thickness (cost of sludge dunmp manure and/or good earth to be paid separately)	100 Sq.M	19.00
776	Mixing of earth and sludge manure in proportion specified or directed.	100 Sq.M	130.00
777	Grassing with doob grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing includign supplying good earth if needed (the good earth shall be paid separately) In rows 5CM apart in either direction	100 Sq.M	481.00
778	Digging holes in ordinary soil and refilling the same with excavated earth mixed with dump manure or sludge in the ratio of 2:1 by volume (2 parts stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing includign removal of rubbish and surplus earth if any with all leads and lift (costs of manure , sludge or extra good earth if needed to be paid separately)	Each	26.00
779	Filling of earth and sludge or dump manure in the desired proportion in trenches flooding with water and levelling (cost of supplying good earth and sludge or manure and mixing excluded)	Cum	7.00
780	Grass turfing with doob or other type of grass on sloping portion of roads, embankment, channel etc including watering and maintenance of the turfing for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing including supplying good earth if needed (cost of the good earth and other material such as sludge and dump manure and cost of labour included ) including mixing and spreading of all materials at site.	Sq.M	42.00
781	Supplying , spreading Di ammonium phosphate (DAP) at site including labour and materuial charges including transportation etc complete as per direction of Engineer inc harge	Kg	24.00
782	Supplying , spreading Neem oil cake at site including labour and materuial charges including transportation etc complete as per direction of Engineer inc harge	Kg	24.00
783	Supplying , spreading Bone meal/rally meal at site including labour and materuial charges including transportation etc complete as per direction of Engineer inc harge	Kg	36.00
784	Supplying , spreading Aldrin/methyl parathion at site including labour and materuial charges including transportation etc complete as per direction of Engineer inc harge	Kg	34.00
785	Spreading of sludge , dump manure or and /or good earth/ fertilizers by spreading it in the dug up soil and mixing them properly in required thickness rough dressing of soil and uprooting the vegetation including fine dressing of soil by providing 5% slope for run off water drainage towards the direction of natural slope complete as per direction of Engineer in charge (cost of sludge dunmp manure and/or good earth to be paid separately)	Sq.M	5.00

786	Supplying and planting of rooted grass cuttings of pure selection Grade-I grass (Zyosia japonica) by making it into suitable sizes with with minimum 2-3 nodes, spreading it in the grassing area inserting the grass into soil at an average spacing of 100x100mm with the help of suitable tools , watering the grassed area evenly in sufficient quantity and mostening the soil upto depth of 6to 8cm drawing water from the nearest water point to keep the planting materials alive. Maintaining the grassed area by weeding watering rolling and mowing of lawn for aperiod of 90days from the date of completion of work.	Sq.M	56.00
787	Top dressing of the newly developed lawn by supplying mixing and spreading evenly the mixture of sweet earth fine sand well composed compost DAP, neem oil cake and antitermite treatment after 45 days complete as per direction of Engineer in charge	100 Sq.M	653.00
788	Grassing with CHINA MATT grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing includign supplying good earth if needed (the good earth shall be paid separately) In rows 5CM apart in either direction	100 Sq.M	2827.00

## 24.0 NON SCHEDULE

789	Proping R.C.C. slab and beam for maintenance work such as chipping of wall and dismantling etc and removing the same after work complete as per direction of Engineer in Charge <b>Upto 4.5mtr height</b>	Sq.M	65.00
790	Providing and mixing RECRON 3S triangular fibre of 6-12mm cut length in pouches of 125mm gram each for mixing in cement concrete / cement plaster as per manufacturers specification as directed by Engineer in Charge.	Each	70.00
791	Dismantling and removing of 2.5cm thick grading concrete from roof slab cleaning the surface lowering and removing debris with in 50mtr lead.	Sq.M	45.00
792	Removing of old tarfelt from roof slab cleaning the surface , lowering and removing the debris with in 50mtr lead	Sq.M	35.00
793	Dismantling and removing marble chips flooring including stacking the reusable materials for reuse and removing the debris within 50mtr lead.	Sq.M	42.00
794	Taking out the doors and window shutters and refixing them including screws as may be required. Including Cost of repairing of old door shutter of any size as per requirement along with refixing old fittings such as tower bolt, sliding door bolt, handles, (new fittings to be paid separately) with new hinges including painting the new portion with synthetic enamel paint of required shade with one coat of wood primer(cost of wood to be paid separately) including fixing in existing opening complete (Any size of any thickness)as per direction of Engineer in Charge.	Sq.M	518.00
795	Easing ,oiling and adjusting the door & window including the cost of screws etc complete as per direction of Engineer - in charge.	Each	171.00
796	Providing and replacing damaged steel window members with 'Z' or 'L' section or with box or "D" hinges including taking out shutter with frame and refixing the same after repairing including painting the window (cost of replacing glass panes and new fittings such as handle stay etc. to be paid separately) complete as per direction of Engineer in charge.	Sq.M	876.00
797	Labour for dismantling , fitting and refixing of M.S gates and Grills including cutting into size and welding all complete as per approved design including cost of all materials complete as per direction of Engineer in charge (Cost of materials and such as M.S flats and other consumable items welding machine etc are to be supplied by the contractor ,only power will be supplied free of cost within distance of 100.00mtr )	Sq.M	386.00
798	Repairing wherever required of bibcock pillar cock, stopcock, pvc waste pipe low /high level cistern and other fittings of C.P. brass etc complete including providing and fixing as per requirement	Each	41.00
799	Providing and fixing polythene water storage tank cover of approved brand like Sintex tank cover with all necessary fittings as per direction of Engineer in charge.	Each	536.00
800	Refixing of old GI Pipes, complete including cost of GI fittings and clamps, screw cutting and making good etc. (internal work) as per direction of Engineer in charge. <b>a) 15 mm to 50 mm nominal dia</b>	RM'	74.00

801	Leak repair of the pvc over head tank at the junction of fittings and wall including opening the existing pipe fittings and refixing with new jam nuts. And required GI fittings and leak proof by M-seal as per requirement and as per direction of Engineer in charge.	Each	320.00
802	Repairing leakage of toilet/Bath/W.C. and kitchen through P/S trap . by cementing with neat cement slurry as per direction of Engineer-In-charge	Each	79.00
803	Cleaning of porcelain WC pan wash basin, and sink with porcelain clean acid with making complete germ free up to get up the white dazzling colour including using M-Seal as and where required to make the joints leakage proof as per direction of the Engineer in charge.	Each	131.00
804	Refixing old CI/SCI after dismantling from its position as per requirement by providing clamps and scaffolding and making good the walls as per direction of Engineer in charge		
	<b>a) 50 mm to 150 mm nominal Dia</b>	RM'	111.00
805	Supplying and welding of GI pipes for desired angle including cutting and welding of appropriate size without any water leakage and making good the damages and welding with pipes /flanges/valves etc complete with fillet weld complete as per direction of Engineer in charge		
	<b>a) Upto 100mm dia pipe</b>	Each	106.00
806	Repairing wall crack after removing the loose mortar and cutting 8 cm. Grooves horizontally 35 cm. Long and 12 cm. Deep at 45 cm. Interval and inserting 10 mm. Dia M.S. Rod cut to required size in The groove and filling the same with cement concrete 1:2:4 and Finishing the surface with cement mortar 1:4	Sq.M	203.00
807	Providing and constructing brick drain as per standard slope and design with a layer of 100 mm thick and 750 mm wide PCC with cement concrete 1:4:8 and K.B. Brick work in cement mortar (1:6), 23 cm on both side with 25mm thick CC over wall for protection. width on either side with depth 100mm to 300mm including cement plaster(1:6) with cement punning. (section of Drain 250x300 mm ) including earth work etc complete in all respect as per direction of Engineer In charge.	RM'	1135.00
808	Dismantling the damaged masonry drain and reconstructing it with a layer of 100mm thick and 400 mm. wide PCC cement concrete 1:4:8 and K.B. Brick work in cement mortar (1:6), half brick work on either side with Cm 1:4 with depth 75mm to 250mm height including cement plaster(1:4) with cement punning. (section of Drain 250x150 mm ) etc complete in all respect as per direction of Engineer In charge.	RM'	417.00
809	Providing and fixing chicken wire mesh of approved quality and manufactureer in between the R.C.C & brickwork as per direction and uptop satisfaction of Engineer In charge.	Sq.M	189.00
810	Cleaning silt, sapling, dust etc its disposal to outside compound and washing O.H tanks with lime water and disinfecting with bleaching powder using 150 gms of bleaching powder in 1000to 1500 lits. tank keeping it in the tank at least for three hours before flushing and cleaning (at the interval of 1 year)(One tank shall be taken as one job).	Each	244.00
811	Providing and Repairing existing PVC low level cistern / Automatic flushing cistern (5Litr to 10 litr capacity) by making necessary repairs and fitting required fixtures such as float , handle , L bend etc complete (all materials to be provided by the contractor) and repairing internal fittings for making workable as per direction of Engineer in Charge.	Each	408.00
812	Providing and fixing of handle of approved quality for PVC LD cistern.	Each	718.00
813	Providing and fixing of float valve set of approved quality of PVC LD cistern.	Each	535.00
814	Cleaning open surface drain includng complete removal of earth , silt slush, brick bats garbages and other refuses, disposing of the same to dumping site in campus as per direction of Engineer in Charge.	RM'	29.00
815	Uprooting trees from the departmental structures developed at any point by arranging scaffolding including dismantling of required portions with complete removal of roots and making necessary repair as per direction of the Engineer-in-charge	Each	95.00
816	Cleaning of dust bin fortnightly filled with garbages (if filled up completely) and solid waste etc. and disposal of the same to the dumping yard as directed in the campus	Each	91.00
817	Cleaning the roof top surface , terrace, portico etc by scraping the fungus/algae if any and cleaning the garbages at all height by brooming the top surface before monsoon and disposal the same to the dumping ground as directed by Engineer in Charge	Sq.M	14.00

818	Cleaning the underground sump of capacity 10000 Gallon to 50000 gallon capacity by pumping water, mud slush, silt by providing electrical or diesel pumping set of 3600ltr capacity per hour including cleaning of mud slush silt sapling fungi dust etc including disposal into dumping ground and washing tank with lime water and disinfecting with bleaching powder etc complete as per direction of Engineer in Charge. (To be carried out Once in a six month)	Each	16813.00
819	Clearing of all manhole/chambers of all size in the campus complete removal of earth silt, slush brick bats, garbages and other refuses disposing of the same to the dumping site in the campus complete as per direction of Engineer-in-charge (Sweeping cleaning of manholes/ chambers shall be done once in three month normally but the frequency may changes as per site requirement	Each	285.00
	Note:- Rate includes the cost of cleaning of manhole/chamber, dewatering If required including removing of manhole/chamber cover and fitting the Same back in position after cleaning etc. complete Payment will be made for each cleaning of manhole.		
820	Cleaning of sewer line of S.W. pipe/RCC pipe including complete removal of earth, slit, sludge, brick bats, garbages and other refuses disposing off the same to dumping site in campus complete as per direction of Engineer –in-charge (including cost of T & P)		
820a	<b>a) Complete cleaning shall be done once in three month normally but the frequency may be charged as per the site requirement.</b>	RM'	12.00
820b	<b>b) Daily cleaning as per complaint issued by the Department (not exceeding 750 m)</b>	RM'	2.00
821	Removing and refixing wash basin/KITCHEN SINK including the cost of new CI/MS brackets and making and repairing the wall complete as per direction of Engineer in charge.	Each	191.00
822	Leak repairing of Toilet and W.C in Sunken roof by dismantling the WC pan and cleaning of debris by disposal the same to the dumping yard and providing and fixing of new Orissa pattern pan with integral water proofing treatment with 12mm cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement: 3 Sand) (with two coats of cement slurry admixed with polymer modified water proofing cum bonding agent as per manufacturer specification ) of sunken roof and cementing the joint with neat cement for complete water tight, and repairing the flooring wherever necessary, complete as per direction of Engineer in Charge	Each	2626.00
823	Credit cost of Unservicable brass/CP brass Bibcock stopcock, float valve ball valve gate valve	Kg	-50.00
824	Credit cost of Unservicable G.I pipe of any dia meter and fittings such as elbow ,tee etc	Kg	-8.00
825	Credit cost of unservicable C.I /SCI pipe and fittings	Kg	-20.00
826	Credit cost of Old M.S /TMT reinforcement	Kg	-20.00
827	Credit cost of old/new bricks	Each	-3.00
828	Credit cost of old damaged wooden shutter of any size of surface are less than 1 Sq.M	Each	-15.00
829	Credit cost of old Chowkhat of any size	Kg	-3.00
830	Credit cost of PVC fitting and pipe of any size	Kg	-2.00
831	Credit cost of old damaged Gate, grills, railing , channel, I section etc	Kg	-20.00
832	Credit cost of aluminium extruded body channel hinges, tapered clips, fitting setc	kg	-80.00
833	Providing and fixing of scaffolding for repair and maintenance work upto Vth floor level (all scaffolding materials and labour arranged by the Agency) and dismantling the same after completion of work as per direction of Engineer in Charge.	For one day or part thereof	1183.00
834	Providing and fixing and lowering of 1 HP submersible pump (Klrosker/C&G) in borewell including lowering and fixtures for fastening and other required fixtures such as paint thread for jointing of pipe and including star delta starter of SIEMENS/ L&T/ CG etc with fixtures complete in all respect as per direction of Engineer in charge. All labour supplied by the agency. cost of all transportation to the execution site is bear by the agency.	One set	21872.00
835	Providing and fixing of 4 core flat submersible cable for submersible pump including fixing and connection to the Panel box etc complete as per direction of Engineer in charge	RM'	56.00
836	Providing and making Bore well of 125mm dia including 125mm dia CPVC pipe including all filling materials and drilling the hole with pneumatic type drilling machine complete in all respect with borewell cap all materials and labour supplied by the agency.	RM'	981.00

837	Clearing jungle with electric/ diesel operated cutting machine including uprooting of rank vegetation, grass brush wood trees and sapling of girth upto 30 cm measured at a height of 1mtr above the ground level and removal of rubbish upto a distance of 50M outside to periphery of the area cleared and making the road side neat and clean and removal of debris complete as per direction of Engineer in Charge. (Log book to be maintained and all including cleaning measured per hour of machine run).	per hour	301.00
838	Making hole upto 300mm diameter and finishing the hole by filling as per requirement after insertion of AC ducting/Exhaust fan/ electrical intruder and making good the same as per site and making good complete including painting and plastering etc complete as per direction of Engineer in charge.	Each	172.00
839	Providing and fixing of Modular Toilet Cubical of inside size of 1.2x1.5mtr of height of 2.1mtr and 140mm above floor level with SS square frame 20x20mm/angle 25x25mmx3mm of heavy quality and top frame of 50x20mm for stability etc complete and leg as per required design and drawing with all fixture such as SS designer handle and SS tubular hinges box hinges with auto close system (with parliamentary spring hinges) with pre laminated flat pressed 3 layer 12mm (medium density) particle board or block board / MDF board IS 3087 marked with both side decorative (as per approved colour with laminates (Marino or equivalent) and lamination grade-I Type-II exterior grade IS:12823 marked for toilets with screw and fittings wherever required edges to be laminated with approved laminates including transportation and fixture and as per requirement of client./ Engineer.	One set of cubical	26672.00
840	Dry stone pitching on the sides of bank, roads for retaining of earth of minimum thickness of 300mm (Not Exceeding 30Cm in depth 1.5m in width but exceeding 10 Sq.M on Plan) on a bed of sand including filling joints with river sand complete as per direction of Engineer in charge including earth work sand all complete (work including all labour and materials). (measurement done on Sq.M)	Sq.M	489.00
841	Labour for Laying in position centrifugally cast (Spun) iron/ MS pipe S&S or flanged pipes (Excluding cost of pipe) complete including all as per direction of Engineer in charge	Quintal	95.00
842	Labour for fixing and lowering of submersible pump in borewell including lowering and fixtures for fastening and other required fixtures such as paint thread for jointing of pipe complete in all respect as per direction of Engineer in charge. All labour supplied by the agency. cost of all transportation to the execution site is bear by the agency.	Each	1548.00
843	Labour for shifting of plant Equipments and other furniture of heavy weight from the laboratory/ office to outside for repairing and maintenance and cleaning the debris and stacking the usable materials as per direction of Engineer in charge complete in all respect. Labour supplied by the agency (measurement made to each No for weight more than 50 Kg	Each	89.00
844	Labour for cleaning and washing of quarter with surf using water jet and broom after vacation by the occupant complete for occupation as per direction of Engineer in Charge.	Each	183.00
845	Labour for cleaning and painting of roof surface with department supplied chemicals/ surface coating chemicals for water proofing of old RCC slab/ folded roof slab/ sloped roof complete including cleaning and painting the surface (labour and materials such as broom brush etc supplied by the agency. complete in all respect as per direction of Engineer in charge.	Sq.M	13.00
846	Making supplying and fixing of stainless steel letters (hollow type) in brush finish as per the detailed drawing and design and approved languages (ODIA, HINDI, English )and of different size and as mentioned and approved , depth of letters 3/4"of required pattern and design using sheet thickness of 14gauge and 304 grade including computer graphics machine cutting, buffering and painting and fixing on exterior surface of building with 5/8"dia bolt welded and fixed over the granite/ACP/RCC/masonry at all height above the ground level with dash hold fastener of necessary sizes and sealing adhesive complete at any height in proper alignment including the cost of polishing /buffing, scaffolding etc including labour transportation and materials complete as per approved drawing and design and direction of Engineer in Charge	Sq. Inch	82.00