

GUJARAT BIOTECHNOLOGY UNIVERSITY



BILL OF QUANTITIES

GBU Gujrat Construction of Housing Block ,Hostel Block, Director Residence and Student activity Centre - Package B

Architect:
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C-85, Shivalik,
New Delhi – 110017



Abstract of Cost

GBU Gujrat - Detailed estimate for Construction of Housing Block ,Hostel Block, Director Residence and Student activity Centre - Package B

Sl. No	Description	Total
1	Earth Work	4256597
2	Concrete Work	5166871
3	R.C.C. Work	255049962
4	Brick Work	22304271
5	Marble Work	14810432
6	Wood Work & PVC Work	26803724
7	Steel Work	25254388
8	Flooring	59052718
9	Roofing	14166760
10	Finishing	24496392
11	Aluminium Work	52009136
12	Waterproofing	12202829
13	Ext development	75082441
14	Plumbing work	25404325
15	Fire Fighting Work	15551197
16	MEP Work	230109862
	Total	861721905
	Add GST @ 18%	155109943
	Total	1016831847
	add 1% Labour Cess	8617219
	Total	1025449066



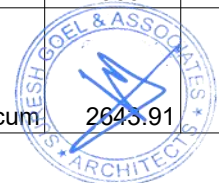
MEP Work		
	Part A	
1	Sub Head - I - Point Wiring	15590791
2	Sub-Head - II - Panels & DB'S	4484515
3	Sub Head - III - Cables	829174
4	SH - IV - Supply & Installation of Light Fitting, F	9707697
5	Sub-Head - V - Earthing & Lightning Conductor	1390165
6	Sub Head - VI - Passive Cabling & LAN System	12224955
7	Sub Head - VII - IPABX SYSTEM	1464556
8	Sub Head - VIII - Fire Detection & PA System	5350598
9	Sub Head - IX - CCTV System	10368110
10	Sub Head - X - LIFTS	25026569
11	SUB HEAD-XI-SUB-STATION EQUIPMENT	41845552
12	SUB HEAD-XII-EXTERNAL LIGHTING	4327218
13	SUB HEAD-XIII-DG SET	6564634
14	SUB HEAD - XIV - SOLAR POWER GENERAT	11286430
15	HVAC Work	45225406
	Part B - Elerctrical Operation and Day to day Compaint	20807292
	Operation HVAC	10081503
	Fire Fighting Operation and day to day Complaint	3534696
	TOTAL	230109862



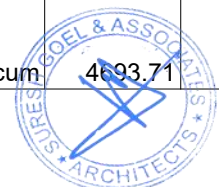
Bill Of Quantities

GBU Gujrat - Construction of Housing Block ,Hostel Block, Director Residence and Student activity Centre - Package B

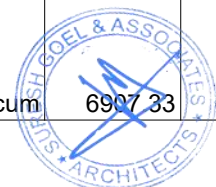
S.No.	SOR No	Description	Qty	Unit	Rate excl GST	Amount
		Sub- Head - I , Earth Work				
1	26117D	Clearing and grubbing road including uprooting rank vegetation grass bushes, shrubs , sapling and trees girth upto 300mm removal stumps of trees cut earlier and disposal of unserviceable (D) By mechanical means in area of thorny jungle.	3	Hect	34451.77	103355
2	AR	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials , back filling in sides of sides of foundations etc. in layers not exceeding 20cm .in depth consolidating each deposited layer by ramming and watering etc and disposing off the excavated stuff upto any lead and lift. Dense or hard soft soil	9531	cum	174.00	1658394
3	AR	Excavation for foundation for a depth from 1.5m to 3.0m depth including sorting out and stacking of useful materials back filling in sides of sides of foundations etc. in layers not exceeding 20cm .in depth consolidating each deposited layer by ramming and watering etc and disposing off the excavated stuff upto any lead . (D)Dense or hard soft soil . Quantity for excavation shall be paid based on actual dimensions in the drawings	5703	cum	186.58	1064066
4	AR	Excavation for foundation for a depth from 3.0m to 5.0m depth including sorting out and stacking of useful materials back filling in sides of sides of foundations etc. in layers not exceeding 20cm .in depth consolidating each deposited layer by ramming and watering etc and disposing off the excavated stuff upto any lead . (D)Dense or hard soft soil . Quantity for excavation shall be paid based on actual dimensions in the drawings	3704	cum	198.31	734540
5	04007A	Filling in plinth with (good quality) sand under floors including watering, ramming, consolidating and dressing etc. complete.	602	cum	455.53	274229
6	22007	Carring out plinth treatment to post construction / during construction by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20EC chemical emulsion with 19 liter give 1% concentration inclusive of one litre chemical emulsion appication at the rate of 5Litre chemical / Sqm of surface is recommended as per I.S. Plinth area only shall be measured for payment purpose.	4023	sqm	104.90	422013
		TOTAL				4256597
		Sub - Head - II , Concrete Work				
7	05003A	Providing & laying cement concrete 1:3:6 (1: cement: 3 coarse sand: 6 machine crust stone aggregates 40 mm nominal size) for all depths below and up to plinth level in foundations and curing etc. complete including cost of formwork in Footings & Ground, Plinth Beams & below Floors	254	cum	2966.24	754849
8	05004A	Providing and laying cement concrete 1:4:8 (1- Cement : 4- coarsesand : 8- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	1134	cum	2643.91	2998194



9	05010AA	Providing and laying cement concrete 1:2:4 (1 Cement :2 - coarse sand :4 - crushed stone aggregates 20 mm nominal size) In Foundation & plinth and curing complete including cost of form work, dewatering etc. Rates are incl. shoring & strutting and dewatering. No extra payment will be made for Shoring, Strutting and dewatering	56	cum	3616.90	202546
10	05021A	Providing and laying damp proof course 100 mm thick cement concrete 1:2:4 (1- Cement: 2coarse sand: 4stone aggregate 10 mm nominal size) and curing complete including providing and mixing water proofing material in cement concrete in mix proportion recommended by the manufacturers.	19	sqm	778.22	14786
11	MR	Providing and filling in Aerated block bats (broken pieces) in single or multiple layers in super structure , filling the joints with sand mortar (not more than 20%)20mm thick cement sand mortar screed in proportion of 1:6 shall be laid as per drawing. Crushing strength of aerated concrete block /bats shall not be less than 40 kg/sqcm, minimum density in dry oven condition between 651 to 750 kg /cum, thermal conductivity shall not exceed 0.3W / mk, fire resistance 4 hours , in line and plumb , cleaning the surface with tools and tackles , at all level, all height , all floors including curing , scaffolding , complete as per specifications , drawings and directed by engineer in charge.	346	cum	1675.00	579550
12	MR	Making plinth protection 50mm thick of cement concrete 1:3:6 (1cement:3 coarse sand:6 graded stone aggregate 20mm nominal size over 75mm thick bed of dry brick ballast 40mm nominal size , well rammed and consolidated and grouted with fine sand , including necessary excavation, levelling and dressing & finishing the top smooth, including toe wall 230mm wide and 450mm deep on the edge to plinth protection with common burnt clay bricks including grouted with cement mortar 1:4 (1cement:4 fine sand)	782	sqm	788.93	616946
		TOTAL				5166871
		Sub - Head - III , RCC Work				
13	RA	Providing TMT Bar FE 500D reinforcement for RCC work including bending, binding with G.I Binding wire and placing in position complete at all heights, all lifts and all levels as shown in the drawing	2032063	kg	81.25	165105150
14	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Footing/Raft /grade slab upto plinth level.	4145	cum	4693.71	19455411



15	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for plinth beam / beam upto Plinth level	319	cum	6907.33	2206760
16	RA	Providing and laying in position machine batched and machine mixed design mix M-400grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts upto Plinth level	131	cum	7461.94	978074
17	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Wall / shear wall upto Plinth level	1082	cum	6537.34	7071570
18	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Ground Floor	375	cum	6907.33	2590433



19	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at First Floor	303	cum	6941.87	2103565
20	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Second Floor	279	cum	6976.58	1945965
21	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Third Floor	278	cum	7011.46	1945756



22	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Fourth Floor	103	cum	7046.52	726867
23	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) , finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410kg) for Lintels/beams/Cantilevers Girders Bressumers at Fifth Floor	83	cum	7081.75	585553
24	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Sixth Floor	83	cum	7117.16	588481



25	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at seventh Floor	83	cum	7152.75	591423
26	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg) for Lintels/beams/Cantilevers Girders Bressumers at Eighth Floor	83	cum	7188.51	594380
27	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Ninth Floor	83	cum	7224.45	597352



28	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Tenth Floor	83	cum	7260.57	600339
29	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering(height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Eleventh Floor	83	cum	7296.88	603341
30	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering(height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Twelveth Floor	83	cum	7333.36	606357



31	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering(height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Thirteenth Floor	83	cum	7370.03	609389
32	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Fourteenth Floor	83	cum	7406.88	612436
33	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering(height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Lintels/beams/Cantilevers Girders Bressumers at Terrace level	28	cum	7443.91	206613



34	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Ground Floor Level	146	cum	7461.94	1089848
35	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at First Floor Level	108	cum	7499.25	806781
36	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Second Floor Level	99	cum	7536.75	743560



37	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Third Floor Level	95	cum	7574.43	718647
38	AR	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Fourth Floor Level	95	cum	7612.30	722240
39	RA	Providing and laying in position machine batched and machine mixed design mix M- 400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts at Fifth Floor Level	13	cum	7650.36	101214



40	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts at Sixth Floor Level	13	cum	7688.62	101720
41	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts at Seventh Floor Level	13	cum	7727.06	102229
42	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Eighth Floor Level	13	cum	7765.69	102740



43	AR	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts at Ninth Floor Level	13	cum	7804.52	103254
44	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Tenth Floor Level	13	cum	7843.54	103770
45	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Eleventh Floor Level	13	cum	7882.76	104289



46	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts at Twelfth Floor Level	13	cum	7922.18	104810
47	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440 kg) for Columns, pillars Post Struts at Thirteenth Floor Level	13	cum	7961.79	105334
48	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Fourteenth Floor Level	13	cum	8001.60	105861



49	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Columns, pillars Post Struts at Terrace Floor Level	0	cum	8041.60	0
50	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Ground Floor level	131	cum	6537.34	859516
51	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall First Floor level	187	cum	6570.03	1227898



52	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Second Floor level	187	cum	6602.88	1234038
53	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Third Floor level	181	cum	6635.89	1201985
54	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Fourth Floor level	241	cum	6669.07	1609260



55	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Fifth Floor level	119	cum	6702.41	795443
56	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Sixth Floor level	119	cum	6735.93	799420
57	AR	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Seventh Floor level	119	cum	6769.61	803417



58	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg)for Wall / shear wall Eighth Floor level	119	cum	6803.45	807434
59	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg)for Wall / shear wall Ninth Floor level	119	cum	6837.47	811471
60	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Tenth Floor level	119	cum	6871.66	815528



61	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Eleventh Floor level	119	cum	6906.02	819606
62	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Twelveth Floor level	119	cum	6940.55	823704
63	RA	Providing and laying in position machine batched and machine mixed design mix M-350 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 425 kg) for Wall / shear wall Thirteenth Floor level	119	cum	6975.25	827823



64	RA	Providing and laying in position machine batched and machine mixed design mix M-400 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 440kg) for Wall / shear wall Fourteenth Floor level	119	cum	7010.13	831962
65	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410kg) for Wall / shear wall Terrace Floor level	63	cum	7045.18	443001
66	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering(height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Ground Floor Level	637	cum	6335.17	4036545



67	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering(height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at First Floor Level	456	cum	6366.85	2900271
68	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Second Floor Level	387	cum	6398.68	2476239
69	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Third Floor Level	368	cum	6430.67	2368190



70	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Fourth Floor Level	212	cum	6462.83	1372673
71	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Fifth Floor Level	172	cum	6495.14	1115723
72	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Sixth Floor Level	172	cum	6527.62	1121302



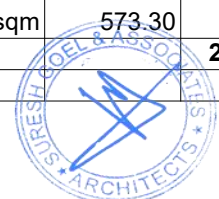
73	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Seventh Floor Level	172	cum	6560.25	1126908
74	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Eighth Floor Level	172	cum	6593.06	1132543
75	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Ninth Floor Level	172	cum	6626.02	1138206



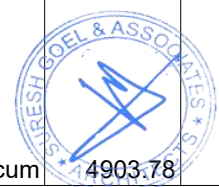
76	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Tenth Floor Level	172	cum	6659.15	1143897
77	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Eleventh Floor Level	172	cum	6692.45	1149616
78	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Twelveth Floor Level	172	cum	6725.91	1155364



79	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Thirteenth Floor Level	172	cum	6759.54	1161141
80	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Fourteenth Floor Level	172	cum	6793.34	1166947
81	RA	Providing and laying in position machine batched and machine mixed design mix M-300 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for any lead having continuous agitated mixer , manufactured as per mix design of specified grade for RCC work including pumping of RMC from transit mixer to site of laying including the cost of centering shuttering (height upto 4.2M) finishing and excluding reinforcement including cost of 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. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 410 kg) for Slab /Shelves/ landing balconies, access platform , staircase at Terrace Floor Level	46	cum	6827.30	317046
82	RA	Extra for Additional height of propping and centering where the height of propping and centering exceeds 4.2 m between supporting floor to ceiling upto 8.4 M.	25	sqm	573.30	14333
		TOTAL				255049962
		Sub- Head IV - Brick Work				



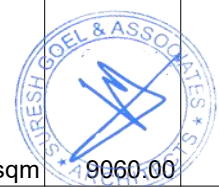
83	06002BA	Brick work using common burnt clay building bricks having minimum crushing strength not less than 35 kg/ sq cm in foundation and plinth in cement mortar 1 : 6 (1 cement : 6 fine sand)	60	cum	3980.99	238859
84	6014	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification . Ground Floor	238	cum	4483.72	1066354
85	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 1st Floor	443	cum	4528.56	2004405
86	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 2nd Floor	393	cum	4573.84	1796201
87	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 3rd Floor	371	cum	4619.58	1714257
88	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 4th Floor	301	cum	4665.78	1405448
89	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 5th Floor	282	cum	4712.43	1328411
90	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 6th Floor	282	cum	4759.56	1341695
91	AR	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 7th Floor	282	cum	4807.15	1355112
92	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 8th Floor	282	cum	4855.23	1368663
93	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 9th Floor	274	cum	4903.78	1345586



94	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 10th Floor	274	cum	4952.82	1359042
95	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 11th Floor	274	cum	5002.34	1372633
96	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 12th Floor	274	cum	5052.37	1386359
97	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 13th Floor	274	cum	5102.89	1400222
98	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. 14th Floor	274	cum	5153.92	1414225
99	RA	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm for super structure above plinth level laid with approved block laying polymer modified adhesive mortar all complete as per direction of engineer in charge and Technical Specification. Terrace	51	cum	5205.46	266520
100	RA	Providing and fixing chicken wire mesh of gauge 0.18mm and 200 mm wide with necessary screws and nail at joints cracks of brick work R.C.C work as per drawing and specification and direction of Engineer incharge.	646	sqm	217.15	140279
		TOTAL				22304271
		Sub Head - V Marble/stone Work				
101	RA	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) Granite of any colour and shade as per selection of client for wall lining (vener work), /bands 200mm wide backing filled with a grout of average 12 mm thick in polymer modified adhesive mortar including secured to the backing by means of cramps, hold fastners ,copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in adhesive mortar including making the necessary chases complete in all respect.	2423	sqm	5500.00	13325532



102	MR /DSR 8.2	Providing and fixing 18mm thick gang saw cut mirror polished pre moulded and pre polished) machine cut Granite of any colour and shade as per selection of client for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish, providing opening of required size & shape for wash basin/sink etc. complete at all levels.	479	sqm	3100.00	1484900
		TOTAL				14810432
		Sub- Head - VI Wood Work & PVC Work				
103	MR	Flush Door (Laminated) Providing and fixing of 35mm solid cored flush door with 1mm thick laminate in approved shade as per selection on both side as shown in the drg. All exposed edges covered with wooden liping of min 4mm th duly painted and finished matching shade of laminate. Rate shall Include Frame of WPC 125x65mm size comprising of virgin PVC polymer of K value 58- 60 (Suspension Grade), , SS Handle, Lock , Door Stopper, Door Closer, S.S. heavy duty hinges etc. all materials and labour etc. complete as per detail drawing and instruction of engineer-in charge and consultant.	1561	sqm	6000.00	9366000
104	MR	Flush Door (Laminated) Providing and fixing of 35mm solid cored flush door with 1mm thick laminate in approved shade as per selection on both side as shown in the drg. All exposed edges covered with wooden liping of min 4mm th duly painted and finished matching shade of laminate. Rate shall Include Frame of CP teak wood 127x65mm size , SS Handle, Lock , Door Stopper, Door Closer, S.S. heavy duty hinges etc. all materials and labour etc. complete as per detail drawing and instruction of engineer-in charge and consultant.	816	sqm	5500.00	4488000
105	10025AA	Providing and fixing M.S. grill of required pattern of windows etc. with M.S.. flats at required spacing and frame around square or round headed bolts and nuts or by screws.including applying a priming coat of red lead paint and two coats of oil painting etc complete (A) Plain grill	52035	kg	100.17	5212346
106	NS	Restroom Cubical: providing and installing ZMS SS Series Restroom Cubicles with all necessary tools hardware, labour, as per the company specs.Providing & Fixing BESCO Cubicle partition system for toilet by using following Materials 12mm thick compact laminate with core of phenol resin treat papers with black color top layer treated with special melamine resin. Adjustable legs with bottom cap of SS 316, door lock with, gravity hinges with cover – combination of mild steel and Nylon PA6And used following Accessories Accessories Include: 1. AlumuniumTop Rail (Stainless Steel Grade 304 with Satin Finish)2. SS Coat Hook with Door Stopper Option (Stainless Steel Grade 304 with Satin Finish)3. SS Gravity Hinges (Stainless Steel Grade 304 with Satin Finish)4. SS Latch cum Occupancy Indicator (Stainless Steel Grade 304 with Satin Finish)5. SS “U” Channel (Stainless Steel Grade 304 with Satin Finish)6. SS “F” Channel (Stainless Steel Grade 304 with Satin Finish)7. SS Palm Design Adjustable Foot (Stainless Steel Grade 304 with Satin Finish)8. SS Screws & Inserts(Stainless Steel Grade 304 with Satin Finish) 9.Rubber Lining for Door Stopper Brand.	160	sqm	9060.00	1449600



107	NS	Providing and fixing Hollow metal fire rated doors shutter with frame and hardware fittings etc complete as per specifications. Door frame shall be double rebate profile of minimum size 154mm X 77 mm made out of 1.60mm minimum thick galvanized steel sheet. The frames should be finished with Thermosetting Powder Coating in desired RAL Shade. All provision should be mortised, drilled and tapped for receiving appropriate hardware. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Door leaf shall be minimum 49mm thick fully flush double skin door with or without vision lite. All doors NSD 12049 shall be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf.	297	sqm	10474.00	3110778
108		Providing and fixing of 6mm thick decorative compact HPL laminate as per EN 438-6 Type EDS (Exterior Durable Standard)/ EGS(External General Standard) external wall cladding using specially treated acrylic resins under high pressure and temperature and hardened into sheets, thus providing all weather protection and UV resistance on an aluminium powder coated sub structure of aluminium cube channel having thickness 50x25x1.6mm at corner and 75x25x1.6mm at junction of two panels complete as per manufacturers specifications and direction of engineer in charge.	706	sqm	4500.00	3177000
		TOTAL				26803724
		Sub- Head - VII , Steel Work				
109	11002AA	Providing, supplying, fixing, fabricating, erecting, aligning the structural steel like pivot ,tubular 'T','I' section, angle, plate ,beam, channel section, Bar , hollow box or Z purlins , for built up purlins, roof trusses, columns, side runners, tie beams, sag rods, base plates gusset plates, cap plates, bearing bracing, gantry girders, rails, require support, pipes, including all welded or bolted steel structures of various types with approved I.S.I.mark electrodes, bolts, anchor bolts including cost of thread, Anchor plate cleats etc. in RCC or masonry work, including cutting, bending, welding ,fixing, supplying , Fabricating Decorative festicated section or any structured member required to complete the job for Trusses, Canopy, doors, Frame, Railing, Entrance gate, pergola, Decorative hanging light , for Electrical, water supply and HVAC structure New window, parking shed or space frame or any other required specified area as shown on drawing and detailed specification or as per design incl. three coats of approved brand primer and two coats of paints, necessary scaffolding, tools tolerance etc. complete as directed by Engineer In Charge. (Payment will be made for weight of metal used in the work) (Work for all the floors/all heights)	41645	kg	83.33	3470278



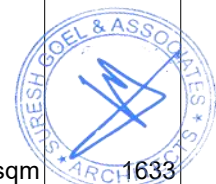
110	NS	Design, manufacture and installation of 12 mm dpi system, a complete assembly of extruded Multi / Micro cellular profile UV extruded/protected polycarbonate panels incorporated into a complete system. The Polycarbonate panel system consists coextruded UV protected Multi / Micro cellular structure polycarbonate panel with width of 1040 mm to ensure best performance for wind uplift, vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam with standing seam height of 10 - 15mm at both sides of the panel. Panels shall be fixed on Purlins with the Z - Type Stainless Steel Fastener/retention clips and connectors. Each fastener shall be min 1mm thick of SS 304 Grade and secured to supporting frame/structure with min 3 numbers of self-drilling screws so that the Pull Out Load of Fastener exceeds 7000 N (7 KN) when tested as per ISO 6892: 1998 and IS 1608: 2005. Snap-on connectors to interlock the panels shall have 2 - 4 teeth grip - lock locking mechanism to ensure maximum uplift capability. Panel shall be fixed with additional End cap/Aluminum U / F Profile / Glazing Bar (mill finish) for ends as required. Panel shall be fixed over structural steel / MS purlin (paid separately) by trained & factory authorised installer under direct supervision to complete entire project installation according to the detail technical specifications as per approved architectural drawings.	630	sqm	2255.00	1420650
111	DSR 10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.	31109	kg	654.58	20363460
		TOTAL				25254388
		Sub- Head - VIII Flooring				
112	14012AA	Providing and laying mirror polished Kota stone slab flooring over 20mm (Average) thick base of cement mortar 1:6 (1-cement:6-coarse sand) laid over and jointed with grey cement slurry mixed with pigment to match the shade of slab including rubbing and mirror polishing etc. complete. (A) 25mm thick (work for all the floors)	1991	sqm	982.83	1957060
113	14013A	Providing and laying mirror polished kota stone slab 25mm thick in risers of steps, skirting Dado and pillars laid on 10mm thick cement mortar 1:3 (1-Cement :3 coarses and) and jointed with gray cement slurry mixed with pigment to match the shade of slab including rubbing and mirror polishing etc. complete. (work for all the floors)	130	sqm	1176.03	152884



114	RA	Providing & laying Light & Dark Colored Polished Granite slab (16-18mm thick) flooring For Staircase Tread, Landing over 20 mm (average) thick base of Cement Mortar (1-Cement : 6-Sand) using cementitious Adhesive Materials as per EIC instruction. Granite slab shall be laid and jointed with grey cement slurry. The size of granite should be in full length of Riser and Tread as per design. Rates are including rubbing, polishing Moulding / Rounding of edges, making two lines of Grooves on each tread for antislip, laying and removing of floor protection sheet etc. complete. (work for all the floor Staircase	4705	sqm	2603.00	12247115
115	RA	Providing & laying Granite slab (16-18mm thick - river wash) in riser of steps, Skirting and pillars laid 15 mm thick Cement Mortar 1:3 (1Cement:3 Coarse Sand) using cementitious Adhesive Materials as per EIC instruction. Granite slab shall be jointed with the Grey Cement Slurry Rates are including rubbing, polishing Moulding / Rounding of edges, laying and removing of floor protection sheet etc. complete. (work for all the floors)	763	sqm	2603.00	1986089
116	RA	Providing and laying Glazed Vitrified tiles Matt/Antiskid finish of size 600mmx600mm in floor / skirting (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.	9255	sqm	1421.23	13153484
117	RA	Providing and laying Glazed Vitrified tiles Matt/Antiskid finish of size 800mmx800mm in floor / skirting (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.	1703	sqm	1587	2702661
118	14008AA	Providing and laying Ceramic tiles 6mm thick in flooring treads of steps and landing laid on a bed of 12mm thick cement mortar 1:3 (1- cement : 3-coarse sand) finishing with flush pointing in white cement.	2470	sqm	908.17	2243180
119	14009AA	Providing and laying Ceramic tiles 6mm thick in skirting risers of steps and landing on 10mm thick cement plaster 1:3 (1-cement : 3- coarse sand) and jointed with white cement slurry	8832	sqm	1063.27	9390801
120	RA	Providing and laying under floor screeding Cement mortar 1:4 (1cement : 4 coarse sand)	603	cum	5027.00	3031281



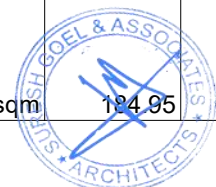
121	RA	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid in panels and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in charge.Cement content considered in this item is @ 380 kg/cum.	638	cum	8325.00	5311350
122	NS	Providing & laying of ITF Certified Acrylic Synthetic sports surfaces including 7MM SBR with single component PU binder, manually laying on the existing concrete surface, sealer of PU material for sealing of vide in SBR layer, 2 layers of top coat ITF classified Techno Court, White Line marking	2882	sqm	2227	6419136
123	NS	Supply and installation fixed poles & net for Basket Ball Court of approved quality Sundek Sports System or equivalent	1	per court	130000	130000
124	RA	Providing and fixing Glass mosaic tiles on finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, 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 sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-Charge:	14	sqm	3298	46172
125	RA	Cutting holes in RCC wall , slab by diamond core cutting machine upto 150mm dia for passing drain pipes etc and repairing the hole after insertion of drain pipe etc with GP2 grout.	735	each	383	281505
TOTAL						59052718
Sub- Head - IX Roofing						
126	16006	Providing and fixing eco-friendly light weight calcium silicate false ceiling tiles having Tegular edge & 15 mm Thick Densified edges on the Tile Periphery for Extra Strength The Light weight calcium silicate ceiling tiles shall have , light reflection 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermalconductivity0.043 ° w/m KC.for the best thermal Insulation . The Light weight calcium Silicate tile shall be of approved texture Fine fissured/ Spintone /Cosmos having NRC value of 0.5 & Globe having NRC value of 0.75 NRC or equivalent of size 595 X 595 mm to be laid on true horizontal level suspended inter locking metal grid of hot dipped galvanized steelsections (galvanizing @120 grams per sqm including both side) consisting of main 'T'runner suitably spaced at joints to get required length and size of 24X38mm made from 0.30 mm thick (minimum) sheet, 1200mm centre to centre, and cross ' T ' of size 24X28mm made out of 0.33mm (Minimum) sheet spaced 1200mm along space etc. An additional 4mm thick PVC strip of 40mm width is to be stuck on the interior side of the C channel using PVC solvent adhesive complete as per direction of Engineer in charge,manufactures.s at the back side so that ' L ' shape outer PVC beading can be removed whenrequired for replacement of broken glass etc. complete as per direction of etc. complete as per direction of Engineer in charge and manufacture ' s specification.icationntre with 25mm long dry wall screws @ 230mm interval and laying 15mm thick Densified edges light weight calcium silicate ceiling tiles of approved texture (Fine Fissured /Cosmos /Spintone) in the grid including, cutting /making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required, Main ' T ' runners to be suspended from ceiling using G.I. slotted cleats of size 25X35X1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanized steel level clips of size 85X30X0.8mm, spaced at 1200mm centre to centre long main 'T'bottom exposed with 24mm of all T-sections shall be pre-painted with polyester baked paint, for all heights, as per specifications, drawings and as directed by engineer-in charge.Note:- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tiles shall have NRC. Value of 0.50 (Minimum) for Fine fissured/Spintone/Cosmos and 0.75 NRC for Globe, light reflection 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance	992	sqm	1633	1619569



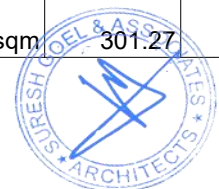
127	RA	<p>Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes, finishing with jointing compounds in three layers covering up to 150mm on both sides of joints and two coats of primer suitable for boards, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in charge but excluding the cost of painting with: 8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.</p>	1241	sqm	1516.48	1881952
128		<p>Providing & fixing Armstrong Vertical Linear Baffle Ceiling made out of Aluminum Extrusion in Aluminum alloy grade 6063. The baffle blade shall be in size of 100x 50mm in WHITE/BLACK/WOOD GRAIN finish – Pradoo & Cabrueava. The baffle blade shall be suspended using Slotted U-profile at on-center spacing . Longer lengths of Baffle to be connected by Baffle Joiner and the ends to be fixed with End caps. Baffle Ceiling 200mm c/c.</p>	1792	sqm	5085	9112320



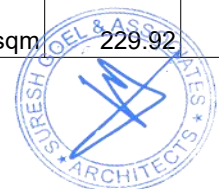
129		Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance ? 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 & 7) in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size 24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge. With 20 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.7)				
			686	sqm	2263.73	1552919
		TOTAL				14166760
		Sub- Head - X Finishing				
130	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Ground Floor	6672	sqm	152.15	1015205
131	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - First Floor	3006	sqm	159.76	480229
132	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Second Floor	2563	sqm	167.75	429910
133	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Third Floor	2438	sqm	176.14	429413
134	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 4th Floor	1325	sqm	124.95	245042



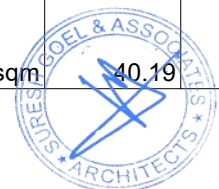
135	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 5th Floor	1128	sqm	194.20	219057
136	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 6th Floor	1128	sqm	203.91	230010
137	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 7th Floor	1128	sqm	214.11	241515
138	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 8th Floor	1128	sqm	224.82	253596
139	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 9th Floor	1128	sqm	236.06	266275
140	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 10th Floor	1128	sqm	247.86	279585
141	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 11th Floor	1128	sqm	260.25	293561
142	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 12th Floor	1128	sqm	273.26	308236
143	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 13th Floor	1128	sqm	286.92	323645
144	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 14th Floor	1128	sqm	301.27	339832



145	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete Ceiling for interior plastering finished even and smooth in(i) Cement mortar 1:3 (1-cement :3- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Terrace Floor	243	sqm	316.33	76843
146	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Ground Floor	6854	sqm	155.61	1066495
147	RA	Providing 10 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - First Floor	2965	sqm	163.39	484420
148	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Second Floor	2603	sqm	171.56	446501
149	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 3rd Floor	2392	sqm	180.14	430875
150	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 4th Floor	2060	sqm	189.15	389615
151	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 5th Floor	2015	sqm	198.61	400280
152	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 6th Floor	1735	sqm	208.54	361834
153	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 7th Floor	1735	sqm	218.97	379930
154	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 8th Floor	1735	sqm	229.92	398930



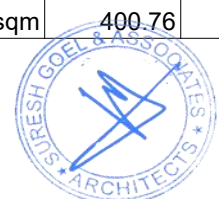
155	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 9th Floor	1735	sqm	241.42	418883
156	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 10th Floor	1735	sqm	253.49	439825
157	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 11th Floor	1735	sqm	266.16	461809
158	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 12th Floor	1735	sqm	279.47	484903
159	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 13th Floor	1735	sqm	293.44	509142
160	RA	Providing 15 mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - 14th Floor	1735	sqm	308.11	534595
161	RA	Providing 15mm thick Cement Plaster in single coat on brick/concrete wall/ for interior plastering finished even and smooth in(i) Cement mortar 1:4 (1-cement :4- sand) as required to receive specified architectural finish (like Grooves, pattern if any, drip mould etc.) to correct line, plumb .etc - Terrace Floor	256	sqm	323.52	82821
162	17009	20mm thick Double coat Sand Faced / Mala cement plaster on Exterior walls at for various floors, levels and height as below and shown in the drawing consisting of 12mm thick backing coat of C.M. 1:3 (1-cement :3-sand) and 8mm thick finishing coat of C.M. 1:2 (1 - cement :2 - sand) etc. complete. as required to receive specified architectural finish like Vata, Grooves, pattern if any, drip mould etc. to correct line, level and plumb .	10467	sqm	297.68	3115948
163	RA	Providing 20mm thick cement plaster in single coat on single wall for basement wall/ under plinth exterior surface in cement mortar 1:3 (1cement: 3sand) including providing and mixing water proofing material in cement mortar work in doses by weight of cement as per manufacturer specifications	874	sqm	181.24	158386
164	19032	Applying two coats of putty & two coats of primer of approved brand and manufacture on new wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smooth.	53268	sqm	40.19	2140850



165	18031	Wall painting (Three coats) with plastic emulsion paint of approved brand & manufacture on under coated wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smooth.	53268	sqm	78.44	4178359
166	19005	Painting two coats (excluding priming coat) on new steel and other metal surface with synthetic enamel paint, brushing to give an even shade including cleaning the surface of all dirt, dust and other foreign matter.	4401	sqm	65	284569
167	RA	Finishing walls with textured exterior paint of required shade :New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm.	10003	sqm	189.49	1895468
TOTAL						24496392
Sub- Head - XI , Aluminium Work						
168	RA	Providing and fixing of Anodised Aluminium (Matt finish) frame work as per IS 1868 (1996)(Horizontal and verticals , Styles and rails, ball bearing) for Doors/ window/ventilation/alluminium partition with required Domal sections including fixing all items and hinged / pivoted arrangements for operation of shutters and labour cost for fixing of door fittings and locks including all items and contingencies described above complete (Aluminium beadings and glazing clips & section measured under this item only) NOTE : All fitting works shall be carried out as per I.S. specifications including cost of necessary rivets, screws, lugs, scaffolding, rubber gaskets etc., complete all generally as per drawings. The sizes of the components should confirm as per details in drawings. Providing and fixing at all heights / in all floors with all leads. Colour Anodised Aluminium doors / windows / partitions manufactured from best extruded Aluminium sections confirming to ISI cut to length, joints mitred and corners grinded with joints water proof the outer frame and shutter frame stiffened with corner angle and strips provided for in the frame for fixing the frame to R.C.C Columns / masonry/Granite Frame on sides, R.C.C lintels/Granite Frame on top and P.C.C sills or floor at bottom, the frame work fixed with standard approved fastenings all generally as per details shown in drawings and specification with all the sections pretreated for removal of any rust & scales and prevention of further rust/scale formation and coated with greasy materials for non-adherence of mortar or any other sticky materials and this coat to be removed after installations 1)Sheet metal screws, wool pile and aluminium angle corner cleat of required thickness and of full width, etc. for assembling the frame and shutter; 2)Glazing clips for receiving infill panel for Double Glazed Unit (DGU), any type of Glass, Compact Sheet, Louvers; 3) Best quality wool pile where ever shutter touches the frame; 4) Anchor fasteners for fixing the frame assembly to the RCC or Granite or masonry surfaces etc. complete. Note:-As per drawings and design supplied by architect and instruction given by authority and E.L.C	30368	kg	419.53	12740480
169	RA	Providing and fixing Clear Float Glass of any size, any shape and specified thickness and SHGC value 86 % in frame and shutter work with necessary cutting of glass as per drawing & specifications including providing and fixing EPDM quality rubber/silicon sealant/structural sealant of 3M tape on the periphery of the glass as per the required thickness etc. complete a tall floors/all levels/all heights as per the directions of Architect. Actual installed quantity shall be measured and paid. Rate shall be inclusive of all type of wastage. (a) 6 mm thick	3057	sqm	1275.64	3899563



170	RA	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete with Aluminium beading	1518	sqm	1040.68	1579811
171	NS	Supply of Aluminium Ventilated Façade / Louver System of approved colour consisting of panel 50 mm wide x 50mm depth x 0.6mm thick panel length up to 5mtrs coil coated on a continuous paint line double baked and roll formed from enameled corrosion Resistance Aluminum Alloy AA3005 / AA5050 for higher strength and good Roll forming characteristics. Panels shall be mounted in a module of 100 mm on a mullion profile grooved (Slotted Fastening Profile) by means of Clamp, Locking Pop and Pop Rivet (Gap will be 50 mm between two panels). Slotted Fastening Profile shall be fixed at 150 mm from panel ends and at a distance of maximum 1200 mm center to center across the panel span and Slotted Fastening Profile shall be fixed to a suitable sub-structure by means of Square Brackets. Paint Finish: Panel shall be stove enamelled and finished with Luxacote, a patented special three layered coating system (consisting of first a conversion layer of thickness 800-2000mg/sq mtr, a polyurethane basecoat of 16-20 microns, and a special top coat of polyamide particles of 8-12 microns thick to provide excellent abrasion and damage resistance) in a continuous coil coating process of the approved colour on the exposed side and the reverse side with epoxy.	2547	sqm	5063.00	12895461
172		Designing, fabricating, testing, protection, installing and fixing in position semi(grid) unitized system of structural glazing with IGUs comprising of hermetically sealed 6-12-6 mm insulated glass (double Glazed) and Aluminium section complete as per specification	2434	sqm	8584.15	20893821
TOTAL						52009136
Sub- Head - XII , Water Proofing						
173	RA	Providing and applying integral crystalline slurry of hydrophilic innature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years by Specialized agency against any leakage. For vertical surface two coats @ 0.70 kg per sqm	1322	sqm	400.76	529765



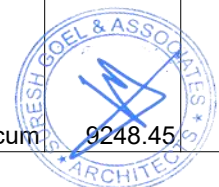
174	RA	<p>Providing and applying integral crystalline slurry of hydrophilic innature for waterproofing treatment to the RCC structures like retainingwalls of the basement, water tanks, roof slabs, podiums, reservior,sewage & water treatment plant, tunnels / subway and bridge decketc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm.The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.</p> <p>For horizontal surface one coat @1.10 kg per sqm.</p>	2868	sqm	307.46	881642
175	22.3	<p>Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C kitchen and the like consisting of : i) Ist course of apying cement slurry @ 4.4 Kg/sqm mixed with water proofing compound conforming to IS 2645in recommended proportions including rounding off junction of vertical and horizontal surface.ii) IInd course of 20 mm cement plaster 1: 3 (1 cement :3 coarse sand) mixed with water proofing compound in recommended proportion including roudnign off junction of vertical and horizontal surface. iii) IIIrd course of applying blown or residual bitument applied hot at 1.7 kg. per sqm of area.iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitument @ 1.7 kg/sqm.)</p>	2783	sqm	652.20	1815073



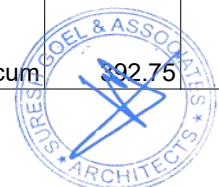
176	RA	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. (b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. (c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. (d) fourth and final layer of Crazy ceramic tile flooring, with under layer 12 mm thick cement mortar 1:4 (1 cement: 4 coarse sand), with joints not exceeding 5 mm, including filling the gaps with ordinary cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm , mixing fibre @ 125 grams per 50 kg of cement in cement mortar,including providing and mixing water proofing material in mortar @ 1 kgper 50 kg of cement, all complete as per direction of Engineer-in-charge. (10 year Warranty to be given by Specialized agency for any defects)	2288	sqm	1392.42	3185857
177	NS	Terrace Waterproofing Works : Providing and applying single component PU based cold applied seamless waterproofing membrane over the primed surface with PU/Epoxy primer Layer on RCC mother slab, Insulation Layer: Spray applying an average minimum 65mm thick GRIHA enlisted CFC & HCFC free spray applied polyurethane foam and 2 coats of a single component PU based cold applied seamless waterproofing membrane over PU foam , 150 gsm Geotextile (non-woven polyester) over the entire membrane on horizontal areas maintaining proper overlaps and an avg of 100 mm thick M20 grade PP fiber reinforced concrete screed with Min. 75 mm thick at the rain water outlets, laid to a slope of 1 : 120, including saw cutting (approx 6mm W x 30mm D) at 3MX4M pannels within 24 hours of concrete placement and filling the groove with Expanded Polythelylene backer rod keeping the top approx 10 mm depth open and sealing the groove on the top after 28 days of concrete placement with PU sealant or equivalent, and making angle fillet of 100mmX100mm using M20 grade concrete at the corners, compaction , curing for 7 days etc complete	2019	Sqm	2868.00	5790492



		TOTAL				12202829
		Sub Head XIII - External development				
178	RA	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavation earth to an average of 22.5cm depth dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth lead upto any lead.	14980	sqm	185.51	2778940
179	RA	Construction of granular Sub base providing coarse graded material, spreading in uniform layers with motor grader on prepared surface mixing by mix in place method with front end loader at OMC and compacting with vibratory roller to achieve the desired density, complete as per specification and direction of engineer in charge- With material conforming to Grade - I (size range 75mm to 0.075mm) having CBR Value -30.	2247	cum	2359.32	5301392
180	RA	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer in- charge.	2247	cum	3515.81	7900025
181	14033	Providing and fixing pre-cast Rubber Dye/ steel Dye interlocking concrete block 60mm thick with grade of concrete M300 pneumatic compressed/ vibrated mechanically and as per approved design Confirming to IS15658:2006 including 35mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidlines of IRC : SP 63-2018 etc. Complete.	9558	sqm	680.07	6500109
182	14023A	Providing and ixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length,30cm height and 15cm thick of M200 grade concret as per approved design and including excavation for fixing in proper line and level ,filling the joint with C:M 1:3(1cement:3 fine sand) etc complete.	162	metre	374.85	60726
183	RA	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required,laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction / expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Cement content considered in M-30 is @ 410 kg/cum. Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	2903	cum	9248.45	26848250



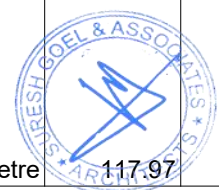
184	26096A	Parking Signs :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 60 x 60cms. sequare plus 60 x 20cms rectangular additional plate as as per the design of IRC-67-1977 pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint;reflectorised with retro reflective sheeting as per latest M.O.S.T.Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm 75x75x6mm as required;painted with best quality epoxy coatings in black and white bends.the details of symbol for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60cms. for each leg. including excavation curing etc.complete under the supervision of engineer in charge.(A) Engineer Grade(VR)	4	each	3795.75	15183
185	26090	Providing and fixing retro Reflective Engineering grade Board using C.R.C. (M.S.) Sheet 2mm, angle iron 75 x 75 x 6mm. Descaling and degreasing the board as per requirement using epoxyprimer epoxy paint and carrying retro reflective process by screen painting as directed etc. complete including transporting and fixing in C.C. 1:4:8 with necessary excavation curing etc. complete as per I.R.C type design.(A) Engineer Grade	6	each	8646.75	51881
186	26093C	Facility Informatory Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 80 x 60 cms rectangular as per design of IRC-67-2012.Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	6	each	5848.00	35088
187	RA	Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc.complete. New work (Two or more coats)	390	sqm	159.49	62201
188	26004EA	Earthwork for embankment including breaking clods,dressing with all lead and lift and including watering rolling and consolidation of subgrade in layers at O.M.C.to required dry density including filling the depression which occur during the process using power roller 8Tto10T. (E) From Borrow area within all lead.	61950	cum	392.75	24330863



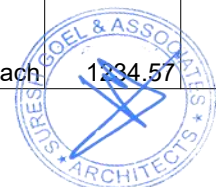
189	RA	Supplying and stacking at site dump manure from approved source, including carriage (manure measured in stacks will be reduced by 8% for payment) : Screened through sieve of I.S. designation 20mm	431	cum	226.92	97803
190	RA	Fine dressing of the ground	11500	sqm	3.00	34500
191	RA	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Engineer -in-charge (Cost of sludge, dump manure and / or good earth to be paid separately).	3881	cum	47.00	182407
192	RA	Mixing earth and sludge or manure in the required proportion specified or directed by the Engineer -in-charge.	3881	cum	33.00	128073
193	RA	Grassing with selection No.1 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 including supplying good earth, if needed -With grass Turf	11500	sqm	12.00	138000
194	RA	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing withsludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc.including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately).	500	cum	199.00	99500
195	RA	Supplying & Stacking of Selection No.1 doob grass turf at site fresh & free from weeds having proper roots in green including loading, unloading, carriage and all taxes paid etc.and as per direction of Engineer - in -charge.	11500	sqm	45.00	517500
TOTAL						75082441



Sub Head XIV Plumbing work						
196	23055	Providing & fixing concealed centre point to wall ceiling & floor CPVC SDR - 13.5 PIPE having National Sanitation Foundation (NSF) seal for potable water of 15 mm dia nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc complete.15 mm dia	3010	metre	165.21	497282
197	23056	Providing & fixing concealed centre point to wall ceiling & floor CPVC SDR - 13.5 PIPE having National Sanitation Foundation (NSF) seal for potable water of 25 mm dia nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc complete.20mm dia	810	metre	202.97	164406
198	23057	Providing & fixing concealed centre point to wall ceiling & floor CPVC SDR - 13.5 PIPE having National Sanitation Foundation (NSF) seal for potable water of 25 mm dia nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc complete.25mm dia	785	metre	247.25	194091
199	23058	Providing and fixing concealed C-PVC pipe SDR - 13.5 ISI mark of approved make and specials,clamps, Tube fitting with all required fittings such as reducing coupler, Union, bend plug, end cap, pipe clip, tee, hex nipple, elbow, coupler etc. complete with using bonding material including cutting and making good the walls and ceiling with necessary fittings, connections etc complete and as directed by the Engineer-in-Charge. 32 mm dia	1705	metre	330.36	563264
200	23059	Providing and fixing concealed C-PVC pipe SDR - 13.5 ISI mark of approved make and specials, clamps, Tube fitting with all required fittings such as reducing coupler, Union, bend plug, end cap, pipe clip, tee, hex nipple, elbow, coupler etc. complete with using bonding material including cutting and making good the walls and ceiling with necessary fittings, connections etc complete and as directed by the Engineer-in-Charge. 40 mm dia	705	metre	437.66	308550
201	23060	Providing and fixing concealed C-PVC pipe SDR - 13.5 ISI mark of approved make and specials, clamps, Tube fitting with all required fittings such as reducing coupler, Union, bend plug, end cap, pipe clip, tee, hex nipple, elbow, coupler etc. complete with using bonding material including cutting and making good the walls and ceiling with necessary fittings, connections etc complete and as directed by the Engineer-in-Charge. 50 mm dia	465	metre	647.30	300995
202	NS	Providing and fixing concealed C-PVC pipe SDR - 13.5 ISI mark of approved make and specials,clamps, Tube fitting with all required fittings such as reducing coupler, Union, bend plug, end cap, pipe clip, tee, hex nipple, elbow, coupler etc.complete with using bonding material including cutting and making good the walls and ceiling with necessary fittings, connections etc complete and as directed by the Engineer-in-Charge. 63 mm dia	440	metre	710.00	312400
203	NS	Providing and fixing concealed C-PVC pipe SDR - 13.5 ISI mark of approved make and specials,clamps, Tube fitting with all required fittings such as reducing coupler, Union, bend plug, end cap, pipe clip, tee, hex nipple, elbow, coupler etc.complete with using bonding material including cutting and making good the walls and ceiling with necessary fittings, connections etc complete and as directed by the Engineer-in-Charge. 80 mm dia	195	metre	791.00	154245
204	23063	Providing laying and jointing in true line and level 32mm dia.U.P.V.C.Pipe (SCH-40) for cold water including fittings as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	600	metre	117.97	70782



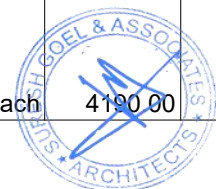
205	23065	Providing laying and jointing in true line and level 50mm dia.U.P.V.C.Pipe (SCH-40) for cold water including fittings as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	518	metre	193.73	100352
206	23066	Providing, laying and jointing in true line and level 160 diametre U.P.V.C (TypeB) conforming to IS13592-1992 with one end plain and othe rend socketed with rubberring, & fittings conforming to ISI14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diametre x149mm length x145mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc.including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	2304	metre	822.99	1896169
207	AR	Providing, laying and jointing in true line and level 110 diametre U.P.V.C (TypeB) conforming to IS13592-1992 with one end plain and othe rend socketed with rubberring, & fittings conforming to ISI14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diametre x149mm length x145mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc.including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	4262	metre	551.25	2349648
208	AR	Providing, laying and jointing in true line and level 75 diametre U.P.V.C (TypeB) conforming to IS13592-1992 with one end plain and othe rend socketed with rubberring, & fittings conforming to ISI14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 75 mm diametre x149mm length x145mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc.including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	1675	metre	439.00	735325
209	23068	Providing and fixing PVC SWR nahni trap IS 14735 FOR DRAIN-100 mm dia meter with jalli of the following nominal diameter of self cleaning design with C.I. screwed down of hinged grating incl. cost of cutting and making good the walls & floors	420	each	565.43	237481
210	23069	Providing and fixing PVC SWR nahni trap IS 14735 FOR DRAIN-75 mm dia meter with jalli of the following nominal diameter of self cleaning design with C.I. screwed down of hinged grating incl. cost of cutting and making good the walls & floors	840	each	552.83	464377
211	24006B	providing & fixing S.W gully trap with CI grating brick masnoary chamber & water tight CI cover with frame of 300 x 300mm size inside of standard weight with Squire mouth traps @ 150 x 100mm Size P or R type	14	each	1234.57	17284



212	24016AA	Construction of BRICK MASONRY CHAMBER for under Ground C.I. inspection chamber and bends with bricks having crushing strength not less than 35 Kg / Cm ² in Cement Mortar (1:5) C.I cover with frame (light duty) 455x610 mm internal dimension, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and wt of frame 15 kg) R.C.C top slab with 1:2:4 mix (1 cement :2 coarse sand;4 graded stone aggregate 20 mm nominal size)with RCC top slab with CC (1:2:4) mix (1 cement : 2 coarse sand : 4 graded aggregate 20 mm nominal size) Foundation concrete 1:5:10, inside plaster 15 mm thick with C:M (1:3) finished smooth with a floating coat of neat cement slurry on walls & bedconcrete etc, complete. Inside dimension of chamber 455 mm x 610 mm x 450 mm deep for single pipe.	11	each	2903.89	31943
213	24017A	Extra over item above item for every additional depth of 0.1 meter or part thereof beyond 450mm depth for brick masonry chamber (I) for 455mmx610mm	11	each	239.99	2640
214	24002B	Providing and laying Cement concrete 1:5:10 (1-Cement :5 - Fine sand :10 -Graded stone aggregate 40 mm nominal size) bedding for stone ware pipes of following internal diameters with necessary form work and curing complete.(B) 150mm dia. (166mm Ave. bed thickness	270	metre	211.59	57129
215	24007BA	Providing laying (to level or slopes) and jointing reinforced concrete Light duty non- pressure pipes I.S.class NP2 of the following internal diameter with collars and butt ends prepared for collar joints including testing of joints complete. (B) 150mm	270	metre	246.21	66477
216	24007DA	Providing laying to level or slopes)and jointing reinforced concrete Light duty non-pressure pipes I.S.class NP2 of the following internal diameter with collars and butt ends prepared for collar joints including testing of joints complete.(D) 300mm	450	metre	658.89	296501
217	NS	Providing and fixing Wash Basin with C.I or M.S. bracket painted with including cutting holes and making good the same but including fitting (A) Vitreous china : (II) Flat back wash basin 550mm x 400mm size in white colour .		each	4018.00	0
218	NS	Providing and fixing Oval or round shape Counter Wash Basin with C.I or M.S. bracket painted with including cutting holes and making good the same but including fitting (A) Vitreous china : size and color selected by architect or as per detail.	365	each	4018.00	1466570
219	NS	Providing and fixing wash down water closet EUROPEAN TYPE W/C PAN with concealed flush tank with intergral "P" or "S" trap including jointing the trap with soil pipe in cement mortar (1:1) (1 cement;1 fine sand) vitreous china. Rate inclusive of providing and fixing seat cover of the same make.	347	each	8076.00	2802372
220	NS	Providing and fixing 15mm dia wall mounted basin tap (auto closing) code: PRS:061 jaquar make or equivalent . Including all related material etc. complete.	365	each	1920.00	700800
221	NS	Providing and fixing screw down bib tap of 15 mm dia 9a) Brass screw down bib tap polished bright jaquar make, florentine series, code: FLR 5047N or equivalent with all related material etc. complete	347	each	1388.00	481636
222	NS	Providing and fixing C.P. brass Angular cock of approved quality. (a) 15mm dia make jaquar florentine series, code: FLR - 5053N or equivalent with all related material etc. complete.	1721	each	1284.00	2209764



223	NS	Providing and fixing S. S. Bottle Tap with necessary concealed fitting and cover panels. All the damages incurred while fixing shall be repaired to the satisfaction of the engineer in - charge . S. S. Bottle Tap shall be as approved by engineer in - charge .make jaquar or equivelant	365	each	288.00	105120
224	NS	Providing and fixing Pillar Tap for Sink, capstan head, screw down high pressure with screws,shanks and back nuts (l) 15 mm dia jaquar make or equivelant with all related material etc. complete.	73	each	2411.00	176003
225	NS	Providing & Fixing magnifying mirror of approved make. Including providing & fixing screws, washers, cutting & making good the walls.size as per architecture detail.	164	sqm	848.00	139284
226	NS	Providing & fixing C.P. brass towel ring fixed to rawl plug with C.P. brass screws.	366	each	1002.00	366732
227	NS	Supply,Installing, testing and commisssioning C.P single lever concealed diverter for bath and shower complete with making good the walls & floor wherever required as per technical specifications, drawings and directed by the Project Manager.Single Lever Concealed Divertor ,Shower Head incl. shower arm,Bath spout 235 mm with wall flange	307	each	2500.00	767500
228	NS	Providing and fixing 15mm C.P brass hand held ablution fitting (health faucet) with one meter long flexible tube and wall hook, all complete of following make or equivalent (CAT No. ALD-585 of Jaguar) .	347	each	1017.00	352899
229	NS	Supply, instalation, testing & commissiioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) -15 mm dia		each	1129.00	0
230	NS	Supply, instalation, testing & commissiioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) -20mm dia.	556	each	1129.00	627724
231	NS	Supply, instalation, testing & commissiioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) - 25mm dia.	18	each	1402.00	25236
232	NS	Supply, instalation, testing & commissiioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) -32mm dia.	29	each	1671.00	48459
233	NS	Supply, instalation, testing & commissiioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) -40mm dia.	34	each	2701.00	91834
234	NS	Supply, instalation, testing & commissiioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) -50mm dia.	6	each	4190.00	25140



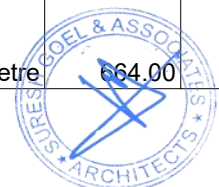
235	NS	Supply, instalation, testing & commissioning of gunmetal, male or female threaded isolation control valve (Ball Valve), confirming to IS 778, PN 1.0, with necessary specials, union, nipples etc., to complete the job. (Internal Toilet Control Valve+ Shaft Area) -63mm dia.	18	each	4643.00	83574
236	NS	Supply, instalation, testing & commissioning of butterfly valve with dual plat flanze joint , isolation control valve confirming to latest IS , PN 1.0, with necessary specials, bolt and nuts , EPDM gasket all etc., to complete the job.(External Vertical Shaft Riser Control + Ring Main Works) a. 50mm Dia	7	each	1871.00	13097
237	NS	Supplying, fitting & fixing Non return valve (Spring type Dual plate type) as per API 594/598 , tested to 10 kg/sq.cm etc. complete. 50mm dia		each	1808.00	0
238	NS	Supplying, fitting & fixing Non return valve (Spring type Dual plate type) as per API 594/598 , tested to 10 kg/sq.cm etc. complete. 75mm dia.		each	3304.00	0
239	NS	Constructing manhole with RCC top slab in 1:2:4 mix (1 cement:2 coarse and :4 graded stone aggregate 20 mm nominal size) foundation concrete 1:3:6 mix (1 cement :3 coarse sand : 6 brick bats 40 + 50 mm size) inside plastering 15mm th.with cement mortar 1:5 (1 cement :5 coarse sand) finished with a floating coast of neat cement and making channel in cement concrete 1:2:4 mix (1 cement: 2 Coarse sand :4stone aggregate 20mm nominal size) inside size 900 mm x1200 mm & 1.5 m deep incl C.I.cover with frme size 1)A -type depth 0.90 m for 150 mm, 250(required dia) sewer or Storm Water Drain	51	each	10920.76	556959
240	NS	Extra rate for constructing B.B masonry for every additional depth 0.10meter or part thereof for depth from 1.50 meter to 2.25 meter.	20	metre	3159.00	63180
241	NS	Supplying & erecting approved make motor control cubical panel (Direct - on - line) made from 16 G. CRCA sheet duly epoxy powder painted inside and outside with hinged doors and locking, arrangement consisting of suitable size of ON- OFF isolator (AC - 3/23duty) main fuses, single phasing preventer, indicating lamps for R- Y - B phases, overload relay, Automatic water level controller, Ammeter, Voltmeter each with two way selector switch incoming, wires duly socket crimped, main contactor & overload relay, start - stop push buttons, to be erected on angle iron frame grouted on wall as directed. The isolator, overload relay & contactors will be of L & T, Siemens or BCH make only. (b) DOL for 7.5 H.P.		each	11161.00	0
242	NS	Drilling 215mm dia bore in over burden strata including lowering and fixing of 175mm nominal dia UPVC Pipes up to required depth and further drilling of 165 mm dia bore hole in rocky strata by DTH Rig including fitting of bore plug.	150	metre	301.00	45150
243	NS	Providing / supplying of 175mm nominal dia Plain casing UPVC Pipe CS -Type at store of site of standard length with necessary couplers,cement solvant, joint alongwith required cement solvant including and tests shall be conforming to IS 12818 / 1992 with latestfreight/Insurance/Octroi / Taxes etc. complete detailed specifications amendment.	150	metre	587.00	88050



244	NS	Lowering of Submersible pumpset complete with required nos and size of Column pipe (GI / HDPE pipe) erected by means of proper chain pulley block & pipe wrenches after checking of threads of each pipe with coupling to take the load of the pumpset and pipe assembly filled up with water with trail testing,wiring GEB test report.	1	metre	3241.00	3241
245	NS	Supplying submersible pump set for bore of 150 mm. dia. Or more having 3 phase motor capacity not more than 12.5 H.P. and having (12 Stage) 390 to 350 L.P.M. discharge at the head about 95 to 107 mtrs. suitable for 50 mm dia. Delivery pipe Cat.II	1	each	42835.00	42835
246	NS	Flat PVC cable size 4.0 sq.mm	10	metre	80.00	800
247	NS	Supplying & Fixing 50 mm dia UPVC column pipe approved make with necessary fittings like long threaded couplings, bend, T, Elbow, etc. required as per directed	150	metre	414.00	62100
248	NS	Providing best quality of well sorted `sevalia` gravel of size 4 mm to 6 mm including loading, unloading, carting upto site of work stacking etc complete as directed.	5	cum	1869.00	9345
249	NS	Design, Construction ,Supplying, installing, testing & commissioning of Sewage Treatment Plant of 120 KLD based on MBR technology Complete as per specifications.	1	pkg	5227580.0	5227580
TOTAL						25404325
Sub Head : XV Fire Fighting System						
250	AR	Supply, installation, testing & commissioning of electric driven main fire pump suitable for automatic operation and consisting of following: complete in all respect as required. 1) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. 2) Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325. 3) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. 4) Suitable cement concrete foundation duly plastered with anti vibration pads. - 2280 lpm at 70 m Head	1	Set	329521.0	329521
251	AR	Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Diesel Driven Pump) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulatedwith 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.. - 2280 lpm at 70 m Head	1	each	546487.0	546487



252	AR	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump) ,Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520. Suitable HP squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325. - 180 lpm at 70 m Head	1	each	92236.0	92236
253	AR	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	1	Set	219402.0	219402
254	AR	Supplying and making end termination with brass compression gland & Al.lugs for following sizes of PVC insulated, PVC sheathed/XLPE Al.conductor cables of 1.1 KV grade as required - 3.5x95 sq.mm	2	each	525.00	1050
255	AR	Supplying and making end termination with brass compression gland & Al.lugs for following sizes of PVC insulated, PVC sheathed/XLPE Al.conductor cables of 1.1 KV grade as required - 3 core 50.sqmm	2	each	333.00	666
256	AR	Supplying and making end termination with brass compression gland & Al.lugs for following sizes of PVC insulated, PVC sheathed/XLPE Al.conductor cables of 1.1 KV grade as required - 3 core 16 sq.mm	2	each	241.00	482
257	AR	Earthing with GI Earth plate 600 mm x 600 mm x 6 mm th.including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe with charcoal or coke and salt complete as required.	2	Set	6332.00	12664
258	AR	Providing & fixing 25 mm x 5 mm G.I. Strip in 40 mm dia GI pipe from earth electrode including connections with GI nut, bolt, spring, washer excavation and re-filling etc. as required.	10	metre	598.00	5980
259	AR	Providing & fixing 25 mm x 5 mm G.I. Strip in on surface or in recess for connections etc as required.	50	metre	218.00	10900
260	AR	Providing and fixing 6 SWG dia G.I wire on surface or in recess for loop earthing along with existing conduit/cable as required.	20	metre	62.00	1240
261	AR	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required. -300 mm (W) x 50 mm (D) x 1.6 mm (T)	50	metre	694.00	34700
262	AR	Supplying, fixing, testing and commissioning of following size Y-Strainer of ductile CI body flanged ends with stainless steel strainer as specified. - 150 mm dia	1	each	9950.00	9950
263	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.- 25 mm dia	2586	metre	664.00	1717104



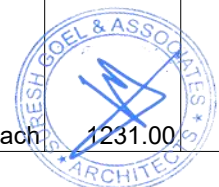
264	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.-32 mm dia	851	metre	760.00	646760
265	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.-40mm dia	573	metre	824.00	472152
266	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.-50mm dia	478	metre	1144.00	546832
267	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.-65mm dia	124	metre	1441.00	178684
268	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.- 80mm dia	229	metre	1683.00	385407
269	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.-100mm dia	626	metre	2281.00	1427906
270	AR	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., fixing the pipe on the wall/ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.-150mm dia	700	metre	3191.00	2233700
271	AR	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required -150 mm dia	218	metre	3396.00	740328



272	AR	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required -80 mm dia	50	metre	1851.00	92550
273	AR	Supplying and fixing single headed internal hydrant valve with instantaneous Gun metal couplings of 63mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type-A) with blank Gunmetal cap and chain as required - Single headed Gunmetal	66	Set	6827.00	450582
274	AR	Supplying, fixing, testing and commissioning of following size butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating as specified. -150 mm dia	5	each	8000.00	40000
275	AR	Supplying, fixing, testing and commissioning of following size butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating as specified. -100 mm dia	52	each	5953.00	309556
276	AR	Supplying, fixing, testing and commissioning of following size butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating as specified. -80 mm dia	9	each	4448.00	40032
277	AR	Supplying, fixing, testing and commissioning of following size butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating as specified. -50 mm dia	2	each	3379.00	6758
278	AR	Supplying, fixing, testing and commissioning of following size double flanged sluice valve of rating PN 16 with non rising spindle bronze/GM seat ISI marked complete without bolts washer gaskets and conf.to IS780 as required. -150 mm dia	1	each	20323.00	20323
279	AR	Supplying and fixing orifice plate made of 6 mm thick stainless steel with orifice of required size in between flange & landing valve of external and internal hydrant to reduce pressure to working pressure of 3.5 kg/cm2 complete as per specifications as required.	66	each	1179.00	77814
280	AR	Supplying, fixing, testing and commissioning of following size non return valve with dual plate of CI body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified. 150 mm dia	3	each	15880.00	47640
281	AR	Supplying, fixing, testing and commissioning of following size non return valve with dual plate of CI body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified. 100 mm dia	54	each	9866.00	532764
282	AR	Supplying, fixing, testing and commissioning of following size non return valve with dual plate of CI body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified. 80 mm dia	4	each	6867.00	27468
283	AR	Supplying and fixing 63mm dia, 15mtr. Long RRL hose pipe with 63mm dia Male and Female Gun metal couplings duly binded with GI wire, rivets etc. conforming to IS 636 (type-A) as required. - Gun Metal	84	each	4645.00	390180



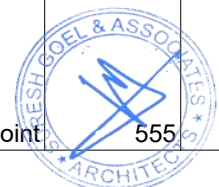
284	AR	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. Drum and brackets for fixing the equipments on wall. 20 mm nominal internal dia gun metal globe valve & nozzle. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 .20 mm nominal internal dia gun metal globe valve & nozzle. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket. - 30 M	66	each	7746.00	511236
285	AR	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required :Gun Metal	66	each	2157.00	142362
286	AR	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : - 4 way-100 mm dia M.S. Pipe	1	each	12477.00	12477
287	AR	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : - 2 way-100 mm dia M.S. Pipe	2	each	6020.00	12040
288	AR	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia Gun metal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel pain of approved shade as required.	4	each	16289.00	65156
289	AR	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm andhydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of follwing sizes as required : -100 mm dia	3	each	40180.00	120540
290	AR	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	1	each	1380.00	1380
291	AR	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required. - 100mm dia	1	each	6709.00	6709
292	AR	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : A) Pendent Sprinkler	536	each	466.00	249776
293	AR	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : B) Horizontal side wall sprinkler	22	each	492.00	10824
294	AR	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. A) 700mm	19	each	1231.00	23389



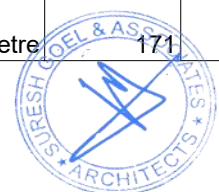
295	AR	Supplying, installation, testing & commissioning of deluge valve (to be used for water curtains) UL listed with wet pilot basic trim assembly for DVA with test and alarm, drip and drain valve with water motor gong complete as required. A) 150 mm	1	each	103066	103066
296	AR	Providing, installation, testing & commissioning of electric release trim assembly for deluge valve with two way solenoid valve, weatherproof operation on 24 volts DC supply complete as required	1	each	6579.00	6579
297	AR	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required. A) Above 35 sq. mm and upto 95 sq. mm	15	metre	309.00	4635
298	AR	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on wall surface as required. A) Upto 35 sq. mm (clamped with 1mm thick saddle)	10	metre	49.00	490
299	AR	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on wall surface as required. B) Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	95	metre	116.00	11020
300	AR	Supplying of XLPE insulated, PVC sheathed aluminium conductor 1.1 KV grade armoured U.G Cable as required A) 3.5x95 sq.mm	100	metre	414.00	41400
301	AR	Supplying of XLPE/PVC insulated stranded copper conductor 1.1 KV grade (un-armoured) of following size as required. - 3 core 50.mm	10	metre	4346.00	43460
302	AR	Supplying of XLPE/PVC insulated stranded copper conductor 1.1 KV grade (un-armoured) of following size as required. - 3 core 16 sq.mm	10	metre	755.00	7550
303	AR	Supplying and fixing of hose cabinet of 750W x 600H x 250D mm made of 18 gauge M.S. sheet with 6mm thick glazed glass door including necessary locking arrangement suitable to accommodate external hydrant with butterfly valve, 2 nos. 15 mtr. long hose pipe, 1 no. branch pipe mounted on wall or raised brick platform and duly painted with post office red externally and white internally with synthetic enamel paint complete in all respect for external hydrant as required.	16	each	7580.00	121280
304	AR	Providing & fixing angle iron (40 mm x 40mm x 5 mm) door frame and M.S. sheet 18 gauge cum glass shutter of size 2.1 mtr. X 1.2mtr. (N.S) with 25mm x 25mm x 3mm angle frame all around & stiffened in between i/c hinges, handle, locking arrangement, painting with approved synthetic enamel paint i/c sign writing on glass at internal hydrant including providing & fixing M.S. sheet 2 mm thick on remaining portion above door to close opening i/c painting etc. as required.	62	each	18650.00	1156300
305	AR	Providing and fixing of ABC modular powder type fire extinguisher consisting of welded MS cylindrical body squeeze lever discharge valve fitted with pressure indicating gauge, internal discharge tube 30 cms long high pressure discharge hose, discharge nozzle, suspension (confirming to IS 13949 finished externally with red enamel paint and fix to wall with (complete with internal discharge) capacity 5kg ISI marked	66	each	5241.00	345906



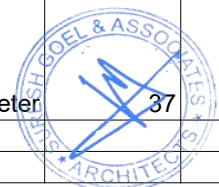
306	AR	Providing and fixing Carbon-di-oxide fire extinguishers consisting of welded M.S cylindrical body,squeeze lever discharge valve fitted with internal dischargetube, 30cms long high pressure discharge hose, discharge nozzle, suspension bracket, confirming to IS : 934 finished externally with red enamel paint and fixed to wall with brackets with rawl plug/dash fasteners complete with internal charge. a) Capacity 4.5 kg. I.S.I. Marked.	66	each	13694.00	903804
		Total				15551197
		Sub Head - I - Point Wiring				
307	1.2.1	Point wiring for light/bell /Exhaust Fan with 2X1.5 sq. mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length in below type of pipe erected with 6A Modular type switch/bell push & accessories and earth continuity of following type erected on PVC/metallic/wooden Box single mounting base frame, covered with textured/metalic white front plate modules erected on / in wall / ceiling as per pipe erected with necessary lamp holder/ ceiling rose/ H.D Connector as directed.(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete-	4230	point	445	1882350
308	1-1-4.	Point wiring for Tissino / Modular secondary light point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires, in below type of pipe to be erected complete with earth continuity and necessary connection with primary light with accessories erected on Metal / PVC / wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic sheet for open / concealed wiring. with necessary Lamp holder / ceiling rose / H.D.Connector as directed.Note:- Maximum up to 6 mtrs length, excess will be considered as Mains for Secondary Point.(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete.	1364	point	150	204600
309	1.2.2	Point wiring for Fan with 2X1.5 sq. mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length in below type of pipe erected with 6A Modular type switch and num free EME four or more step type electronic fan regulator with separately mounted and accessories with earth continuity of following type erected on PVC/ metallic /wooden Box single mounting base frame, covered with textured/ metalic white front plate modules erected on / in wall / ceiling as per pipe erected with necessary ceiling rose/ H.D Connector as directed.(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete-Cat III	901	point	623	561323
310	1.2.5	Point wiring for Two Way Controlled Light Point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of .ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires erected in below type of pipe with 6A Modular type switches and following type of accessories erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling as per pipe erected. with necessary batten/angle holder or ceiling rose or H.D.Connector as directed.(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete-Cat -III	2	point	555	1110



311	1.2.6.a	Providing following type of Modular type Accessories mounted with PVC/metallic.wooden box, single mounting base frame covered with textured / metallic / white front plate, modules erected with necessary connections as per site situation directed by Engineer in charge. (1)One No. SP 6 Amp.Cat III	1757	each	143	251251
312	1.2.6.b	Providing following type of Modular type Accessories mounted with PVC/metallic.wooden box, single mounting base frame covered with textured / metallic / white front plate, modules erected with necessary connections as per site situation directed by Engineer in charge. (2) One No 5 pin plug-Cat III	1757	each	143	251251
313	1.2.6.c	Providing following type of Modular type Accessories mounted with PVC/metallic.wooden box, single mounting base frame covered with textured / metallic / white front plate, modules erected with necessary connections as per site situation directed by Engineer in charge. (9) 16 Amp. SP one way switch-Cat III	1210	each	171	206910
314	1.2.6.d	Providing following type of Modular type Accessories mounted with PVC/metallic.wooden box, single mounting base frame covered with textured / metallic / white front plate, modules erected with necessary connections as per site situation directed by Engineer in charge. (10) 6/16Amp. Universal socket -Cat III	1210	each	189	228690
315	1.2.6.e	Providing following type of Modular type Accessories mounted with PVC/metallic.wooden box, single mounting base frame covered with textured / metallic / white front plate, modules erected with necessary connections as per site situation directed by Engineer in charge. (14) 20 A Double pole Modular MCB switch-Cat II	799	each	387	309213
316	1.4.1.A	Providing & erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked standard copper conductor wire in following type of pipe to be erected concealed in / flushed on wall / ceiling, with 1.5 sq.mm copper conductor FRLS PVC insulated standard wire of green colour for earth continuity of following size. (A) With medium class Rigid PVC pipe and accessories -(A) 2 wire 1.5 sq.mm	7600	metre	59	448400
317	1.4.2.A.i	Providing & erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked standard copper conductor wire in following type of pipe to be erected in / on wall / ceiling, with 2.5 sq.mm copper conductor FRLS PVC insulated standard wire of green colour for earth continuity of following size.(A) with medium class Rigid PVC pipe and accessories-(a) 2 wire 4 sq. mm	33300	metre	106	3529800
318	1.4.2.A.ii	Providing & erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked standard copper conductor wire in following type of pipe to be erected in / on wall / ceiling, with 2.5 sq.mm copper conductor FRLS PVC insulated standard wire of green colour for earth continuity of following size.(A) with medium class Rigid PVC pipe and accessories-(b) 2 wire 6 sq. mm	13980	metre	139	1943220
319	1.4.2.A.iii	Providing & erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked standard copper conductor wire in following type of pipe to be erected in / on wall / ceiling, with 2.5 sq.mm copper conductor FRLS PVC insulated standard wire of green colour for earth continuity of following size.(A) with medium class Rigid PVC pipe and accessories-(g) 4 wire 4 sq. mm	11600	metre	171	1983600



320	1.4.2.A.iv	Providing & erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked standard copper conductor wire in following type of pipe to be erected in / on wall / ceiling, with 2.5 sq.mm copper conductor FRLS PVC insulated standard wire of green colour for earth continuity of following size.(A) with medium class Rigid PVC pipe and accessories-(H) 4 wire 6 sq. mm	1450	metre	246	356700
321	1.4.2.A.v	Providing & erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked standard copper conductor wire in following type of pipe to be erected in / on wall / ceiling, with 2.5 sq.mm copper conductor FRLS PVC insulated standard wire of green colour for earth continuity of following size.(A) with medium class Rigid PVC pipe and accessories-(I) 4 wire 10 sq. mm (use earth wire of 4 sq. mm)	3120	metre	401	1251120
322	1.2.3.a	Point wiring for individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin plug erected on PVC/metallic/wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories. (I) For 6A Plug and 6A switch with 2X1.5 sq.mm Cu wire from nearby switchboard/MCB DB board.-(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete-Cat III	1757	point	469	824033
323	1.2.3.b	Point wiring for individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin plug erected on PVC/metallic/wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories. For 16A Plug and 16A switch with 2X4 sq.mm cU wire with 2.5 sq.mm (Green) earthing wire from MCB DB Board.(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete-Cat III	1210	point	810	980100
324	1-3-2.	Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed (b) 25 mm	4620	metre	32	147840
325	1.2.6.a	Providing following type of Modular Type Accessories mounted with PVC / metallic/wooden box, single mounting base frame covered with textured/metallic / white front plate, modules erected with necessary connectors as per site situation directed by Engineer In Charge. TV Coaxial socket outlet-Cat -III	196	each	152	29792
326	1.2.6.b	Providing following type of Modular Type Accessories mounted with PVC / metallic/wooden box, single mounting base frame covered with textured/metallic / white front plate, modules erected with necessary connectors as per site situation directed by Engineer In Charge. Modular Buzzer-Cat -III	89	each	142	12638
327	1.4.6	Providing & Erecting approved make RG-6 TV Co axial flexible cable comprising inner conductor of solid bare copper insulated with foam PE & secondary conductor made of poly-aluminium film bonded Al braces suitable coverage overall sheathed with black PVC insulation.	5050	meter	37	186850
TOTAL OF SH - I						15590791
Sub-Head - II - Panels & DB'S						



328	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. : MDB - L- (HOSTEL) - Incoming: 315 A, FP MCCB 36 KA - 1 No. with 500 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set Outgoings:63 A TPN MCCB, 25 KA - 2 Nos., 100 A TPN MCCB, 25 KA - 4 Nos., 63 A FP MCB -14. Nos., 40 A TPN MCB - 2. Nos., 315 A TPN MCCB, 36 KA - 1 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	202620	202620
329	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. MDB - P- (HOSTEL) with Incoming: 1000 A, FP ACB 50 KA - 1 No., 1200 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 400 A TPN MCCB, 36 KA - 1 Nos., 200 A TPN MCCB, 25 KA - 1 Nos., 100 A TPN MCCB, 25 KA - 15 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	483590	483590
330	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. MDB - E (Res. Block 2BHK) with Incoming: 250 A, TPN MCCB 36 KA - 1 No., 300 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 100 A TPN MCCB, 25 KA - 3 Nos., 63 A TPN MCCB, 25 KA - 3 Nos., 40 A DP MCB, 10 KA - 3 Nos., 32 A DP MCB, 10 KA - 3 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	106355	106355



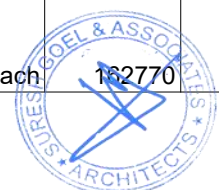
331	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. MDB - N (Res. Block 2BHK) with Incoming: 250 A, TPN MCCB 36 KA - 1 No, 300 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 100 A TPN MCCB, 25 KA - 3 Nos., 63 A TPN MCCB, 25 KA - 1 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	82285	82285
332	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. FDB - L&P (Housing-First Floor) with Incoming: 63 A, FP MCCB 25 KA - 1 No., 200 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 40 A DP MCB - 6 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	17205	17205
333	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. FDB - L&P (Housing-Second Floor) with Incoming: 100 A, FP MCCB 25 KA - 1 No., 200 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings:40 A DP MCB - 10 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set, Indication lamp RYB with Fuses/MCB etc. as req.	1	each	21145	21145



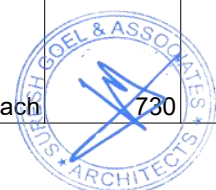
334	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. FDB - L&P (Housing-Third & Fourth Floor) with Incoming:100 A, FP MCCB 25 KA - 1 No., 200 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 40 A DP MCB - 11 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set, Indication lamp RYB with Fuses/MCB etc. as req.	2	each	21705	43410
335	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. MDB - L&P (Director Residence) with Incoming: 100 A, FP MCCB 25 KA - 1 No., 200 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 63 A TPN MCB, 10 KA - 2 Nos., 63 A DP MCB, 10 KA - 3 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	21445	21445
336	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. LIFT PANEL FOR HOTEL BLOCKS (2 Lifts) - Incoming: 100 A, FP MCCB 25 KA - 1 No., 200 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve-1 Set, Outgoings: 63 A TPN MCCB, 25 KA - 2 Nos., 32 A DP MCB - 2 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	3	each	37450	112350



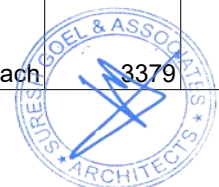
337	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. MDB - L- (SAC Block) with Incoming: 400 A, FP MCCB 36 KA - 1 No., 500 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings:63 A TPN MCCB, 25 KA - 7 Nos., 100 A TPN MCCB, 25 KA - 3 Nos., 200 A TPN MCCB, 25 KA - 1 Nos., 32/40 A TPN MCB - 3. Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	197520	197520
338	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. MDB - P- (SAC Block) with Incoming: 630 A, FP MCCB 50 KA - 1 No., 800 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 250 A TPN MCCB, 36 KA - 2 Nos., 100 A TPN MCCB, 25 KA - 6 Nos., 63 A TPN MCCB, 25 KA - 1 Nos., 63 A TPN MCB - 4 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.,	1	each	218300	218300
339	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. Kitchen Panel - (SAC Block) with Incoming: 250 A, FP MCCB 36 KA - 1 No., 300 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 40 A TPN MCCB, 25 KA - 3 Nos., 63 A TPN MCCB, 25 KA - 4 Nos., 100 A TPN MCCB, 25 KA - 3 Nos., 63 A DP MCB - 6. Nos., 32 A TPN MCB - 3. Nos., 25 A TPN MCB - 3. Nos., 20 A TPN MCB - 5 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selector Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	162770	162770



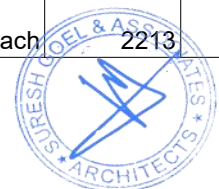
340	MR	Fabrication, supply, installation, testing and commissioning of wall/floor maounted cubicle type LT panels suitable for 415 V 3 phase, 4 wire, 50 Hz AC supply system (IP 42 degree of protection) fabricated in compartmentalized design from CRCA sheet made out of 2 mm thick for frame work & covers 3mm thick for gland plates including cleaning & finishing complete with 7 tank process for powder coating in approved shade, having TPN Al alloy bus bars of high conductivity, DMC/SMC bus bar supports with short circuit withstand capacity of 31 MVA for 1 sec, bottom base channel of MS section. AHU Panel - (SAC Block) with Incoming: 200 A, FP MCCB 36 KA - 1 No., 300 A TPN AL. bus bar with coloured heat shrinkable PVC sleeve -1 Set, Outgoings: 63 A TPN MCCB, 25 KA - 9 Nos., Instruments: Multi Function Meter (MFM) with CTs & Fuses/MCB/Selecter Switch -1 Set , Indication lamp RYB with Fuses/MCB etc. as req.	1	each	126480	126480
341	MR	Supply, installation,testing and commissioning of LT Distribution and Meter Board of 2 mm thick sheet steel cubical design for indoor mounting factory fabricated suitable for operation on 440 V 3 phase, 50 Hz, A.C. supply with MCCBs/MCB and other accessories, all in compartmentalised, cubical construction complete in all respects including mounting plate for KWH Meter, hinged lockable cover with window for Meter reading and internal wiring, labels, ferrules, cable termination gland plates, earth terminals, painting etc. conforming to specifications. Distribution and Meter Board-1 for 11 Three phase Meters with Incoming: 315 A FP MCCB, 36 KA - 1 Nos., 200 A FP MCCB, 25 KA - 1 Nos., Bus Bar:-1 Set of 500 Amps. TPN busbars of aluminium alloy with colour coded heat PVC shrinkable sleeves., Outgoing:- Provision for Meter cubicals for Three phase KWH Meter -11 Nos, 63 A TPN MCB, - 10 Nos., Indication and Metering, Three (3) Nos. LED type Phase indicating lamps with protection 2A SP MCBs.-1 set, SITC of Distribution and meter board described as above.	1	set	102600	102600
342	MR	Supply, installation,testing and commissioning of LT Distribution and Meter Board of 2 mm thick sheet steel cubical design for indoor mounting factory fabricated suitable for operation on 440 V 3 phase, 50 Hz, A.C. supply with MCCBs/MCB and other accessories, all in compartmentalised, cubical construction complete in all respects including mounting plate for KWH Meter, hinged lockable cover with window for Meter reading and internal wiring, labels, ferrules, cable termination gland plates, earth terminals, painting etc. conforming to specifications. Distribution and Meter Board-2 for 11 Three phase Meters with Incoming: 200 A FP MCCB, 25 KA - 1 Nos., Bus Bar:- 1 Set of 300 Amps. TPN busbars of aluminium alloy with colour coded heat PVC shrinkable sleeves., Outgoing:-Provision for Meter cubicals for Three phase KWH Meter -11 Nos., 63 A TPN MCB, - 10 Nos., Indication and Metering, Three (3) Nos. LED type Phase indicating lamps with protection 2A SP MCBs.-1 set, SITC of Distribution and meter board described as above.	1	set	45015	45015
343	3.10.5	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & conforms to IS :8828 in existing box having following capacity -(c)63 Amp.- cat III	14	each	730	10220



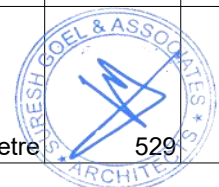
344	3.4.1	Providing and erecting approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA at 415 V, having normal current rating up to 25A to 100A, with fixed thermal & magnetic release suitable to work on AC supply 50c/s with all internal connections & complete erected in existing 16 G.M.S housing.-cat III	37	each	6112	226144
345	3.11.5.(iii)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for (A) Single phase incoming and horizontal single phase outgoing (b) sheet steel double door (IP-43)-8 way Double door	4	each	1141	4564
346	3.11.5.(iv)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for (A) Single phase incoming and horizontal single phase outgoing (b) sheet steel double door (IP-43)-12 way Double door	22	each	1478	32516
347	3.11.5.(v)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for (A) Single phase incoming and horizontal single phase outgoing (b) sheet steel double door (IP-43)-16 way Double door	12	each	1664	19968
348	3.11.5.B.(i)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for Three phase incoming and single phase horizontal type outgoing per phase isolation type (PPI) (b) sheet steel double door-4 way Double door	3	each	2316	6948
349	3.11.5.B.(ii)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for Three phase incoming and single phase horizontal type outgoing per phase isolation type (PPI) (b) sheet steel double door-6 way Double door	30	each	2885	86550
350	3.11.5.B.(ii i)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for Three phase incoming and single phase horizontal type outgoing per phase isolation type (PPI) (b) sheet steel double door-8 way Double door	33	each	3379	111507



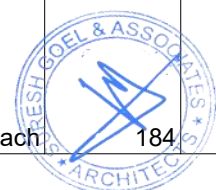
351	3.11.5.B.(i v)	Providing & erecting sheet steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for Three phase incoming and single phase horizontal type outgoing per phase isolation type (PPI) (b) sheet steel double door-12 way Double door	56	each	3836	214816
352	3.11.10	Providing and erecting Sheet Steel powder coated Vertical MCB distribution board (VTPN) - flush / surface mounted double door (IP54) fitted with copper insulated busbar, isolated neutral bar, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3, suitable for 63/100 AMP TPN MCCB + RCCB as incomer and three phase outgoing as per following .(The DBs should be used of same company of MCB to be used) -(A) 4 way outgoing	36	each	5760	207360
353	3.11.6.a	supplying & erecting sheet steel powder coated cable end termination Box to be mounted on Top or Bottom of MCB Distribution Box for housing / Covering Extra wires & cables suitable for following size of MCB Db Box -(C) Single phase 8 way	28	each	323	9044
354	3.11.6.b	supplying & erecting sheet steel powder coated cable end termination Box to be mounted on Top or Bottom of MCB Distribution Box for housing / Covering Extra wires & cables suitable for following size of MCB Db Box-(D) Single phase 12 way	22	each	386	8492
355	3.11.6.c	supplying & erecting sheet steel powder coated cable end termination Box to be mounted on Top or Bottom of MCB Distribution Box for housing / Covering Extra wires & cables suitable for following size of MCB Db Box-(E) Three Phase 4 Way	3	each	492	1476
356	3.11.6.d	supplying & erecting sheet steel powder coated cable end termination Box to be mounted on Top or Bottom of MCB Distribution Box for housing / Covering Extra wires & cables suitable for following size of MCB Db Box-(F) Three phase 6 way	30	each	577	17310
357	3.11.6.e	supplying & erecting sheet steel powder coated cable end termination Box to be mounted on Top or Bottom of MCB Distribution Box for housing / Covering Extra wires & cables suitable for following size of MCB Db Box-(G) Three phase 8 way	33	each	683	22539
358	3.11.6.f	supplying & erecting sheet steel powder coated cable end termination Box to be mounted on Top or Bottom of MCB Distribution Box for housing / Covering Extra wires & cables suitable for following size of MCB Db Box-(H) Three phase 12 way	56	each	789	44184
359	3.10.1 (B)	Providing & erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C system and having breaking capacity 10 KA to be erected in existing box confirming to IS 8826/1996 with ISI mark.-cat III	2990	each	111	331890
360	3.12.1.(ii)	Providing & erecting approved make ELCBs / RCCBs confirming to IS : 12640 and having sensitivity of 30 mA and short circuit withsatnd capacity of 10KA and suitable for operation on single phase 240 V, 50 Hz having characterstic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max rating erected as directed-40 Amps DP-cat III	165	each	2213	365145



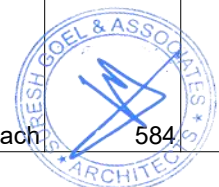
361	3.12.1.(iii)	Providing & erecting approved make ELCBs / RCCBs confirming to IS : 12640 and having sensitivity of 30 mA and short circuit withsatnd capacity of 10KA and suitable for operation on single phase 240 V, 50 Hz having characterstic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max rating erected as directed-63 Amps DP-cat III	240	each	2628	630720
362	3.10.7	Providing & erecting double pole Miniature Isolator A.C.22 duly confirms to IS 13947-3 240 V 40 A in existing box.-cat III	38	each	310	11780
363	3.10.9.a	Providing & erecting Four pole Miniature Isolator A.C.22 duly confirms to IS 13947-3 in existing box.-(a) for 40 amps -cat III	42	each	484	20328
364	3.10.9.b	Providing & erecting Four pole Miniature Isolator A.C.22 duly confirms to IS 13947-3 in existing box.-(b) for 63 amps -cat III	80	each	590	47200
365	3.10.6.a	Providing & erecting 415 V MCB three pole for motor & inductive Load (C curve) having 10KA breaking capacity & confirms to IS 8828 in existing box having following capacity-(b) 40 amps -cat III	72	each	641	46152
366	3.10.6.b	Providing & erecting 415 V MCB three pole for motor & inductive Load (C curve) having 10KA breaking capacity & confirms to IS 8828 in existing box having following capacity-(c) 63 amps -cat III	72	each	709	51048
367	3.13.1	Providing & erected metallic vitrified danger notice board as per language suggested by Engineer Incharge for MEDIUM VOLTAGE installation to be erected as per IS-	196	each	69	13524
TOTAL OF SH - II						4484515
Sub Head - III - Cables						
368	4.11.1.3	Providing & fixing approved make Perforated C type Cable tray, made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062 / 1079 and shall be coated with hot dip galvanizing as per IS 2629/4759 with max 17.5% perforation with coupler plate / fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support included) as per specification and as per instruction of Engineer In charge.-(3) 150 x 50 x 1.6 mm thick	360	metre	420	151200
369	4.11.1.5	Providing & fixing approved make Perforated C type Cable tray, made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062 / 1079 and shall be coated with hot dip galvanizing as per IS 2629/4759 with max 17.5% perforation with coupler plate / fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support included) as per specification and as per instruction of Engineer In charge.-(5) 300 x 50 x 2.0 mm thick	180	metre	616	110880
370	4.3.3.a	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(C) 3.5 core 50 sq. mm (25 sq. mm 0.5 core)	940	metre	279	262260
371	4.3.3.b	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(D) 3.5 core 70 sq. mm (35 sq. mm 0.5 core)	300	metre	369	110700
372	4.3.3.c	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(F) 3 1/2 core 120 Sq. mm (70 Sq. mm 1/2 core)	20	metre	529	10580



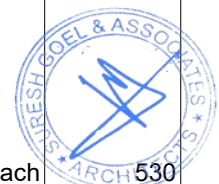
373	4.3.5.a	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(A) 4 core 16 Sq. mm	770	metre	150	115500
374	4.3.5.b	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(B) 4 core 25 Sq. mm	300	metre	187	56100
375	4.6.1	Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables. -(D) 2 to 4 core 16 Sq. mm	28	each	47	1316
376	4.6.3.a	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(A) 3.5 / 4 core 25 Sq. mm	34	each	66	2244
377	4.6.3.b	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(B) 3.5 core 35/50 sq. mm	64	each	75	4800
378	4.6.3.c	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(C) 3.5 core 70 sq. mm	8	each	102	816
379	4.6.3.d	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(E) 3 & 1/2 core 120 Sq. mm	2	each	139	278
380	4.7.1.a	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly climped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.-(C) 16/25 Sq.mm.	62	each	15	930
381	4.7.1.b	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly climped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.-(D) 35/50 sq. mm	64	each	20	1280
382	4.7.1.c	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly climped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.-(E) 70 sq. mm	8	each	25	200
383	4.7.1.d	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly climped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.-(G) 120 Sq.mm.	2	each	45	90
		TOTAL OF SH - III				829174
		SH - IV - Supply & Installation of Light Fitting, Fans and Fixtures				
384	MR	Installation, testing and commissioning of prewired, fluorescent fitting / LED fittings of all types , complete with all accessories and tube etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, copper conductor, single core cable etc. as required.	111	each	184	20424



385	2.15.3.C.a	Supplying and erecting LED Indoor fittings with LEDs of wattage 0.2 watt to 0.5 watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet steel confirming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 120 to 300 V, power factor more than 0.9, THD< 10%, CCT 3000 K to 65 K. Luminaire efficacy > 85 lumens/watt. LED efficiency 110 lumens/watt, LED driver efficiency > 85%. CREE/OSRAM/PHILIPS Lumileds/NICHIA/SEOUL/Bridgelux make LED used for luminaire (fitting required LM-79 & LM-80 certificates)(Note: below description have shown ranges of wattage capacity of LED fittings. The Engineer Incharge may select any wattage capacity between the ranges shown).All LED fixtures shall be with minimum 5 years replacement warrantee.(A) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20, -(a) 5-9 watts, surge-2 KV-Cat - III	161	each	218	35098
386	2.15.3.C.b	Supplying and erecting LED Indoor fittings with LEDs of wattage 0.2 watt to 0.5 watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet steel confirming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 120 to 300 V, power factor more than 0.9, THD< 10%, CCT 3000 K to 65 K. Luminaire efficacy > 85 lumens/watt. LED efficiency 110 lumens/watt, LED driver efficiency > 85%. CREE/OSRAM/PHILIPS Lumileds/NICHIA/SEOUL/Bridgelux make LED used for luminaire (fitting required LM-79 & LM-80 certificates)(Note: below description have shown ranges of wattage capacity of LED fittings. The Engineer Incharge may select any wattage capacity between the ranges shown).All LED fixtures shall be with minimum 5 years replacement warrantee.(A) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20, -(b) 11-15 watts, surge-2 KV-Cat - III	3181	each	423	1345563
387	2.15.3.C.c	Supplying and erecting LED Indoor fittings with LEDs of wattage 0.2 watt to 0.5 watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet steel confirming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 120 to 300 V, power factor more than 0.9, THD< 10%, CCT 3000 K to 65 K. Luminaire efficacy > 85 lumens/watt. LED efficiency 110 lumens/watt, LED driver efficiency > 85%. CREE/OSRAM/PHILIPS Lumileds/NICHIA/SEOUL/Bridgelux make LED used for luminaire (fitting required LM-79 & LM-80 certificates)(Note: below description have shown ranges of wattage capacity of LED fittings. The Engineer Incharge may select any wattage capacity between the ranges shown).All LED fixtures shall be with minimum 5 years replacement warrantee.(A) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20, -(c) 16-20 watts, surge-2 KV-Cat - III	129	each	584	75336



388	2.15.3 (D)	Supplying and erecting LED Indoor fittings with LEDs of wattage 0.2 watt to 0.5 watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 120 to 300 V, power factor more than 0.9, THD< 10%, CCT 3000 K to 65 K. Luminaire efficacy > 85 lumens/watt. LED efficiency 110 lumens/watt, LED driver efficiency > 85%. CREE/OSRAM/PHILIPS Lumileds/NICHIA/SEOUL/Bridgelux make LED used for luminaire (fitting required LM-79 & LM-80 certificates)(Note: below description have shown ranges of wattage capacity of LED fittings. The Engineer Incharge may select any wattage capacity between the ranges shown).All LED fixtures shall be with minimum 5 years replacement warrantee. (B) LED Panel light with provision for plane front frame with translucent cover fixed to housing complete IP 20., (vi) 36 watts, 24" x 24", Surge- 2KV,-Cat - III	140	each	1777	248780
389	2.15.1.a	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 160V to 270V, Power Factor more than 0.95, THD < 15%,, CCT 3000 K to 6500K,, Luminaire efficacy> 85 lumens/watt ,LED, LED driver efficiency > 85 %, (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) -(A) Tube light with integral driver- (i) 5-10 Watts, Surge-2 KV, IP-20,	399	each	164	65436
390	2.15.1.b	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 160V to 270V, Power Factor more than 0.95, THD < 15%,, CCT 3000 K to 6500K,, Luminaire efficacy> 85 lumens/watt ,LED, LED driver efficiency > 85 %, (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) -(A) Tube light with integral driver-(iii) 18-20 Watts, Surge - 2KV,IP-	297	each	293	87021
391	2.15.1.c	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 160V to 270V, Power Factor more than 0.95, THD < 15%,, CCT 3000 K to 6500K,, Luminaire efficacy> 85 lumens/watt ,LED, LED driver efficiency > 85 %, (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) -(A) Tube light with integral driver-(v) 36-40 Watts, Surge-2 KV, IP-20, conventional 4 feet-Cat - III	158	each	530	83740



392	2.17.3	Providing and erecting PVC body surface or pendant mounting LED Bulk type 9 watt Lighting fitting with electronic driver and lumen output from luminaire 720 lm, input voltage range 90-300 VAC, 50 Hz cool white (3000 to 6500 K), inbuilt driver, 20 degree C to + 60 deg C working temperature, AL frame with Beam Angle 120 deg.	138	each	780	107640
393	2.16.2	Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 1Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses with company mark/name engraved or embossed 120 to 300 V,Power Factor more than 0.95, THD < 10 %, CCT 3000 K to 5700K, Uniformity ratio >0.45, Luminaire efficacy> 100 lumens/watt . LED driver efficiency > 85 %.CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/ BridgeLux (U.S.A.) make LED used for luminaire. (fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)-(B) Flood Light (IP-65), Surge -4KV,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply-(IV) above 90 to 120 watts- Cat-III	28	each	7195	201460
394	2.17.4	Supplying & erecting of LED type High bay fixture having power consumption of following watts with, (input voltage 110 - 290 V AC with full efficiency, power factor > 0.9 with 50/60 Hz, CCVC LED driver used for maximum power saving. Best quality Aluminium alloy housing and aluminium Dome for better heat dissipation, CCT Cool white (6000 K), CRI 80, Beam angle > 120 degrees, working temperature -20 deg. C to +55 deg.C Body IP 65.- (B) 90 to 150 watts	8	each	5696	45568
395	2-6-1.	Providing and erecting decorative wall bracket fittings complete with LED lamp and rust free fittings components mounted in chrome finish housing with holder ,clear/opaque glass diffuser complete erected with lead wires with minimum 15 wattage capacity as per instruction engineer incharge/ architect/ authority .cat-III	197	each	1696	334112
396	MR	Supplying of Linear Suspended LED fitting with a nominal system Wattage <= 36-40 W, System Lumen >= 4000,system efficacy at System level (Not Chip Level) >110lumens/watt, Life of fixture 50000hrs@L70% Lumen maintenance, CCT Range 5700-6500 K, CRI >80, PF >0.95, THD <9%. The luminaire shall have a rated system lifetime of 50,000 burning hours at L70. The luminaire shall meet IP20 rating. The luminaire housing should made of pressure die cast aluminium and the luminaire optics shall have a high efficiency diffuser with more than 85% transmittance. Model should be equal to havells destelo generation-2- DESTG250LP/S36WLED857SWH1130 or similar from approved make list.	113	each	6580	743540



397	MR	Supplying of LED Recessed/ surface Downlighter with a nominal system Wattage <= 40-45 W, System Lumen >= 4400-4950,system efficacy at System level (Not Chip Level) >110lumens/watt, Life of fixture 50000hrs@L70% Lumen maintenance, CCT Range 5700-6500 K, CRI >80, PF >0.95, THD <9%. The luminaire shall have a rated system lifetime of 50,000 burning hours at L70. The luminaire shall meet IP20 rating. The luminaire housing should made of pressure die cast aluminium and the luminaire optics shall have a high efficiency diffuser with more than 85% transmittance.The fixture should comply with the parameters as per IS10322.	40	each	3833	153320
398	MR	Supply of 5-6 W LED Exit & matter at per site requirement Light with inbuilt battery backup of 2 hours, including drivers, fixing accessories complete as required. The fixture should have sufficient intensity and all fixing arrangement complete as required at site. Bajaj : BESL 03 LED DSD WBB Red/Green or equivalent of Decon and Insatpower	49	each	3717	182133
399	MR	Supply of Ceiling Hanging (Chandelier) complete with electronic driver and LED lamp etc directly on Ceiling including connection with 1.5Sqmm FRPVC insulated copper conductor cable, hanging arrangement, fastners and earthing the body etc. complete as required of approved Make similar to Jaquar-CHL-GLD-AS8051B-D 400 x H 180 MM)	4	each	37052	148208
400	MR	Supply of Ceiling Hanging Light with 30W LED fitting complete with electronic driver and LED lamp etc directly on Ceiling including connection with 1.5Sqmm FRPVC insulated copper conductor cable and earthing the body as required of approved Make.	18	each	5132	92376
401	5-1-1.	Providing and erecting Approved make Ceiling fan with double ball bearing ISI mark with condenser A.C. 230V.50 c/s.1200 mm. sweep complete, canopy erected on existing hook or clamp with earthing. [Make shall be approved by Engineer in charge]	529	each	1581	836349
402	5-1-2.	Providing & erecting Approved make Ceiling Fan with double ball bearing ISI mark with condenser A.C.230V 50c/s. 1400 mm. sweep complete, canopy erected on existing hook or clamp with earthing [Make shall be approved by Engineer in Charge]	370	each	1721	636770
403	5.3.4.a	Supplying & erecting Single phase approved make industrial exhaust fan suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM-(A) 305 mm dia. 900 RPM, Cat II	438	each	2034	890892
404	5.3.4.b	Supplying & erecting Single phase approved make industrial exhaust fan suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM-(E) 450 mm dia. 1400 RPM, Cat II	7	each	3899	27293
405	5.3.6	Providing suitable M.S. louver shutter of the Exhaust Fan.	445	each	365	162425
406	5.4.2	Supplying & erecting approved make oscillating type bracket fan A.C. 230 V, 50 cy/s 400/450 mm sweep wall mounted with height adjustment and rotary tilting device complete with guard, flexible core plug top complete erected with lead wires as directed. Cat - II	2	each	2509	5018



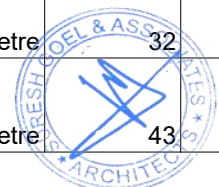
407	3.17.3	Providing & erecting stand alone ceiling mount PIR motion Sensor with ABS Housing single phase AC operation. Complete with Dual element pyroelectric sensor, Digital Signal Processing Detection Range 14 feet at 10 feet height, angle 360 degree, RFI and EMI immunity, Detects motion in it's coverage area. Multipurpose device can be used as security device, an energy saving device, an automatic switch. Complete with infra red sensor, Light & sensitivity Sensor, Timer with Bye pass facility. Complete with 20 Amp. relay to Operate on 1.5 tonne window Air Conditioner, In addition to 6 tube lights	20	each	5191	103820
408	8-13-2.	Providing & erecting water cooler having storage capacity 150 Ltr. & cooling capacity 150 Ltr.per hour @ an ambient temp of 45° C. The outlet temp. of the water should drop by 15° C within a hour, The water cooler should be comprising of hermetically sealed compressor, fan motor, condensing unit, water tank surrounded by evaporating, coil, thermostats, relay etc.complete with necessary inlet & outlet connection. The body of water cooler will be made from Stainless Steel	14	each	46187	646618
409	8-13-6	Supplying & erecting reverse osmosis (RO) water purification system with M.S. powder coated pedestal frame, prefilter housing carbon filter suitable buster DC pump, auto low & high pressure switches with following size of LPH capacity & erected as directed .E] 200 LPH with 1 phase / 3 phase Raw water pump of 1000LPH @ 2.5kg/cm2 (1No - Kirloskar/CRI/Lubi) , Dual media filter 10"x54" (1 No), Micron catridge filter 20" x 2.5" - (1No), High pressure pump 1000LPH @ 10kg/cm2 - (1No - Shimge /CRI /Lubi) , RO Membrane housing with RO membrane of 40*40 - (1 No),RO pressure tube 4" x 1E-(1No), 0-1200LPH Rotameter-(2 Nos). Recovery Rate 50%.	1	each	77289	77289
410	8-16-1.	Supplying and erecting approved make Instantaneous type water heater with 3ltr.capacity rust free container housed in ABS plastic body insulated with glass wool / puff insulation and 3 Kw heating elements, adjustable thermostat 30° C to 85° C with set to operate at 85° C (+ /- 6° C) auto reset indication lamps, thermal cut-out, safety valve fusible plug etc.- Cat-III	148	each	3641	538868
411	8-16-2.	Supplying and erecting horizontal / vertical mounting type storage water heater with copper container housed in M.S./S.S./ABS body insulated with glass wool/puff complete with heating elements, adjustable thermostats 300C to 850C, indicating lamp, safety valve, fusible plug, etc.complete erected with coach bolts, nuts. washers & cementation.-(C)25 Ltr. with 2 KW. heating element - Cat-III	228	each	7950	1812600
TOTAL OF SH - IV						9707697
Sub-Head - V - Earthing & Lightning Conductor						



412	3.14.10	Supplying & erecting in earthpit of minimum bore dia. 225mm size approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 80 mm having 80-200 Micron galvanising, Inner pipe dia of 40 mm having 200-250 Micron galvanising, connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistane mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphar content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency. [A] For electrical installation up to 440 V, Length of Pipe - 1 Mtr, Back filling compound - 1 Nos. of Bag of 15 Kgs.	16	each	5785	92560
413	MR	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	4	each	12355	49421
414	3.14.12	Supplying & erecting funnel type earthing having earth plate of following size burried in specifically prepared earth pit 3 mtr, below ground with 40 kg charcoal and salt with alternate layers of charcoal & salt, 20 mm dia GI pipe with funnel with a wire mesh for watering & bricks masanory block CI cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanized Iron / copper earth wire no. 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following Specification. (B) with 45 x 45 x 0.35 cms. G.I. earth plate	2	each	2543	5086
415	3.14.2	Providing and erecting required size HOT deep galvanized iron strip for earthing of H.T, OCB/ACB/Transformer LT panel board, motors etc. using proper clamp.	788	Kg	77	60676
416	3.14.3	Providing and erecting required size Copper strip for earthing of H.T, OCB/ACB/Transformer LT panel board, motors etc. using copper clamp.	66	Kg	787	51942
417	3.14.5	Providing and erecting Hot deep Galvanized Iron strip wire 8 to 16 SWG.	341	Kg	77	26231
418	10.5.1	SITC of Vertical Air Terminal Solid aluminium with base-10 mm dia and 1000 mm long. Air Termination base tested for conditioning, ageing test & Lightening impulse current withstand test: 100 KA of 10/350 Us waveform in an accerdited third party laboratory as per 6.3 & 6.4 of IEC 62561-1 2017 protocol with MAST 34 mm dia 3000 mm long-Cold Galvanized.	15	each	9323	139845



419	10.5.2	SITC of 8 mm dia solid Aluminium Conductor for roof top mesh grid and tested as per IEC 62561- 2 conducted in the Govt. accredited thirty party laboratory to meet the requirement of IS/IEC 62305 with Required Accessories - Aluminium Holding clamp at every 1 mtr distance, Aluminium/SS cross splicer at every crossing of Alu. conductor, Expansion piece with connectors at every 20 mtr distance, Aluminium straight Splicer to connect conductors. All Accessories should be tested as per IEC 62561-1 2018 Cl. 6.3 for conditioning & Ageing Test & 6.4 for Lightning impulse current withstand test: 100 kA of 10/350µs waveform(Ageing & Electrical test) conducted in a sequence manner & tested in the Govt. accredited Third party laboratory to meet the requirements of IS/IEC 6230	920	metre	297	273240
420	10.5.3	SITC of 10 mm MS Round solid conductor having smooth surface should be tested and use exclusively for lightening protection (vertical Riser / down conductor which shall be concealed in column) to meet the requirement of IS IEC 62305 with accessories. Earthing stud of dimensions SS-75 mm OD plate with 10 mm dia tail connector used in structural steel ring earthing system to meet the requirement of IS / IEC 62305. (For interconnecting the column and Terrace AL Conductor / strip/ flat SS cross connector to connect Earth fixing oint to vertical raiser / down conductor. SS straight splicer at every 4 mtr to connect MS conductor in column. Bonding / Rehar clamp at every 3 mtr suitable for innerconnecting round conductor with reinforcement inside the concrete for structural earthing system, SS connector - To connect external conductor 8-10 mm with earth fixing point. All accessories shall be test as per IEC 62561 I 2018 Cl.6.3 for conditioning & ageing test & 6.4 for lightening impulse current withstand test:100 KA of 10/350 Us waveform (Ageing & Electrical test) conducted in a sequence manner & tested in the Govt. accerdited Third party laboratory to meet the requirements of IS/IEC6230.	706	metre	721	509026
421	10.5.4	SITC of Galvanized steel flat 25X6 mm thickness from earth electrode directly in ground as required. Zinc coating 500 g/m square (approx 70 micron coating) tested used exclusively for lightening protection earthing system and ring equipment bonding.	570	metre	153	87210
422	10.5.5	SITC of 14.2 mm dia 3 mtr long earth electrode of high tensile steel electrode with 250 micron copper bonding & 1 bag of carbon fill based environment friendly backfill tested as per IEC 62561-7 in NABL accerdited Laboratory and suitable stainless steel double sided clamp. Eco friendly rust proof heavy duty weather proof polythylene earth pit chamber with following dimensions: 254 mm dia (top) 330 mm dia (bottom) & 260 mm (height).	16	per set	5933	94928
TOTAL OF SH - V						1390165
Sub Head - VI - Passive Cabling & LAN System						
423	1.3.2	Providing & erecting ISI mark Medium class RIGID PVC Pipes of following size complete to be erected on / in wall or ceiling erected with necessary PVC fittings & junction boxes fixed with adhesive solution & clamps with following dia of pipes, in approved manner as directed.-(b) 25 mm	12900	metre	32	412800
424	7.13.5	SITC of CAT6 UTP 23AWG Solid: Per Meter.[Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	38100	metre	43	1638300

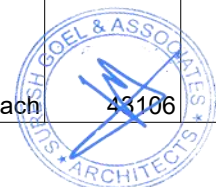


425	7.13.8	SITC of Jack Cat 6 Keystone UTP {Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	739	each	160	118240
426	MR	Supply , Installtion , Testing and comissioning of 15U wall mount rack with fans, 5 cable managers, sationary shelf, 2 Nos of hardware pkts & 5Nos. 6/16A sockets PDU also complete as required.	12	each	15668	188016
427	MR	SITC of 800 mm x 1000 mm 42 U Free standing cabinet with front locable door , side panels, 230 V AC 90 CFM fan 2 , three Hardware packet 1 set (containing 20 Nos each of 3), AC power strip. Cantilever Tray 1U 225D, one earthing Strip 150 mm H,1 Cable manager 1U height.	2	each	56970	113940
428	7.13.11	SITC of CAT6 UTP 24AWG PATCH CORD:1M,Plug 30U' Snag less .[Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	739	each	155	114545
429	7.13.12	SITC of CAT6 UTP 24AWG PATCH CORD:2M,Plug 30U' Snag less . [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	734	each	199	146066
430	7.13.10	SITC of Patch Panel Cat 6 UTP Keystone Type- 24 Port-Fully Loaded. [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	43	each	4357	187351
431	7.13.7	SITC of Face Plate - Dual (Keystone Jack,square) . [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	739	each	100	73900
432	7.13.1	SITC of O. F.Cable 06F Outdoor - Armoured Unitube SM - HDPE Sheath [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	1250	Mtrs.	50	62500
433	7.13.2	SITC of LIU 12 PORT Rack Mount - Loaded (LC) SM . [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	19	each	6833	129827
434	7.13.3	SITC of PIGTAIL LC SM SIMPLEX LENGTH- 1m. [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	42	each	772	32424
435	7.13.4	SITC of PATCH CORD LC-LC SM DUPLEX LENGTH- 3m . [Approved by Competent Authority i.e. not Below the rank	44	each	1883	82852
436	7.13.18	SITC of 20 x SFP ports 4 x Combo 10/100/1000BASE-T/SFP ports 4 x 10G SFP+ ports 6 kV surge protection on all RJ-45 access ports Switch Resource Management (SRM) for fl exible management of system resources Redundant Power Supply (RPS) support MPLS L2VPM/L3 VPN support Full L3 routing protocol support including OSPF, BGP, and ISIS for IPv4/IPv6 SDN-enabled switch, compatible with Openflow 1.3 10-GbE SFP+ to SFP+ 1M Direct Attach Cable [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	2	each	641527	1283054
437	7.13.15	SITC of 24 x 10/100/1000BASE-T PoE ports 4 x Gigabit RJ45/SFP Combo ports Advanced L2 switching and security features L2+ Static Routing Optional " standard mode " or " surveillance mode " management user interface 193 W PoE budget [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	43	each	31680	1362240



438	7.13.17	SITC of Maximum distance of up to 10 km Hot-pluggable Single-mode fiber 1000BASE-LX (IEEE 802.3z standard) Duplex LC connector MSA, RoHS-compliant [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	104	each	4754	494416
439	MR	Supplying, installation, testing & commissioning for Indoor Access Point, should support dual-band 802.11abgn/ac/ax Wireless Access Point with Multi-Gigabit Ethernet backhaul and onboard BLE/Zigbee,, 4x4:4 streams (5GHz) 4x4:4 streams (2.4GHz), OFDMA, MU-MIMO, BeamFlex+, dual ports, 802.3at PoE suppor.Device should have atleast 5 years of support & shall be with all accessories as required.	58	each	79909	4634722
440	MR	Supplying, installation, testing and commssioning of dedicated hardware based wireless controller with 4x10G SFP+ & 4x 1G SFP ports, populated with 100 Access points license with 5 years support from Day-1. The controller should support Unique PSK, AP Survivability, WIDS/WIPS, scalable to 1000 APs or more. Should support	1	each	1149762	1149762
TOTAL OF SH - VI						12224955
Sub Head - VII - IPABX SYSTEM						
441	7.1.2	SITC of Digital / PCM / TDM EPABX System having SMT design, system with flexible universal slots. Inbuilt Auto attendant facility, Minimum 15 Nos. conference, Analog extension line, Calling GSM, E&M line, PRI / EI & VOIP program me through Analog telephone digital key from Ethernet, public address cord, shall have unrestricted simultaneous dialing facility, QSIG protocol on PRI, 95 / STD / ISD / Local-Locking, Class of Service, Quick Dial-Single Digit dialing of any two external number, Once only ring device, Chairman / Secretary - Do not disturb Facility, Power Down Mode, Hot Line, Hot Outward Dialing, Day Night Mode, Auto Call Back, Barge-in, Call Pick Up & Call Transfer, Call transfer while Ringing with Voice Guide System, (DISA), Caller ID (CLI), CLI Base ECF, CLI Base routing Internet Ready Port, External Music Port, Call Budgeting, Call Most Calculation (ASMDR), DID Direct Inverse Dialing, External Music Input, Fax Homing, Global Directory Printing with following capacities [[Approved by Competent Authority i.e. not Below the rank of Executive Engineer] -(E) No. of Extension 128, No. of junctions 24, No of Expendable ports:512, Operator Console-01, Compatible : ISDN and Networking	2	Set	172878	345756
442	7.1.4	Providing and erecting IP Phone with display with all IP system supported [[Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	200	each	5594	1118800
TOTAL OF SH - VII						1464556
Sub Head - VIII - Fire Detection & PA System						
443	MR	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	192	each	2552	489984
444	MR	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed temperature thermister complete with base as required.	8	each	2434	19472
445	MR	Supplying, installation, testing & commissioning of addressable fire control module complete as required.	94	each	2681	252014
446	MR	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.	65	each	3130	203450

447	MR	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	65	each	3456	224640
448	MR	Supplying, installation, testing & commissioning of fire fighter phone jack complete as required.	65	each	1429	92885
449	MR	Supplying, installation, testing & commissioning of fire fighter telephone handset complete as required.	18	each	5125	92250
450	MR	Supplying, installation, testing & commissioning of intelligent interface unit BACnet/ Modbus protocol i.e. supplying communication links between building management system and fire alarm control panel complete as required.	1	each	167629	167629
451	MR	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	21	each	2920	61320
452	MR	Supplying, installation, testing & commissioning of central graphical fire alarm management system to centrally monitor and operate the fire alarm system complete as required.	1	each	179117	179117
453	MR	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per	3	each	213594	640782
454	7.10.75	SITC of Controller Heart of the Plena Voice Alarm System EN 54-16 certified Built-in message manager and 240 W amplifier Six-zone outputs 6 emergency and 6 business triggers.[Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	3	each	174724	524172
455	7.10.83	SITC of Ceiling speaker, 6W, metal [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	345	each	643	221835
456	7.10.33	SITC of Power amplifier, 2x500W 2 X 500 W class-D power amplifier (70/100 V output) Low power consumption in standby mode Excellent sound quality, high signal-to-noise ratio EN 54-16 and ISO 7240-16 system certification [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	5	each	217686	1088430
457	7.10.70	SITC of Call station for 6-zone Stylish six-zone call station, intended for LBB 1925/10 system pre-amplifier Unidirectional condenser microphone on flexible stem Six zone selection keys, all-call key, and momentary PTT-key for calls Selectable gain, speech filter, and limiter for improved intelligibility Selectable priority levels and different pre and post-call chimes LED indications for zone selection, system activity, and call station status [Approved by Competent Authority i.e. not Below the rank of Executive Engineer]	3	each	43106	129318



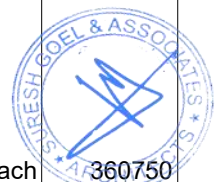
458	1.3.11	Providing & erecting 16 gauge HGS conduit pipe (as per IS) painted black surface/concealed of following size complete to be erected on/in wall or ceiling with erected with necessary saddles, screws, bends, junction boxes etc. with following (Nominal Bore) dia of pipes, in approved manner as directed -25 mm	5700	metre	103	587100
459	MR	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.-speaker cable Single pair, 2-core, 1.5 sqmm	3900	each	48	187200
460	MR	Supplying and drawing following sizes of FR PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/PVC as required.-2 x 1.5 sq. mm	3000	metre	63	189000
TOTAL OF SH - VIII						5350598
Sub Head - IX - CCTV System						
461	MR	Supply, Installation, Testing & Commissioning of 2MP IP Network TDN Low-Light IR Rugged Dome Camera , 1/2.8" CMOS or better, 2MP (1920 x 1080) @ 25fps or better, triple stream at various resolution & Frame Rates, Min. Illumination required 0.005 lux @ F1.6 (color), 0 Lux IR On, 4 IR LEDs Smart IR with upto 50m IR distance, Auto ICR (Infrared Cut Filter) 120dB True WDR, S/N Ratio 50db, Shutter Speed 1/8 - 1/30,000; Advance Video Compression technology such as H.265 & H.264 High Profile & MJPEG , Triple stream, 2.7 to 13.5mm 5X motorized focus & zoom lens, Field of View FoV H:88°-24°, BLC, HLC, 3DNR White Balance, Minimum Edge Intelligence Video Analytics : Video Motion Detection, Tampering, Loitering, Intrusion, & People Counting, 4 Privacy Mask, 8 Region Of Interest, Defog, TLS1.2, AES-128/256, SSH/Telnet closed, Stream Encryption, Dual channel Audio, Alarm: 1In/ 1out, 256GB SD card support, PoE (802.3 af) and 12V DC, Max 6W, IP 67, IK 10 vandal proof with Die Cast Aluminium Housing, Having Operating temp range : -40°C to 60° C. Certifications: ONVIF Profile S/G/T compliant, UL/CSA 62368-1, CE (EN 50130-4), FCC Part 15, EN 55032, RoHS (EN63000) & NDAA Section 889 compliant.	12	each	26538	318456



462	MR	Supply, Installation, Testing & Commissioning of 2MP IP Network TDN Low-Light IR Rugged Bullet Camera , 1/2.8" CMOS or better, 2MP (1920 x 1080) @ 25fps or better, triple stream at various resolution & Frame Rates, Min. Illumination required 0.005 lux @ F1.6 (color), 0 Lux IR On, 4 IR LEDs Smart IR with upto 60m IR distance, Auto ICR (Infrared Cut Filter) 120dB True WDR, S/N Ratio 50db, Shutter Speed 1/8 - 1/30,000; Advance Video Compression technology such as H.265 & H.264 High Profile & MJPEG , Triple stream, 2.7 to 13.5mm 5X motorized focus & zoom lens, Field of View FoV H:80°-24°, BLC, HLC, 3DNR White Balance, Minimum Edge Intelligence Video Analytics : Video Motion Detection, Tampering, Loitering, Intrusion, & People Counting, 4 Privacy Mask, 8 Region Of Interest, Defog, TLS1.2, AES-128/256, SSH/Telnet closed, Stream Encryption, Dual channel Audio, Alarm: 1In/ 1out, 256GB SD card support, PoE (802.3 af) and 12V DC, Max 6W, IP 67, IK 10 vandal proof with Die Cast Aluminium Housing, Having Operating temp range : -40°C to 60° C. Certifications: ONVIF Profile S/G/T compliant, UL/CSA 62368-1, CE (EN 50130-4), FCC Part 15, EN 55032, RoHS (EN63000) & NDAA Section 889 compliant. (Axis/Avigilon/ Bosch/ Honeywell Enterprise)	121	each	28197	3411837
463	MR	Supply, Installation, Testing & Commissioning of Outdoor 1/2.8 inch CMOS 5MP or better, IR PTZ Camera, Effective pixels 2592 x 1944, 5MP, 25 fps; 30x Optical Zoom & 16x Digital Zoom, tripple stream; IR distance: 150 meter; Lens type: Wide 5 to 6mm, Tele 150 to -180mm Motorized Auto focus zoom lens; Memory card slot: Min 256GB support. Minimum Illumination- Sense up on-Color: 0.005 lux color, B/W: 0 lux IR On, WDR 120dB, Edge Video Analysis Video Motion Detection, Intrusion, Lioter, Counter & Tampering, 3DNR, BLC, HLC, White Balance, EIS, Defog, Mechanical switchable IR filter (Auto ICR), Pan Range 360° continuous, Tilt Range -10° to 90°, Pan/Tilt Modes - Pan: 0.1°/s - 180°/s; Tilt: 0.1°/s - 90°/s, Presets 256, Preset Accuracy 0.25 Deg, 16 Patrol & Tours, Alarm I/O - 2In/2Out, 2-Way Audio- 1/1 Channel In/Out, 256GB Memory card slot, 4 individually configurable privacy masks, 8 Region of Interest, POE+ (802.3 at) or 24VAC 3A for indoor/Outdoor application, IP66/67, IK 10 ; Certifications: ONVIF Profile S/G/T compliant, UL/CSA 62368-1, CE (EN 50130-4), FCC Part 15, EN 55032, RoHS (EN63000) & NDAA Section 889 compliant. Approved Makes (Axis/Avigilon/ Bosch/ Honeywell Enterprise)	3	each	182448	547344
464	MR	Supply, Installation, Testing and commissioning of Monitor, 55" LED high resolution monitor with high performance 240VAC, 50 Hz. 24x7 for spot display including all accessories as per specifications and as required to complete the system.	6	each	78785	472710



465	MR	<p>SITC of 128 Channel Network Video Storage Manager Server - NSM shall have Intel® Xeon Silver 4210R, 2.2 GHz or better, Mnimum 32GB RAM, 1+1 750W hot plug redundant power supply, OS drive: 2 x 240 GB in RAID 1; 12 field upgrade up to 20 TB SATA/SAS hard drive options for Video Recording, Data RAID Level: 0, 1, 5, 6, 10. NIC card 4 x 1GbE supporting network throughput of 800 MBPS, Windows Server 2019 R2 64-bit/Windows10 64-Bit IOT Operating System, Microsoft SQL Server/Express 2019. NSM Shall support upto 128 Cameras @ 1080P, 25fps, 09 Remote Client Licenses inbuilt, Web Clients, Monitor Layout up to 4x4, Digital Signature for Video Clip, Continous & Motion Based Recording options, up to 8X forawrd & backward palyback, Playback search as date/time timeline, time jump FWD/REV, bookmarks, calendar, preview, film strip, event search and SMART Motion Search as a min. NVR shall be ONVIF S/G/T certified and liested on ONVIF Website. NVR shall Support Two -Way Audio with cameras equiped with Microphone & Speaker.</p> <p>Recording to be conidered for 30 days at 2MP, 25 FPS in RAID 5. NSM Shall be offered in N+1 Failover.</p> <p>Approved Makes (Axis/Avigilon/ Bosch/ Honeywell Enterprise)</p>	2	each	1036639	2073278
466	MR	<p>Supply, Installation, Testing & Commissioning of Network Video Management Software system for upto 2000 cameras in single server with the following features The NVMMS shall have option to support database redundancy and 1+1 and N+M NSM failover features for unforeseen/maintenance scenarios for increased system reliability, Web client option for simple, no license, no software install applications, Web-based maps with drag-and-drop camera setup, easy cross-site navigation and HTML5 live video pop-up and instant playback, allow quick situational response The NVMMS should support network joystick controller, GPU rendering support for H.264 and H.265 decoding , video on demand, Adaptive video throttling, rule engine, operatore role management, server based Video Motion Detection (VMD), Smart Search, Playback and Clip Export for Efficient Forensic Investigation edge storage backfill support, bookmark with manual comment, bookmark based search, timeline search, Preview search, synchronous playback from all NSMs, monitor wall support, surrounding camera mode, Cybersecured with features such as Digital Signing, General Data Protection Regulation (GDPR) compliance, HTTPS & SSL base, smart web client, secured firewall configuration, password expiry, non-recoverable password; support ANDROID & iOS phones, seamless integration with intgegrated security platform which provides HSDK&API for further integration with 3rd party systems. Cyber Security Features • Enhanced password security – non-recoverable passwords, enforcing complex passwords, password expiry, and no default passwords • Addressed Unauthenticated/Unauthorized channels • Secured firewall configuration • Secured Web client –</p>	1	each	539052	539052
467	MR	<p>Supply, installation, testing and commissioning of SERVER station with windows server lot 2019 complete as specified including all the required OS, Antivirus as per the given specification. Processor - Intel® Xeon® E-2236 3.4GHz Database - Microsoft® SQL Server® 2017 Express Chipset - Intel® C246Memory - 16 GB DDR4 OS Hard Drive - Dual (RAID1) 480GB SSDs for OS Network - 2 x Gigabit Ethernet ports</p>	2	each	360750	721500



468	MR	Supply, installation, testing & commissioning of Client Workstation as per following specifications: Intel Core i7-8700K or better, 4.2GHz, OS - Genuine Microsoft Microsoft® Windows 10 Enterprise/IOT 64 Bit, RAM - 16GB, OS - 480 GB SSD/SATA, Graphic Card - In-built Processor Graphics (GPU): Intel® HD Graphics 630 or Intel Q470 Processor, supporting 2 Monitors, 01 LAN 01GBPS, Audio IN & Out, USB3.0, Keyboard and Mouse, associated cables etc complete. Approved Makes : Pelco / Avigilon / Axis / Allgovision / Dell / HP	6	each	194888	1169328
469	MR	Supply , Installation , Testing and commissioning of Surveillance Garde 16TB SATA Hard Disk for above VMRs, including fixing accessories and cable termination with required, complete in all respect as per instruction of engineer in-charge. Recording shall be calculated at 2MP, 25fps for 30 days. Approved Makes: WD / Segate /Toshiba / HP	19	each	54735	1039965
470	MR	Supply, Installation, Testing and Commissioning of 15 Mtr. HDMI Cable. Approved Makes: Aten / Kramer / Extron / BlueRigger	6	each	12440	74640
TOTAL OF SH - IX						10368110
Sub Head - X - LIFTS						
471	13.1.AH	SITC of 13 Passenger, Ground plus 5 upper floors with Rated speed of 1.0 m/sec.-Location : SAC Block (B+G+4) with Machine Room Less-(C) With General PLUS ADDITIONAL SPECIAL FEATURES attached herewith. Prem. Cat.	2	each	2096662	4193324
472	13.1.Anc	SITC of 13 Passenger, Ground plus 14 upper floors with Rated speed of 2.0 / 2.5 m/sec.-Location : Hostel Building with Machine Room Less-(B) With General PLUS ADDITIONAL SPECIAL FEATURES attached herewith. Prem. Cat.	5	each	3169916	15849580
473	13.1.BZ	SITC of 26 passengers . Ground plus 14 upper floors with Rated Speed of 2.0 / 2.5 m/sec with micro price/PLC control and ACVVVF drive-Location : Hostel Building with Machine Room Less-(C) With General PLUS ADDITIONAL SPECIAL FEATURES attached herewith. Prem. Cat.	1	each	4983665	4983665
Total of SH - X						25026569
SUB HEAD-XI-SUB-STATION EQUIPMENT						



474	MR	Supplying, Installation, Testing & Commissioning including design, manufacture and testing at works of indoor type floor mounted metal clad, 11 KV VCB panel board totally enclosed & fully interlocked, Horizontal drawout, Horizontal isolation type breaker as per IEC-62271-100/200, as amended up to date and additional specifications, having capacities as mentioned below, single break, trip free mechanism, motor charged and manually/electrically closing breaker suitable for use on 11 KV,3 Phase, 50Hz A.C. supply with STC 26.3 KA for 3 Sec (1500 MVA). Internal Arc for AFLR 26.3kA at rated voltage for 1s at individual compartments i.e. Busbar, VCB and cable compartment. complete with self contained, fully interlocked, rack in and rack out mechanism, air insulated and encapsulated copper bus bars of 800 Amps capacity, breaker featured with mechanical ON/OFF indicator with hand trip device, spring release coil, shunt trip coil and auxiliary switch of 4 NO + 4 NC and equipped with following switch gears and accessories. SITC of 11 KV HT Switchboard of 5 panels, 2 I/C & 3 O/G panels as above and as per specifications shall be with all accessories, interconnections, internal wiring, labels etc. complete as required.	1	Set	2747198	2747198
475	10-4-9.	SITC of SF6 gas insulated Single VCB/Isolator: Sheet steel enclosed, free standing, Outdoor mounted, 11 kV, 630A, 21kA/3s, 1 WAY Non - extensible SF6 gas insulated VCB, consisting of One no. direct connection of Incoming supply cable upto 300sq mm and one no. VCB(Manually charging & closing) in series with LBS between VCB and Transformer, Self Powered Relay 3 O/C +1 E/F Relay type CSPR-V5 , mechanical ON/OFF indicator, trip coil , Manual Close & Trip PB, live cable indicator, mechanical interlocks, pad locking facility, SF6 gas manometer, cable boots, 3 nos. CTs with Ratio -/1A, CI: 5P10, 2.5 VA for protection	2	Each	169493	338986
476	MR	Design, manufacturer, Supply, installation, testing and commissioning of Oil type transformer ONAN cooling Type 2500 KVA 11/0.433 KV, 3 phase, 50 Hz, Dyn11 vector group, double wound copper , class A insulation, indoor type Transformer with approximately 6.25% impedance subject to tolerance as per IS, ON Load tap changer, operation on HV side in steps of $\pm 5\%$ to -7.5% , @ 1.25%, having cable end boxes on HV side suitable for 3x300 Sqmm XLPE cable of 11 KV (E) grade and 4000 Amp TPN Sandwich Bus Duct arrangement on LV side with neutral brought out separately, Marshelling Boxes and other safety equipments etc. & suitable for ambient 50 °C temprature. All Relays, Contacts & CT Terminal to be wired upto marshelling Box suitably mounted on M.S.channel i/c supplying and grouting of suitable M.S. Channel with all accessories and confirming to Latest IS/ IS:1180 Part-1/2026 & complete in all respects as required at site. Transformer losses shall be as per Latest ECBC Norms.	2	each	3902454	7804908



477	MR	<p>Design, manufacture, testing at works, supply, installation, testing and commissioning of MODBUS ready SCADA Compatible 415V Main LT Panel Tested Assembly – TTA, CPRI /Independent international test house tested for all the tests as per IEC61439-1 & 2 and internal arc tests as per IEC 61641, 50kA for 0.3 SEC. Copies of the test reports & certificates shall be submitted with the tender.</p> <p>INCOMING FROM TRANSFORMER (2500 KVA)-2 No. 4000A, 4-pole EDO type ACB having release, Bus Coupler-1 No. 4000A, 4-pole EDO type ACB having microprocessor release, Bus Bar-Set of 4000 Amps rating TPN copper Bus Bars of suitable length, Outgoing Panels-Bus Section - A -2000 amp, 50KA FP ACB - EDO-1 Nos., 1600 amp, 50KA FP ACB - EDO-2 Nos., 1000 amp, 50KA FP ACB - EDO-1 Nos., 800 amp, 50KA FP ACB - EDO-1 Nos., 630 amp, 50KA FP MCCB -2 Nos., 400 amp, 36 KA FP MCCB -2 Nos., 200 amp, 36 KA FP MCCB -1 Nos. Bus Section - B- 2000 amp, 50KA FP ACB - EDO-1 Nos., 1600 amp, 50KA FP ACB - EDO-2 Nos., 1000 amp, 50KA FP ACB - EDO-2 Nos., 800 amp, 50KA FP ACB - EDO-1 Nos., 630 amp, 50KA FP MCCB -2 Nos., 250 amp, 36 KA FP MCCB -1 Nos., 200 amp, 36 KA FP MCCB -2 Nos. Metering & Indication for each outgoing feeders.96 x 96 sq.mm display module mounted on panel door directly connected from release to display all parameters of ACB/MCCB.</p>	1	Set	10668682	10668682
478	MR	<p>Design, manufacture, testing at works, supply ,installation, testing and commissioning of MODBUS ready SCADA Compatible 415V EMERGENCY PANEL (DG Supply Panel) in ESS, Tested Assembly – TTA, CPRI /Independent international test house tested for all the tests as per IEC61439-1 & 2 and internal arc tests as per IEC 61641, 50kA for 0.3 SEC. Copies of the test reports & certificates shall be submitted with the tender. LT Panel shall also be tested of design as per Seismic Zone 4 of IEC 60068-3-3 requires compliance against 0.4g acceleration. Panel shall be rated for Impulse withstand capability as per IEC-61439. For operator safety IP2 X (touch proof) protection to be available even after opening the feeder compartment door. INCOMING FROM AMF Panel-1 No.1000A, 4-pole EDO type motorized ACB having release, Set of 1000 Amps rating TPN Copper Bus Bars of suitable length shall be provided for entire length of panel board., Outgoing Panels-630 amp, 50KA FP MCCB -1 Nos., 400 amp, 50KA FP MCCB -1 Nos., 315 amp, 50KA FP MCCB -1 Nos., 250 amp, 36KA FP MCCB -1 Nos., 200 amp, 36KA FP MCCB -1 Nos., 100 amp, 36KA FP MCCB -6 Nos., 63 amp, 36KA FP MCCB -3 Nos., Metering & Indication for each outgoing feeders-96 x 96 sq.mm display module mounted on panel door directly connected from release to display all parameters of ACB/MCCB.</p>	1	Set	1674266	1674266



479	MR	Supply, Installation, testing and Commissioning of Automatic Power Factor Correction Panel (800 KVAR), Design, supply, installation, testing & commissioning of cubicle type semi compartmentalized floor mounted free standing type with separation system (as per IS:16636:2017 or IEC 61921,IEC 61439 Part I & II) INCOMMER-1 No. of 2000A Amps. 415 Volts 4P. Type ACB. of 50KA with overload, S/C, O/C and earth fault protection., 2000-Amps (neutral equal size) 3 phase 4 wire 415 volts 50 HZ aluminium bus bars with colour coded PVC heat shrinkable sleeves. OUTGOING-APFC 800 Kvar-1Nos. The Solution should comprise (800 kVAr including Capacitor Duty Contactor,APFC relay & Detuned filter reactors 14%.The capacitor bank should have the following step ratings:6x100+3x50+1X25+1X20+1x5 Capacitor shall be Super Heavy Duty MPP type low loss as per standards with overcurrent capability of 2xI _r and Inrush current capability of 500xI _r . Cap Bank -100 KVAR - 6 Nos. ,Cap Bank -50 KVAR - 3 Nos. ,Cap Bank -25 KVAR - 1 Nos. ,Cap Bank -20 KVAR - 1 Nos. ,Cap Bank -5 KVAR - 1 Nos.	2	Set	2082212	4164424
480	10.1.2	Providing & erecting sandwiched type bus duct having following specification: sandwich type busbar for use as feeder busbar for interconnection between separate electrical equipment / load centers and for use as plug in busbar risers. The busbar shall be suitable for operation in a 690V / 1000V system with frequency of 50 Hz system can be either earthed or unearthed, impulse voltage should be 12 KV; Standard (A) Aluminium Bus-(j) 4000 A, Capacity (TR to LT PANEL)	60	RM	33348	2000880
481	MR	Supply of following size of 11 KV XLPE insulated aluminium conductor earthed and armoured cable conforming to IS 7098 complete as required.-3 Core, 300 sq.mm (from HT Panel to Transformer)	80	RM	2473	197840
482	MR	Supply of following size of 11 KV XLPE insulated aluminium conductor earthed and armoured cable conforming to IS 7098 complete as required.-3 Core, 400 sq.mm (From HT Meter to HT Panel)	100	RM	3086	308600
483	MR	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.- Above 120 sq. mm and upto 400 sq. mm	150	mtr	371	55650
484	MR	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.-Above 120 sq. mm and upto 400 sq. mm	40	mtr	120	4800
485	MR	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 kV grade as required.- 300/400 sq. mm	6	each	14508	87048
486	MR	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 kV grade as required.-300 sq. mm	2	each	37404	74808

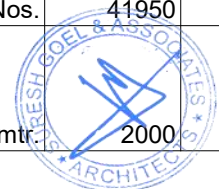


487	4.4.4	Providing & erecting XLPE (IS:7098(I))-BB ISI armoured cable multistrand / solid copper conductor for 1.1 KV to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables-(A) 4 core, 2.5 sq.mm	200	RM	267	53400
488	MR	Supplying, Fixing with End Terminations of 400 sqmm single core 1.1 KV XLPE insulated copper conductor earthed and armoured cable conforming to IS 7098 complete as required.-Single Core, 400 sq.mm	440	RM	7199	3167560
489	4.3.3.a	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(j) 3.5 Core, 300 sq.mm. (150 sq. mm 0.5 core)	2370	RM	1387	3287190
490	4.3.3.b	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(i) 3.5 Core, 240 sq.mm.(120 sq. mm 0.5 core)	100	RM	1150	115000
491	4.3.3.c	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(H)3.5 Core, 185 sq.mm.(95 sq. mm 0.5 core)	840	RM	891	748440
492	4.3.3.d	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(f) 3.5 Core, 120 sq.mm. (70 sq. mm 0.5 core)	210	RM	529	111090
493	4.3.3.e	Providing and erecting XLPE (IS:7098) - BB ISI armoured cable multistrand aluminium conductor for 1.1 KV . To be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.-(e)3.5 Core, 95 sq.mm.(50 sq. mm 0.5 core)	150	RM	480	72000
494	4.6.3.a	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(I) 3.5 Core, 300 sq.mm.	16	each	278	4448
495	4.6.3.b	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(H) 3½ X 240 sq. mm	2	each	245	490
496	4.6.3.c	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(G) 3.5 Core, 185 sq.mm.	4	each	236	944
497	4.6.3.d	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(E) 3.5 Core, 120 sq.mm	2	each	139	278
498	4.6.3.e	Providing & fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(D) 3.5 Core, 95 sq.mm.	2	each	130	260
499	4.7.1.a	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly climped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.-(K) 300 sq.mm	16	each	98	1568

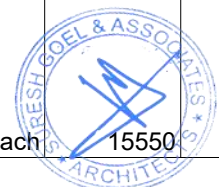
500	4.7.1.b	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly clipped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.- (J) 240 sq. mm	2	each	85	170
501	4.7.1.c	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly clipped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.- (I) 185 sq. mm	4	each	80	320
502	4.7.1.d	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly clipped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.- (G) 120 sq. mm	2	each	45	90
503	4.7.1.e	Solder less crimping type Aluminium lugs confirming to IS suitable for cable of following size evenly clipped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.- (F) 95 sq. mm	2	each	40	80
504	4.11.1.a	Providing & fixing approved make Perforated C type Cable tray, made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062 / 1079 and shall be coated with hot dip galvanizing as per IS 2629/4759 with max 17.5% perforation with coupler plate / fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support included) as per specification and as per instruction of Engineer In charge.-(5) 300 mm X 50 mm X 2.0 mm thick	250	RM	616	154000
505	4.11.1.b	Providing & fixing approved make Perforated C type Cable tray, made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062 / 1079 and shall be coated with hot dip galvanizing as per IS 2629/4759 with max 17.5% perforation with coupler plate / fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support included) as per specification and as per instruction of Engineer In charge.-(6) 450 mm X 50 mm X 2.0 mm thick	50	RM	794	39700
506	4.11.1.c	Providing & fixing approved make Perforated C type Cable tray, made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062 / 1079 and shall be coated with hot dip galvanizing as per IS 2629/4759 with max 17.5% perforation with coupler plate / fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support included) as per specification and as per instruction of Engineer In charge.-(7) 600 mm X 50 mm X 2.0 mm thick	50	RM	997	49850
507	4.5.7.a	Providing & laying RCC Hume pipe for cables to be laid at 90 cm below ground across the road crossing on or floor with necessary material in an approved manner and making the ground as per original.-(F) 100 mm dia.	50	RM	224	11200
508	4.5.7.b	Providing & laying RCC Hume pipe for cables to be laid at 90 cm below ground across the road crossing on or floor with necessary material in an approved manner and making the ground as per original.-(D) 250 mm dia.	20	RM	293	5860
509	4.5.8.(c)	Providing & laying approved make ISI marked HDPE 6kg/cm ² (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6mtr.-63 mm inner dia For Fiber & Power cables	1000	RM	247	247000



510	4.5.8.(F)	Providing & laying approved make ISI marked HDPE 6kg/cm ² (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6mtr.-110 mm inner dia For Fiber & Power cables	2500	RM	725	1812500
511	10.2.2	Providing pair of Rubber hand gloves suitable for working on 11 KV/22 KV supply.	2	Pair	212	424
512	10.2.1	Providing & fixing printed instruction chart both in English & Gujarati and duly framed with front glasses for treatment of person suffering from Electric shock with minimum 50"diagonally size.	2	Nos	129	258
513	3.13.2	Providing & erecting metallic vitrified danger notice board as per language suggested by Engineer Incharge for HIGH VOLTAGE installation to be erected as per IS-2551.	2	Nos	81	162
514	3.13.1	Providing & erecting metallic vitrified danger notice board as per language suggested by Engineer Incharge for MEDIUM VOLTAGE installation to be erected as per IS-2551.	2	Nos	69	138
515	10.2.27	Supplying & erecting ABC power type Ceasefire type fire extinguisher as per IS 13849 or 1 Kg capacity with necessary clamp for erection on wall.	4	Nos	840	3360
516	10.2.26.A	Supplying & erecting Carbon dioxide(CO ₂) fire extinguisher user of 4.5 kg capacity with necessary clamps made from 50 x 6 mm MS flat with nut & bolts grouted in wall complete.	4	Nos	6526	26104
517	10.2.6	Supplying & erecting floor mounting stand for keeing four nos. of Fire buckets comprising 1500 mm in length, 900 mm height frame made out of 30 mm x 30 mm x 4 mm angle iron with cross supports for legs, welded with 4 hooks and duly painted with one coat of red lead and two coats of approved enamelled silver paint.	1	each	933	933
518	10.2.5	Supplying Fire bucket round bottom of 9 litre capacity made out of 24 gauge GI sheet with extra handle at bottom duly painted white inside and Red outside with Fire mark, filled with dry sand and kept on existing stand provided or hung on wall hook.	4	Nos	212	848
519	10.2.4	Supplying stand First aid box with Anti septic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (band -aid) adhesive tape for medicinal user, scissors, antiseptic solution (Savlon or similar) etc. (all above contents shall be of standard make)	1	Nos	297	297
520	10.2.3.a	Supplying Rubber matting of following thicknes as per IS : 15652 / IEC -61111-(b) 4 mm	2	sq.m	1017	2034
521	10.2.3.b	Supplying Rubber matting of following thicknes as per IS : 15652 / IEC -61111-(c) 12 mm	2	sq.m	3051	6102
522	MR	Supply, installation, testing and commissioning of 10LB. Novec-1230 DLP Assembly with automatic valve mounted on DOT/PESO approved cylinder, push in connector for tube, Mounting bracket etc.	2	Nos.	77650	155300
523	MR	Supply, installation, testing and commissioning of 5LB. Novec-1230 DLP Assembly with automatic valve mounted on DOT/PESO approved cylinder, push in connector for tube, Mounting bracket etc.	2	Nos.	63900	127800
524	MR	Supplying, installation, testing and commissioning of 2.5LB. Novec-1230 DLP Assembly with automatic valve mounted on DOT/PESO approved cylinder, push in connector for tube, Mounting bracket etc.	4	Nos.	41950	167800
525	MR	Supply, installation, testing and commissioning of UL listed Linear Pneumatic Heat Detection Tube (operating temp at 120 Degree Centigrade, Colour-Red) For Automatic Fire Detection & Suppression.	300	mtr.	2000	600000



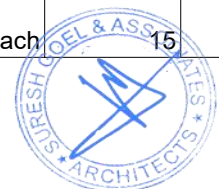
526	MR	Supply, installation, testing and commissioning of tee connection.	8	Nos.	2800	22400
527	MR	Supply, installation, testing and commissioning of elbow connection.	8	Nos.	2800	22400
528	MR	Supply, installation, testing and commissioning of end of line adapter with Pressure Gauge For charging & monitoring.	6	Nos.	4250	25500
529	MR	Supply, installation, testing and commissioning of Low pressure switch for monitoring system activation.	8	Nos.	9500	76000
530	MR	Supply, installation, testing and commissioning of Master control Unit with LED Flasher, Electronic Hooter, LED Indicator with provision for Integration with Fire Alarm Control Panel complete as required.	8	Nos.	8750	70000
531	MR	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	16	each	12355	197686
532	3-14-5	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG.	1455	kg	77	112053
533	3.14.3	Providing and erecting required size Copper strip for earthing of H.T, OCB/ACB/Transformer LT panel board, motors etc. using copper clamp.	275	kg	787	216425
Total of Sub Head-XI						4184552
SUB HEAD-XII-EXTERNAL LIGHTING						
534	6.1.4.a	Supplying & erecting approved make Octagonal pole made from HR Sheet steel. The pole should be made as per IS and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral junction box consist of terminal plate of min 6 mm Hylam sheet, standard profile 35mm x 7.5 mm Din-Rail for MCB mounting, stud type terminal and arrangement for cable termination to be erected on foundation as per details given by manufacturer considering site requirement.-(D) 6 Mtr. Long 70 mm Top X 135 mm bottom dia, 3 mm thickness with 200mmX200mmX12mm base plate, 4-M20 Bolts and	47	each	8111	381217
535	6.1.4.b	Supplying & erecting approved make Octagonal pole made from HR Sheet steel. The pole should be made as per IS and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral junction box consist of terminal plate of min 6 mm Hylam sheet, standard profile 35mm x 7.5 mm Din-Rail for MCB mounting, stud type terminal and arrangement for cable termination to be erected on foundation as per details given by manufacturer considering site requirement.-(G) 8 Mtr. Long 70 mm Top X 155 mm bottom dia, 3 mm thickness with 260mmX260mmX16mm base plate, 4-M20 Bolts and 600mm long J-Bolt.	8	each	13872	110976
536	6.1.4.c	Supplying & erecting approved make Octagonal pole made from HR Sheet steel. The pole should be made as per IS and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral junction box consist of terminal plate of min 6 mm Hylam sheet, standard profile 35mm x 7.5 mm Din-Rail for MCB mounting, stud type terminal and arrangement for cable termination to be erected on foundation as per details given by manufacturer considering site requirement.-(H) 9 Mtr. Long 70 mm Top X 155 mm bottom dia, 3 mm thickness with 260mmX260mmX16mm base plate, 4-M24 Bolts and 750mm long J-Bolt.	48	each	15550	746400



537	6.1.1	Supplying & erecting Galvanized M.S. pipe post "B" class 88.9 mm O.D. 4 mtr long duly painted with two coats of aluminium paint complete with metallic base plate of 300mm X 300 mm x 4 mm thick for using as a compound light pole with approx. weight 32 Kg.	45	each	3194	143730
538	6.3.4	Providing 1:2:4 cement concrete foundation & 70 % PCC from bottom including excavation for the pole of size 45 X 45 X 100 cm, deep in below ground level with plinth of 45 cm X 45 cm (or 45 cm dia X 45 cm) high upper ground level with necessary curing and finishing in approved manner. (for 4 & 6 mtr pole)	148	each	801	118548
539	6.4.3+3.10.1(B)	Supplying & erecting approved make SMC press moulded composite FRP loop in, loop out approx 2 mm thick box complete with bakelite connector strip 5 way (3P+N+E) DIN rail for mounting mob & hanged doors as per requirement having locking arrangement with mounting clamp with nuts, bolts & washers suitable for erection on pole with cable clamp & earth built of following size of box. including 6A SP MCB 10 KA rating Cat-III).-(g) 250mm X 220mm 135mm (deep)	148	each	1222	180856
540	6-5-2-b.a	Providing and erecting Street Light pole bracket comprising main B Class GI pipe of 4.2 cm/require outside dia. complete with suitable B Class G.I. sleeve tubing of approx. 45cms.length and suitable for 76.5 mm /80mm / required size of pole top having sufficient fasteners for fixing the brackets and having spread of 1.5.mtr. length with 110 deg.with vertical plane & suitable welded stays, reducer and with check nuts complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms. (For 9 Mtr Pole)-[A] Single Arm Bracket 1.5 Mtr	39	each	677	26403
541	6-5-2-b.b	Providing and erecting Street Light pole bracket comprising main B Class GI pipe of 4.2 cm/require outside dia. complete with suitable B Class G.I. sleeve tubing of approx. 45cms.length and suitable for 76.5 mm /80mm / required size of pole top having sufficient fasteners for fixing the brackets and having spread of 1.5.mtr. length with 110 deg.with vertical plane & suitable welded stays, reducer and with check nuts complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms. (For 9 Mtr Pole)-[B] Double Arm Bracket 1.5 Mtr	9	each	993	8937
542	6-5-3-a.a	Providing and erecting street light pole bracket comprising main B Class MS pipe of 4.2 cm/require outside dia. complete with suitable B Class M.S. sleeve tubing of approx. 45cms.length and suitable for 76.5 mm / 80mm. / require size pole top having sufficient fasteners for fixing the brackets and having spread of 1 mtr. length with suitable rise as per site condition & suitable welded stiffener reducer and nipple with check nut complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms.-[A] Single Arm Bracket 1 Mtr	36	each	556	20016



543	6-5-3-a.b	Providing and erecting street light pole bracket comprising main B Class MS pipe of 4.2 cm/require outside dia. complete with suitable B Class M.S. sleeve tubing of approx. 45cms.length and suitable for 76.5 mm / 80mm. / require size pole top having sufficient fasteners for fixing the brackets and having spread of 1 mtr. length with suitable rise as per site condition & suitable welded stiffener reducer and nipple with check nut complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms.-[B] Double Arm Bracket 1 Mtr	11	each	751	8261
544	2.16.2	Supplying & erecting LED Street light / Flood light fittings with high power white LEDs wattage of 1 watt and above assembled on single MCPCB efficiency more than 130 lm/w and corrosion free high pressure die cast aluminium housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics / lenses with company mark / name engraved or embossed 120 to 300 V power factor more than 0.95, THD < 10% CCT 3000 K to 5700 K, uniformity ratio >0.45, luminaire efficiency >100 lumens/watt, LED driver efficacy >85%. CREE/OSRAM/PHILIPS Lumileds/ NICHIA /SEOUL/ Bridgelux (USA) make LED used for luminaire. (fittings required LM-79 & LM-80 certificates) Note: Below description have shown ranges of wattage, capacity of LED fittings. the Engineer Incharge may select any wattage capacity between the ranges shown.)-Post Top Lantern LED fitting comprises of Copper dust finish cast aluminium spigot and spun aluminium canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting driver and accessories wired upto terminal block.IP 65 (Including Gate Light)-(b) 32-40 W-Cat - III	16	each	4772	76352
545	2.16.2.(B)	Flood Light (IP-65) surge-4 KV, light must have 440 VAC line supply protection. It should withstand 48 hours for 440 VAC line supply-(vii) above 200 to 250 watts-Cat-III	32	each	10711	342752
546	2.16.2.(A)	Street Light (IP-65), surge protection-4 KV integral and 10 KV non Integral, light must have 440 V AC line supply protection. It should withstand 48 hours for 440 v AC line supply.(iii) Above 60 to 90 watts-Cat -III	115	each	5917	680455
547	2.16.3.C	(c) LED Bollard fittings of minimum height 1000 mm & dia.100mm having polycarbonate clear/milky diffuser mounted on 3mm thick aluminium finished powder coated pipe with base plate 160x160mm with erection by M8x75mm fastner with required RCC foundation.IP65 for 9 to 20 watt and above ,surge-4kv cat-III	18	each	4417	79506
548	4-3-5.	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables-(A) 4 core 16 Sq. mm	2500	metre	150	375000
549	4.6.1	Providing & fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with outgoing tails insulating tape etc. for following size of cables.-(d) 2 to 4 core 16 sq. mm	296	each	47	13912
550	4.7.1	Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly climped with high pressure tool & connected to switchgear terminals with brass / cadmium plated nut bolts in an approved manner.-(c) 16/25 sq. mm	296	each	15	4440



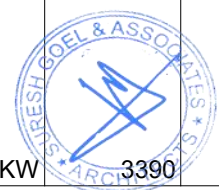
551	4.5.8	Providing & laying approved make ISI marked HDPE 6kg/cm ² (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6mtr.-63 mm dia (OD-63 mm & ID-51 mm nominal) For Fiber & Power cables	3500	RM	247	864500
552	4.5.7	Providing & laying RCC Hume pipe for cables to be laid at 90 cm below ground across the road crossing on or floor with necessary material in an approved manner and making the ground as per original.-150 mm dia	20	mtr	261	5220
553	3-14-12	Supplying & erecting funnel type earthing having earth plate of following size burred in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification -(B) With 45 x 45 x 0.35 cms. C.I. earth plate	4	each	2543	10172
554	3.14.5	Providing and erecting Hot deep Galvanized Iron strip wire 8 to 16 SWG.	912	kg	77	70242
555	2-20-1.	Providing and erecting Three Phase IoT GSM/GPRS Central Control & Monitoring System (CCMS) Panel for Streetlights Smart Feeder Panel with 3 Phase GSM/GPRS CCMS Streetlight Controller with LCD Display (1 Nos.). Streetlight Controller with Individual each Phase Control (Energy Saving feature) and Spare relay facility. Door Switch for unauthorized access & tamper detection. Accelerometer for panel movement detection & tamper alerts. Suitable amount of Wires, Connectors, Terminal Blocks included in Panel. 16/18 gauge M S with industrial exterior powder coated PP with seven tank process RAL 7035 All weather-proof Enclosure Panel having IP65 rating. Waterproof Glands & Grounding Stand included. Dedicated IoT communication GSM/GPRS SIM Card (with minimum 5 years of recharge) for Wireless Communication with CCMS Web Dashboard. 5 Years Data Hosting & Server Charges to be included with CCMS Web Dashboard. Load status, Live analytics, Energy Meter monitoring (Parameters such as kW, kWh, PF, I, V), comparative analytics, reports generation facility. Fault detection on web dashboard. GIS Mapping of CCMS Panel on Web Dashboard. Secured MQTT Communication for Cloud. Includes Android & iOS Mobile Application. Local communication facility via Mobile Application in case of GPRS connectivity failure.	1	each	59323	59323
Total of Sub Head-XII						4327218
SUB HEAD-XIII-DG SET						



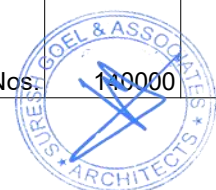
556	MR	SITC of 625 KVA 'Silent Type' Diesel Generating sets having PCC 3.3 controller or better alongwith having Prime Power Rating at 1500RPM, 0.8 lagging power factor at 415V suitable for 50Hz, 3 Phase system & for 0.85 Load Factor and consisting of following: Diesel engine 4 stroke water cooled, electric start, of suitable BHP at 1500RPM suitable for above output of alternator at 40 degree C, 50%RH & at 1000 meter MSL and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% overloading for 1 hour after 12 hour of continuous operation. The engine will be fitted complete with all accessories., Engine mounted Instrument Panel fitted with and having digital display. with Base Frame and Foundation, Daily service fuel tank of 990 liters capacity fabricated out of 3mm thick M.S. sheet complete with all standard accessories and fuel piping between fuel tank and diesel engine with M.S. class 'C' pipes of suitable dia. Dry Exhaust main fold with hospital exhaust silencer and catalytic converter.24 volts DC Starting sytem, Accoustic and weatherproof enclosure with arrangement , Supply and fixing exhaust gas piping of suitable Dia welded black M.S. 'B' Class pipe, confirming to IS:3589 cut to required length and insulated with necessary bends, support and clamps, anti vibration mounting, insulation exhaust system and aluminium	1	Set	6250334	6250334
557	MR	Providing & erecting approved make AMF control panel suitable for 625 KVA of 3 phase, 415 V, 50 cycles, A.C. diesel generating set complete of scope as detailed below: 1) Power module: A pair of electromechanically interlocked contactors (for mains & generator) Overload relay for generator contactor neutral contactor for mains and generator power socket for connections. 2) Control and metering module: Line voltage monitor, Generator voltage monitor Ammeter 3 items attempt start facility, Air circuit breakers / MCB / MCCB of suitable rating for Auto/Manual operation. Auto/manual switch. Emergency stop push buttons. Manual start push button frequency meter. Engine hour meter, two earthing studs .3) Protection module: The engine shutdown in the unlikely event of Low lube oil pressure High cylinder head temperature. V belt failure. 4) Indicators with alarm Load on generator. 5) Indicators Load on mains Engine fails to start . Emergency stop battery charger.	1	Set	314300	314300
		Total of Sub Head-XIII				6564634
		SUB HEAD - XIV - SOLAR POWER GENERATION				



558	14.1.1.a	Supply, Installation, Testing & Commissioning of following size of Grid Tied Solar Power Plant with Solar Panels (ALMM approved): Frame Material : Anodized Aluminum alloy Frame With Twin Wall Profile, Front Cover : High Transmission Low-Iron Tempered Glass (AR Coated), High efficiency and positive power tolerance Pmax: 0/+5, Module Efficiency should be approx. 18%-21%, Normal operating temperature 45°C, Junction Box with Waterproof IP67 & MC4 Compatible and Enclosed with Bypass diodes, 100% Electroluminescence test to ensure error free Modules, Thep. temp. co-efficient of the PV module shall equal or better than -0.45%/degree C. Solar PV modules of minimum fill factor 75% to be used. Unit Production:- 4 to 5 Unit /kw /day (Actual)(1Year Avg) With 10 year Product warranty and 25 year Linear Power Warranty., Solar Inverter: MPPT Range: 80-1000 V, Max efficiency: 97.5% - 98.9%, O/p Frequency: 50/60Hz, Operating Altitude (m) ≤4000, O/p Power Factor: ~1, O/P THDi: <3%, Operating Temperature Range: -25~60 ° C, Anti-islanding Protection: -(D) Grid Tied Solar Power System: 26 - 50 kW (3 - phase)	50	Per KW	41739	2086950
559	14.1.1.b	Supply, Installation, Testing & Commissioning of following size of Grid Tied Solar Power Plant with Solar Panels (ALMM approved): Frame Material : Anodized Aluminum alloy Frame With Twin Wall Profile, Front Cover : High Transmission Low-Iron Tempered Glass (AR Coated), High efficiency and positive power tolerance Pmax: 0/+5, Module Efficiency should be approx. 18%-21%, Normal operating temperature 45°C, Junction Box with Waterproof IP67 & MC4 Compatible and Enclosed with Bypass diodes, 100% Electroluminescence test to ensure error free Modules, Thep. temp. co-efficient of the PV module shall equal or better than -0.45%/degree C. Solar PV modules of minimum fill factor 75% to be used. Unit Production:- 4 to 5 Unit /kw /day (Actual)(1Year Avg) With 10 year Product warranty and 25 year Linear Power Warranty., Solar Inverter: MPPT Range: 80-1000 V, Max efficiency: 97.5% - 98.9%, O/p Frequency: 50/60Hz, Operating Altitude (m) ≤4000, O/p Power Factor: ~1, O/P THDi: <3%, Operating Temperature Range: -25~60 ° C, Anti-islanding Protection: -(F) Grid Tied Solar Power System: 101 - 250 kW (3 - phase)	210	Per KW	39408	8275680
560	14.10.1.a	The all inclusive comprehensive annual maintenance contract cost covers yearly maintenance of solar Pv Modules, Inverter, wiring, earthing, switchgears, etc with material and labour cost including preventive maintenance. The cost covers entire installation. AMC also includes monthly site visit and inspection of project with submission of inspection and solar generation report. All parts should be replaced/ repaired if found faulty within specified time. Agency has to provide necessary licencing work for warranty, power, Bidirectional meter etc -(C) 21KW-50KW System	50	PER KW	4238	211900
561	14.10.1.b	The all inclusive comprehensive annual maintenance contract cost covers yearly maintenance of solar Pv Modules, Inverter, wiring, earthing, switchgears, etc with material and labour cost including preventive maintenance. The cost covers entire installation. AMC also includes monthly site visit and inspection of project with submission of inspection and solar generation report. All parts should be replaced/ repaired if found faulty within specified time. Agency has to provide necessary licencing work for warranty, power, Bidirectional meter etc -(E) 101KW-200KW System	210	PER KW	3390	711900



		Total of Sub Head-XIV				11286430
		HVAC Work				
562	MR	Supply, Installation, Testing, supervision, & Commissioning of micro-processor controlled Water Cooled Screw Chiller each of min. 140 TR at following conditions, comprising of semi-hermetic mono/twin rotor screw compressors with automatic capacity control and direct driven motor, chiller shall be equipped with insulated shell and tube type flooded cooler with even pass arrangement, water cooled condenser with accessories and even pass arrangement. The chiller package shall also be complete with copper piping, factory charged R-134a refrigerant gas and system control wiring, incoming suitable electrical isolator complete with accessories as required, automatic & safety controls including electronic expansion valve. The chiller package shall be installed on a fabricated mild steel base frame factory assembled to form a compact assembly. Compressor motor shall be TERC type, class-F insulation suitable for operation on 415V+/- 10%, 50 Hz, 3 phase. - Min. 4,23,360 Kcal/Hr (140 TR) actual capacity. Water chilling machine as described above and at above mentioned operating	3	Nos	3413410	10240231
563		Supplying, installing, testing and commissioning of FRP Cooling tower of 5,08,800 K.CAL/Hr heat rejection capacity with FRP Water basin, PVC Filling with integral louvers and drift eliminators complete with hot water basin either fitted with spray nozzles or having self rotating sprinklers, statically and dynamically balanced axial flow type fan-direct driven or driven through reduction gear box with TEFC induction motor (EF1 efficiency) normal stater suitable for operation on 415 + 10% volts, 50 Hz. AC supply, suction screen, make-up quick fill arrangement, overflow and drain connections with necessary valves and suitable inspection SS ladder, access arrangement for cooling tower interior, cement concrete foundation, steel/masonry supporting structure, anti-vibration mountings etc. complete as per specifications and as reqd. The scope shall include suitable electrical isolator suitable for outdoor application near cooling towers. The Cooling tower should be CTI certified. Wet bulb approach less than 3.5°C, Flow Rate: 2120 LPM Water Temp. IN:36°C Water Temp. OUT:32°C	3	Nos.	336000	1008000
564	MR	Supply, erection, testing and commissioning of end suction / Vertical Inline Split Coupled centrifugal primary chilled water pump set capable of delivering- 1580 LPM of water against 12 mtr head each comprising of the following and complete with TEFC squirrel cage induction motor, efficiency IE3 with class 'F" insulation. 1450 rpm synchronous speed, operating on 415+ 10% volts, 3 phase, 50 Hz A.C. supply. pump shall have CI body, SS/Bronze impeller, spacer coupling and coupling guard. The scope also shall include following.19mm thick polyvinyl nitrile rubber insulation duly cladded between aluminium sheets of 0.5mm thickness and properly clamped to pump. 2 Nos. - 150 mm dia dial type pressure gauges,Mounting frame with antivibration pads,RCC/cement concrete foundation for the pump unit.	3	Nos.	140000	420000



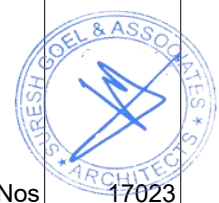
565	MR	Supply, erection, testing and commissioning of variable speed Secondary Chilled Water - end suction / Vertical in line Split Coupled centrifugal pumps - 3 Nos. (2 W + 1 SB) and 3 No. of pump mounted IP55 adjustable frequency drives with built in DC Choke for Variable speed Pumping with 1 nos Parallel pump controller from factory capable of delivering- 1580 LPM of water against 20 mtr head each, complete with TEFC induction motor with class 'F' insulation to operate on 415+ 10% volts, 3 phase, 50 Hz A.C supply for each pump and DPT (Sensors) Supplied by pump Manufacturers or Sensorless Controls in Pump. The shall also include the following -Electrical by pass stater for pumps,19mm thick polyviny nitrile rubber insulation duly cladded between aluminium sheets of 0.5mm thickness and properly clamped to pump. 2 Nos. - 150 mm dia dial type pressure gauges per pump, Mounting frame with antivibration pads,RCC/cement concrete foundation for the pump unit.	1	Lot	1007144	1007144
566		Supply, erection, testing and commissioning of Vertical Inline Split Coupled centrifugal Condenser water pump set capable of delivering- 2120 LPM of water against 30 mtr head each comprising of the following and complete with TEFC squirrel cage induction motor efficiency class IE3 with class "F" insulation. 1450 rpm synchronous speed, operating on 415+ 10% volts, 3 phase, 50 Hz A.C. supply. pump shall have CI body, SS/Bronze impeller, spacer coupling and coupling guard. The scope also shall include 2 Nos. - 150 mm dia dial type pressure gauges,Mounting frame with antivibration pads,RCC/cement concrete foundation for the pump unit.	3	Nos	254519	763556
567		Supplying, installing, testing and commissioning of factory built floor / ceiling suspended chilled water, double skin type air handling units made of 25mm thick panels consisting of G.I. casing of thickness 0.8 mm outside layer and 0.8 mm SS inside layer with polyurethane foam (PUF) Insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as detailed below, minimum 2 bend GSS/PVC eliminators, cooling coil section with aluminium finned copper tubes (tube thickness not less than 0.5mm) cooling coil , filter sections with 50mm thick metal viscous/washable synthetic type air pre-filters & fine, belt drive package with TEFC drive motor (EF1 efficiency) suitable for 415+10% volts, 50 Hz , 3 phase, A.C supply and scope includes AHU mounted VFD drive complete with incoming electrical isolator in enclosure , drain connections, stainless steel drain pan, thermometers and pressure gauges at the inlet and outlet of coil, necessary vibration isolation arrangement etc. complete as per specifications and of following capacities. - CS /AHU , 1500CFM 4RD	1	Nos	174771	174771



568	<p>Supplying, installing, testing and commissioning of factory built floor / ceiling suspended chilled water, double skin type air handling units made of 25mm thick panels consisting of G.I. casing of thickness 0.8 mm outside layer and 0.8 mm SS inside layer with polyurethane foam (PUF) Insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as detailed below, minimum 2 bend GSS/PVC eliminators, cooling coil section with aluminium finned copper tubes (tube thickness not less than 0.5mm) cooling coil , filter sections with 50mm thick metal viscous/washable synthetic type air pre-filters & fine, belt drive package with TEFC drive motor (EF1 efficiency) suitable for 415+10% volts, 50 Hz , 3 phase, A.C supply and scope includes AHU mounted VFD drive complete with incoming electrical isolator in enclosure , drain connections, stainless steel drain pan, thermometers and pressure gauges at the inlet and outlet of coil, necessary vibration isolation arrangement etc. complete as per specifications and of following capacities. - CS /AHU - 2000CFM 4RD</p>	2	Nos	188673	377346
569	<p>Supplying, installing, testing and commissioning of factory built floor / ceiling suspended chilled water, double skin type air handling units made of 25mm thick panels consisting of G.I. casing of thickness 0.8 mm outside layer and 0.8 mm SS inside layer with polyurethane foam (PUF) Insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as detailed below, minimum 2 bend GSS/PVC eliminators, cooling coil section with aluminium finned copper tubes (tube thickness not less than 0.5mm) cooling coil , filter sections with 50mm thick metal viscous/washable synthetic type air pre-filters & fine, belt drive package with TEFC drive motor (EF1 efficiency) suitable for 415+10% volts, 50 Hz , 3 phase, A.C supply and scope includes AHU mounted VFD drive complete with incoming electrical isolator in enclosure , drain connections, stainless steel drain pan, thermometers and pressure gauges at the inlet and outlet of coil, necessary vibration isolation arrangement etc. complete as per specifications and of following capacities. - FM AHU ,4000CFM 8RD (TFA)</p>	3	Nos	278329	834987



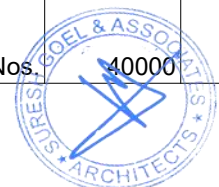
570	<p>Supplying, installing, testing and commissioning of factory built floor / ceiling suspended chilled water, double skin type air handling units made of 25mm thick panels consisting of G.I. casing of thickness 0.8 mm outside layer and 0.8 mm SS inside layer with polyurethane foam (PUF) Insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as detailed below, minimum 2 bend GSS/PVC eliminators, cooling coil section with aluminium finned copper tubes (tube thickness not less than 0.5mm) cooling coil , filter sections with 50mm thick metal viscous/washable synthetic type air pre-filters & fine, belt drive package with TEFC drive motor (EF1 efficiency) suitable for 415+10% volts, 50 Hz , 3 phase, A.C supply and scope includes AHU mounted VFD drive complete with incoming electrical isolator in enclosure , drain connections, stainless steel drain pan, thermometers and pressure gauges at the inlet and outlet of coil, necessary vibration isolation arrangement etc. complete as per specifications and of following capacities.</p> <p>- FM AHU , 8000CFM 6RD (40mm thick panels , Suitable for outdoor application)</p>	2	Nos	492678	985356
571	<p>Supplying, installing, testing and commissioning of Ceiling mounted chilled water cassette units complete with pre-filter, low noise fan and motor with ON/OFF and 3 speed control and suitable for 1 phase, 230 + 6%V, 50 Hz electric supply wiring in conduit upto thermostat box, the unit shall be complete with electrical terminal strip chilled water copper tube and aluminium finned cooling coil, with stainless steel duly insulated main and auxiliary drain pan, Cordless Remote Controller, powder coated galvanized steel housing, drain pump, factory made Pre-fit set of ball valve with and without strainer, Thermostat & modulating valve, copper piping & connections, Electrical & cabling for proper connection from the 15 Amps outlet to connector box. The noise level at low speed shall be in the range of 38 to 42db & at high speed upto 45db. Noise levels are at a distance of 2M from the unit. The necessary supporting mechanism with GI suspension rods, GI channel, dash fasteners & vibration isolators to be included. The Cassette capacities shall be : - 1500CFM 3.6TR</p>	65	Nos	60499	3932435
572	<p>Supplying, installation, testing and commissioning of fan coil units having following capacities, ceiling/ wall mounted complete with copper tubes, 3 row deep chilled water cooling coils having aluminium fins and auxiliaries including ball valve set (one with strainer), insulation of drain pan, drain connections, blower, TEFC slow speed (3 speeds) squirrel cage induction motor suitable for operation on 230 volts, single phase, 50 Hz, A.C. supply, controls for fan coil units comprising solenoid valve, three speed selector switch, room thermostat with ON/ OFF switch, electrical wiring etc complete as required.- 600</p>	16	Nos	13760	220160
573	<p>Supplying, installation, testing and commissioning of fan coil units having following capacities, ceiling/ wall mounted complete with copper tubes, 3 row deep chilled water cooling coils having aluminium fins and auxiliaries including ball valve set (one with strainer), insulation of drain pan, drain connections, blower, TEFC slow speed (3 speeds) squirrel cage induction motor suitable for operation on 230 volts, single phase, 50 Hz, A.C. supply, controls for fan coil units comprising solenoid valve, three speed selector switch, room thermostat with ON/ OFF switch, electrical wiring etc complete as required. -800 CFM & 2 TR</p>	1	Nos	17023	17023



574		Supplying, installation, testing and commissioning of fan coil units having following capacities, ceiling/ wall mounted complete with copper tubes, 3 row deep chilled water cooling coils having aluminium fins and auxiliaries including ball valve set (one with strainer), insulation of drain pan, drain connections, blower, TEFC slow speed (3 speeds) squirrel cage induction motor suitable for operation on 230 volts, single phase, 50 Hz, A.C. supply, controls for fan coil units comprising solenoid valve, three speed selector switch, room thermostat with ON/ OFF switch, electrical wiring etc complete as required. - 1000 CFM & 2.5TR	1	Nos	20570	20570
575	16.11.4.4	Supplying, installation, testing and commissioning of following size electronic, self balancing, pressure independent dynamic balance valve with integrated 2 way modulating control valve in single body. The actuator shall be capable of accepting upto 10V DC & upto 20mA electrical signal and shall provide similar transduced feedback output to control system. Maximum close off pressure shall not be less than 6 Bar for upto 50mm valves & 7 Bar for 65mm & above. Valve should be have pressure rating of 25Bar minimum.The scope shall include thermostat and wiring for interconnection with 1.5 sq.mm copper conductor multicore armoured cable complete as required. 80 mm Ø	5	Nos	48912	244560
576	16.11.4.8	Supplying, installation, testing and commissioning of following size electronic, self balancing, pressure independent dynamic balance valve with integrated 2 way modulating control valve in single body. The actuator shall be capable of accepting upto 10V DC & upto 20mA electrical signal and shall provide similar transduced feedback output to control system. Maximum close off pressure shall not be less than 6 Bar for upto 50mm valves & 7 Bar for 65mm & above. Valve should be have pressure rating of 25Bar minimum.The scope shall include thermostat and wiring for interconnection with 1.5 sq.mm copper conductor multicore armoured cable complete as required. -32 mm Ø	2	Nos	12228	24456



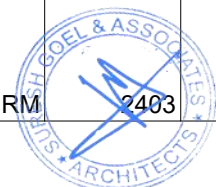
577	MR	Supply, Installation, Testing and commissioning of Dry scrubber for kitchen exhaust consisting of Electrostatic Precipitator, backward curve SISW centrifugal fan with elongated shaft having bearing & drive package out of exhaust air stream, TEFC induction motor, common channel base frame for Fan and motor, vibration isolation arrangement by means of spring type vibration isolators or turret mounts, fire retardant flexible canvass connections made out of canvass sleeve and the scope includes unit mounted stater panel in enclosure. The Electrostatic section shall be 90-95% in single pass as per DOP test method. Electrostatic Precipitator should be able to charge particles from 0.01 micron to 10 micron through solid state power supply. Collector cell shall be of permanent type and slide out facility for easy removal for cleaning. Operating voltage shall be 220+6 % volts, 50 Hz/1Ph, power consumption shall not exceeding 50 watts per unit upto 7500 Cfm. System should be fitted with interlock switch for safety. Velocity across the air cleaner shall not be more than 500 FPM. Scrubber shall be provided with pre-filters as required, pressure drop across ESP with pre filter should not be more than 12mm of Water gauge, . ESPs shall be provided with UV & Ozone Odours removers. ESP Modules shall have necessary provision in terms of flanges to facilitate Ducts/Plenum connections. The scope shall include stater panel for scrubber. The Scrubber shall be of following capacity. Air Qty. - 9000Cfm. Pressure Drop -	2	Nos	361434	722868
578	MR	Supply, installation, testing and commissioning of synthetic fill pad type air washer at 500 FPM velocity across pads, DIDW Class-I Backward curved centrifugal fan with TEFC weather proof motor (IE3 efficiency) of IP:55 protection suitable for 415 +10% Volts, 3 phase, 50 cycles power supply, mounted on a common base with metallistik vibration isolators, multi sheave pullies for fan and fan motor. The fan capacity shall be based on outlet velocity not exceeding 2000 FPM. The cooler shall be complete with 8" thick celdek fill, 3mm thick FRP steel reinforced tank, water pump 2 Nos. (1+1), cover pipe, distribution pipe, distribution pan, filters at air inlet, water piping, make up water with ball valve, drain and overflow connection, Eleminator etc. all housed in 16 G GSS casing mounted on vibration isolators complete in all respects as per specifications and drawings. scope includes unit mounted stater panel in enclosure. Capacity of coolers as under: - 7500 CFM External Static pressure: 15mm WG	1	Nos	159275	159275
579		Basement Exhaust - Car Parking Area - Supply, Installation, Testing and commissioning of AMCA certified long casing Tube / Vane Axial fans, Complete fan with casing, impeller with adjustable blade angles, wire guard, fire retardant flexible connection, necessary nut bolts and directly coupled with TEFC Sq. Cage induction motor suitable for 415V ± 10%, 50 Hz. 3 phase electric supply (Class H insulation). Fan & motor assembly shall be suitable for operation upto 250°C temp. for 2hrs fire/smoke conditions. Fan to have safety wire mesh screen on any exposed face. Fan Speed Not exceeding 1450 rpm. The Scope shall include electrical isolator & BMS compactable VFD capable of receiving signal from fire panel / CO sensor controller. Air Qty. 5,000 CFM, Static Pressure 25 mm Wg	8	Nos	40000	320000



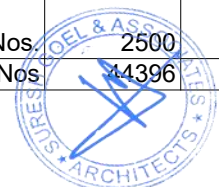
580		Basement Exhaust -(Lift well pr) - Supply, Installation, Testing and commissioning of AMCA certified long casing Tube / Vane Axial fans, Complete fan with casing, impeller with adjustable blade angles, wire guard, fire retardant flexible connection, necessary nut bolts and directly coupled with TEFC Sq. Cage induction motor suitable for 415V ± 10%, 50 Hz. 3 phase electric supply (Class H insulation). Fan & motor assembly shall be suitable for operation upto 250°C temp. for 2hrs fire/smoke conditions. Fan to have safety wire mesh screen on any exposed face. Fan Speed Not exceeding 1450 rpm. The Scope shall include electrical isolator & BMS compactable VFD capable of receiving signal from fire panel / CO sensor controller. Air Qty. 5,000 CFM, Static Pressure 25 mm Wg 6000cfm / 20mm WG st. pr	2	Nos	50000	100000
581		Basement Exhaust - (Basement Stair pr.) - Supply, Installation, Testing and commissioning of AMCA certified long casing Tube / Vane Axial fans, Complete fan with casing, impeller with adjustable blade angles, wire guard, fire retardant flexible connection, necessary nut bolts and directly coupled with TEFC Sq. Cage induction motor suitable for 415V ± 10%, 50 Hz. 3 phase electric supply (Class H insulation). Fan & motor assembly shall be suitable for operation upto 250°C temp. for 2hrs fire/smoke conditions. Fan to have safety wire mesh screen on any exposed face. Fan Speed Not exceeding 1450 rpm. The Scope shall include electrical isolator & BMS compactable VFD capable of receiving signal from fire panel / CO sensor controller. Air Qty. 5,000 CFM, Static Pressure 25 mm Wg -26000cfm / 30mm WG st. pr.	2	Nos	2300000	4600000
582	MR	Basement Exhaust - Car Parking Area Supply, Installation, Testing and commissioning of AMCA certified long casing Tube / Vane Axial fans Complete fan with tube casing, impeller with adjustable blade angles, wire guard, fire retardant flexible connection, necessary nut bolts and directly coupled with TEFC Sq.cage induction motor suitable for 415V ± 10%, 50 Hz. 3 phase electric supply (Class F insulation). Fan to have safety wire mesh screen on any exposed face. Fan Speed Not exceeding 1450 rpm. The Scope shall include electrical isolator & BMS compactable VFD capable of receiving signal from fire panel / CO sensor controller. -Air Qty. 4,000 CFM, Static Pressure 25 mm Wg	8	Nos.	32000	256000
583	MR	Supply, installation, testing and commissioning of Duct mounted in-line exhaust air fans comprising of Housing made out of heavy gauge galvanized sheets, DIDW forward curved centrifugal fan complete with internal rotor motor suitable for single phase, 230 volts, 50 Hz required for the exhaust. The fan shall be complete with speed regulator, external gravity louvers, thermal overload release for the motor as well as terminal box for termination of external power supply for the following Capacities. -900cfm 12mm	4	Nos	8307	33226



584	MR	Supply, installation, testing and commissioning of Duct mounted in-line exhaust air fans comprising of Housing made out of heavy gauge galvanized sheets, DIDW forward curved centrifugal fan complete with internal rotor motor suitable for single phase, 230 volts, 50 Hz required for the exhaust. The fan shall be complete with speed regulator, external gravity louvers, thermal overload release for the motor as well as terminal box for termination of external power supply for the following Capacities. -250cfm 8 mm	5	Nos	6390	31949
585	MR	Supply, installation, testing and commissioning of Duct mounted in-line exhaust air fans comprising of Housing made out of heavy gauge galvanized sheets, DIDW forward curved centrifugal fan complete with internal rotor motor suitable for single phase, 230 volts, 50 Hz required for the exhaust. The fan shall be complete with speed regulator, external gravity louvers, thermal overload release for the motor as well as terminal box for termination of external power supply for the following Capacities. -150cfm 8mm	16	Nos	4932	78918
586	MR	Supply, installation, testing and commissioning of Duct mounted in-line exhaust air fans comprising of Housing made out of heavy gauge galvanized sheets, DIDW forward curved centrifugal fan complete with internal rotor motor suitable for single phase, 230 volts, 50 Hz required for the exhaust. The fan shall be complete with speed regulator, external gravity louvers, thermal overload release for the motor as well as terminal box for termination of external power supply for the following Capacities. -100cfm 8mm	4	Nos	4932	19730
587	16.10.2	Supplying, fixing, testing and commissioning of condenser water pipes of following nominal bore size diameters, MS C Class as per IS: 3589, , and materials along with necessary clamps, vibration isolators, and fitting such as bends, tees etc. but excluding valves, strainer and gauges etc adequately supported on rigid supports etc as per specification and as required. -250 mm Dia	160	RM	5940	950429
588	16.10.3	Supplying, fixing, testing and commissioning of condenser water pipes of following nominal bore size diameters, MS C Class as per IS: 3589,, and materials along with necessary clamps, vibration isolators, and fitting such as bends, tees etc. but excluding valves, strainer and gauges etc adequately supported on rigid supports etc as per specification and as required. 200 mm Dia	160	RM	4934	789429
589	16.10.4	Supplying, fixing, testing and commissioning of condenser water pipes of following nominal bore size diameters, MS C Class as per IS : 1239 , and materials along with necessary clamps, vibration isolators, and fitting such as bends, tees etc. but excluding valves, strainer and gauges etc adequately supported on rigid supports etc as per specification and as required. 150 mm Dia	60	RM	3303	198161
590	16.10.6	Supplying, fixing, testing and commissioning of condenser water pipes of following nominal bore size diameters, MS C Class as per IS : 1239 and materials along with necessary clamps, vibration isolators, and fitting such as bends, tees etc. but excluding valves, strainer and gauges etc adequately supported on rigid supports etc as per specification and as required. 100 mm Dia	20	RM	2403	48054



591	MR	Supplying, fixing, testing and commissioning of condenser water pipes of following nominal bore size diameters, MS C Class as per IS : 1239 and materials along with necessary clamps, vibration isolators, and fitting such as bends, tees etc. but excluding valves, strainer and gauges etc adequately supported on rigid supports etc as per specification and as required. - 50 mm Dia	20	RM	1200	24000
592	MR	Supplying, fixing, testing and commissioning of Butterfly Valve with CI body SS disc nitrile sheet & O ring, Complete with fittings, Nuts, Bolts & Gaskets (Complete with Flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), strainers(Complete with flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), gauges etc for condenser water circulation as per specifications. - 250 mm Ø	3	Nos.	15799	47397
593	16.11.1.1	Supplying, fixing, testing and commissioning of Butterfly Valve with CI body SS disc nitrile sheet & O ring, Complete with fittings, Nuts, Bolts & Gaskets (Complete with Flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), strainers(Complete with flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), gauges etc for condenser water circulation as per specifications. 200 mm Ø	18	Nos.	12639	227507
594	16.11.1.4	Supplying, fixing, testing and commissioning of Butterfly Valve with CI body SS disc nitrile sheet & O ring, Complete with fittings, Nuts, Bolts & Gaskets (Complete with Flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), strainers(Complete with flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), gauges etc for condenser water circulation as per specifications. 100mm Ø	3	Nos.	4832	14496
595	16.11.1.7	Supplying, fixing, testing and commissioning of Butterfly Valve with CI body SS disc nitrile sheet & O ring, Complete with fittings, Nuts, Bolts & Gaskets (Complete with Flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), strainers(Complete with flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), gauges etc for condenser water circulation as per specifications. 50mm Ø	3	Nos.	3029	9088
596	16.11.2.1	Dual plate spring loaded Check valve (NRV) - 200 mm Ø	3	Nos.	11576	34728
597	MR	Flexible connection complete with control unit PN16 - 200mmØ	12	Nos.	8000	96000
598	MR	Supplying, fixing, testing and commissioning of Fully automatic balancing valve (Complete with Flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), strainers(Complete with flanges integral or welded, fittings, Nuts, Bolts & Gaskets (PN-16 Rating), gauges etc for condenser water circulation as per specifications. - 200 mm Ø	6	Nos.	134496	806976
599	16.8	SITC of water pressure gauge (100 mm Ø) bourdon type with brass ball valve of 3/8" Ø and SS tubing, socket. Range (0-50) / (0-100) as required	12	Nos.	1068	12814
600	16.9	SITC of Mercury in glass industrial thermometer in SS-304 casing with 0.5 C least count, range 0-50 C. Brass oil filled thermowell of 1/2" size	18	Nos.	931	16763
601	MR	SITC of Pot strainer as per Specification. - 250 mm Ø (pipe size) - As per CPWD Specification	1	Nos.	106026	106026
602		SITC of Plug valves - 25mm diameter Plug valves in dirt legs	12	Nos.	2500	30000
603	16.7.4.1	SITC of Y strainer - Dia 200mm	6	Nos.	44396	266379



604	16.2.5	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 200 mm Ø Piping (32mm thick insulation)	160	RM	5573	891714
605	16.2.6	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 150 mm Ø Piping (32mm thick insulation)	160	RM	3820	611143
606	16.2.7	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 125 mm Ø Piping (32mm thick insulation)	100	RM	3341	334107
607	16.2.8	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 100 mm Ø Piping (32mm thick insulation)	200	RM	2661	532143



608	16.2.9	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 80 mm Ø Piping (32mm thick insulation)	200	RM	1988	397500
609	16.2.10	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 65 mm Ø Piping (32mm thick insulation)	200	RM	1602	320357
610	16.2.11	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 50 mm Ø Piping (32mm thick insulation)	100	RM	1387	138661
611	16.2.12	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 40 mm Ø Piping (32mm thick insulation)	200	RM	1122	224464



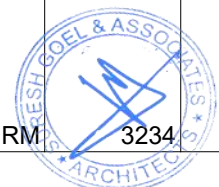
612	16.2.13	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 32 mm Ø Piping (32mm thick insulation)	500	RM	935	467411
613	16.2.14	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside / Outside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of minimum 45 Kg / m3 density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class ' O ' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. Pipe running out side the building shall be cladded with 24 gauge Aluminium sheet. 25 mm Ø Piping (32mm thick insulation)	200	RM	776	155179
614	16.7.1.1	SITC of C.I. Butterfly valve in the chilled water plumbing duly insulated to the same specifications at factory/ site (PN-16) with CI body SS disc, with integral or separate welded Flange /wafer type construction with EPDM coated disc with long pitch with protected out pipe insulation and PN 16 pressure rating for chilled circulation as specified. The valves above 150 mm dia shall be with geat box for operation.200 mm Ø	3	Nos.	13983	41949
615	16.7.1.2	SITC of C.I. Butterfly valve in the chilled water plumbing duly insulated to the same specifications at factory/ site (PN-16) with CI body SS disc, with integral or separate welded Flange /wafer type construction with EPDM coated disc with long pitch with protected out pipe insulation and PN 16 pressure rating for chilled circulation as specified. The valves above 150 mm dia shall be with geat box for operation. 150 mm Ø	18	Nos.	7440	133923
616	16.7.1.5	SITC of C.I. Butterfly valve in the chilled water plumbing duly insulated to the same specifications at factory/ site (PN-16) with CI body SS disc, with integral or separate welded Flange /wafer type construction with EPDM coated disc with long pitch with protected out pipe insulation and PN 16 pressure rating for chilled circulation as specified. The valves above 150 mm dia shall be with geat box for operation. 80 mm Ø	10	Nos.	4327	43268
617	16.7.1.8	SITC of C.I. Butterfly valve in the chilled water plumbing duly insulated to the same specifications at factory/ site (PN-16) with CI body SS disc, with integral or separate welded Flange /wafer type construction with EPDM coated disc with long pitch with protected out pipe insulation and PN 16 pressure rating for chilled circulation as specified. The valves above 150 mm dia shall be with geat box for operation.40 mm Ø	4	Nos.	3126	12504



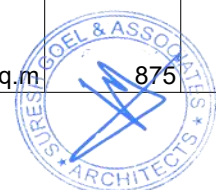
618	RA B5.2	SITC of C.I. Ball valve in the chilled water plumbing duly insulated to the same specifications at factory/ site (PN-16) with CI body SS disc, with integral or separate welded Flange /wafer type construction with EPDM coated disc with long pitch with protected out pipe insulation and PN 16 pressure rating for chilled circulation as specified. The valves above 150 mm dia shall be with gear box for operation. 32 mm Ø	3	Nos.	2153	6459
619		SITC of C.I. Ball valve in the chilled water plumbing duly insulated to the same specifications at factory/ site (PN-16) with CI body SS disc, with integral or separate welded Flange /wafer type construction with EPDM coated disc with long pitch with protected out pipe insulation and PN 16 pressure rating for chilled circulation as specified. The valves above 150 mm dia shall be with gear box for operation. 25 mm Ø	3	Nos.	1320	3960
620	16.7.3.2	SITC of Non-Return valve with dual plate of CI body SS plates vulcanized NBR seal Flanged end for chilled water circulation (PN-16). 150 mm Ø	6	Nos.	8222	49334
621		SITC of CI Flanged Balancing valve (PN-16) with Flanges, EPDM coated disc with built-in measuring facility as per Specification. Fully automatic balancing valve. 150 mm Ø	3	Nos.	99269	297807
622	16.7.4.2	SITC of Y- strainer of ductile CI Body flanged ends with stainless steel strainer 150 mm Ø	6	Nos.	25029	150177
623	16.7.4.5	SITC of Y- strainer of ductile CI Body flanged ends with stainless steel strainer 80 mm Ø	5	Nos.	8823	44116
624	16.7.4.8	SITC of Y- strainer of ductile CI Body flanged ends with stainless steel strainer 40 mm Ø	2	Nos.	3928	7855
625		SITC of Plug valves - 25mm diameter Plug valves in dirt	35	Nos.	2500	87500
626		SITC of Flexible connection complete with control unit - 150 mm Ø	12	Nos.	6000	72000
627	16.8	SITC of water pressure gauge (100 mm Ø) bourdon type with brass ball valve of 3/8" Ø and SS tubing, socket. Range (0-50) / (0-100) as required.	20	Nos.	1068	21357
628	16.9	SITC of Mercury in glass industrial thermometer in SS-304 casing with 0.5C least count, range 0-50 C. Brass oil filled thermowell of 1/2" size	20	Nos.	931	18625



629	RA B6	Supply, Installation, Testing and commissioning of INSULATED PRESSURISED CLOSED WATER EXPANSION TANK suitable for total volume of water in chilled water circuit along with necessary accessories such as 2 Nos pumps (1working +1standby) with Pressure Transmitter and interconnecting Pipe & Isolating Valve complete with piping connections, safety relief valve, drain valve, pressure gauge, automatic air purging arrangement, etc. The tank shall be pre-charged. Expansion tank Shall be with replaceable heavy duty butyl rubber bladder. The tank shall have 50 MM system connection and 20 mm drain and charging valve connection to facilitate the on site charging of nitrogen in the tank. The tank shall be fitted with lifting rings and a floor mounting skirt for vertical installation. The tank must be constructed in accordance with IS-STANDARD 2825-1969 suitable for 125 PSI working pressure. The complete system shall be sourced from single manufacturer and supplied and installed with all accessories and safety fixtures required for proper functioning of the complete hydronic system. The tank shall be duly painted in approved colour shall be complete with pressure switches and power distribution and control panel IP55 Control Panel, Pressure Transmitter, interconnecting piping & wiring. (tank capacity 1000 Lts) Chilled water closed vessel pressurized expansion tank as described above shall be duly insulated with 50 mm thick EPS insulating material and cladded with aluminium Sheet (20G)	1	Nos.	358500	358500
630		Supply, installation , testing and commissioning of Centrifugal type Air separator with pot type strainer / Air & dirt separator for flanged connection 150mm pipe line , automatic air purging arrangement etc. The design parameters for the air separator of efficiency 96-98 %. Suitable for PN16 rating, complete with super vent as required. and duly insulated with 50 mm thick EPS insulated material and cladded with aluminium sheet	1	Nos.	109238	109238
631		Supply, installation , testing and commissioning of 20mm Automatic Air Vent valve suitable to purge out the trapped air in the water pipe line complete as required.	23	Nos.	2602	59846
632		Supplying, fixing, testing and commissioning of medium class G.I. condensate drain pipes on wall/floor/roof of following size/diameters duly insulated with 9 mm thick closed cell nitrile rubber insulation in the form of pre-formed pipe sections and along with necessary clamps, fittings such as bends, tees etc. adequately supported as per specifications and as required.50 mm Ø	10	RM	6452	64520
633		Supplying, fixing, testing and commissioning of medium class G.I. condensate drain pipes on wall/floor/roof of following size/diameters duly insulated with 9 mm thick closed cell nitrile rubber insulation in the form of pre-formed pipe sections and along with necessary clamps, fittings such as bends, tees etc. adequately supported as per specifications and as required.40 mm Ø	20	RM	4323	86460
634		Supplying, fixing, testing and commissioning of medium class G.I. condensate drain pipes on wall/floor/roof of following size/diameters duly insulated with 9 mm thick closed cell nitrile rubber insulation in the form of pre-formed pipe sections and along with necessary clamps, fittings such as bends, tees etc. adequately supported as per specifications and as required.32 mm Ø	70	RM	3234	226380



635		Supplying, fixing, testing and commissioning of medium class G.I. condensate drain pipes on wall/floor/roof of following size/diameters duly insulated with 9 mm thick closed cell nitrile rubber insulation in the form of pre-formed pipe sections and along with necessary clamps, fittings such as bends, tees etc. adequately supported as per specifications and as required. 25 mm Ø	500	RM	1967	983500
636	16.12.1.4	Supply, Installation, Testing Balancing & Commissioning of G.S.S square/ rectangular factory fabricated ducting complete with gaskets, elbows, splitters, vanes, supports adjustable dampers, etc. as per drawings and as required for dehumidified air distribution of following thickness as per approved working drawings, specifications and requirement .Thickness 1.25mm Sheet	5	Sq.m	1639	8196
637	16.12.1.3	Supply, Installation, Testing Balancing & Commissioning of G.S.S square/ rectangular factory fabricated ducting complete with gaskets, elbows, splitters, vanes, supports adjustable dampers, etc. as per drawings and as required for dehumidified air distribution of following thickness as per approved working drawings, specifications and requirement . Thickness 1.00mm Sheet	100	Sq.m	1233	123304
638	16.12.1.2	Supply, Installation, Testing Balancing & Commissioning of G.S.S square/ rectangular factory fabricated ducting complete with gaskets, elbows, splitters, vanes, supports adjustable dampers, etc. as per drawings and as required for dehumidified air distribution of following thickness as per approved working drawings, specifications and requirement .Thickness 0.80mm Sheet	205	Sq.m	1128	231174
639	16.12.1.1	Supply, Installation, Testing Balancing & Commissioning of G.S.S square/ rectangular factory fabricated ducting complete with gaskets, elbows, splitters, vanes, supports adjustable dampers, etc. as per drawings and as required for dehumidified air distribution of following thickness as per approved working drawings, specifications and requirement . Thickness 0.63mm Sheet	750	Sq.m	964	723214
640	16.12.1.3	Supply, Installation, Testing Balancing & Commissioning of Kitchen exhaust duct constructed out of 1.6 mm thick black metal sheets (Welded) complete with fire proof gaskets, elbows, bends, tee, supports etc. painted yellow after applying suitable primer	300	Sq.m	1973	591857
641	16.23.1	Supplying and fixing of 19mm thickness duly laminated aluminium foil of mat finish closed cell Nitrile rubber (class "O") insulation on existing duct after applying two coats of cold setting adhesive (CPR X compound). The joints shall sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.	745	Sq.m	673	501545
642		Supply and fixing of external thermal insulation on ducts running in ambient air with 19mm thick chemically cross linked closed cell polythene (XLPE) fire retardant grade insulation of density not less than 30kg per cum in single layer with factory lamination of 30 micron aluminium foil as per specifications. A coat of starbond or equivalent adhesive shall be applied on insulation & then the insulation shall be wrapped with glass cloth. Over glass cloth two more coats of star bond shall be applied.	20	Sq.m	875	17504



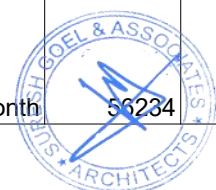
643	16.13	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets,nut,bolts,screws linkages,flanges etc. as per specifications	2	sqm	6291	12582
644	16.15	Supplying, fixing, testing & commissioning of powder coated extruded aluminium section supply air grills with aluminium volume control dampers, as per CPWD	12	Sqm	8129	97554
645	16.16	Supplying, & fixing, of powder coated extruded aluminium section return air grills with louvers but without volume control dampers, complete as per required.	25	Sqm	5277	131920
646	16.17	Supplying, fixing, testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers.as per CPWD specifications.	55	Sqm	10879	598321
647	16.18	Supplying, fixing, testing, commissioning of return air diffusers of powder coated aluminium, as per CPWD specifications.	5	Sqm	7251	36254
648		Double layered Flexible canvass connection made of fibreglass weave having silver grey silicon rubber coating, Flexible connection shall be air tight & water proof and withstand high temperature application, non flammable and does not support combustion. Flexible connection shall be complete with flanges made out of 22G G.S.S sheet on both sides for connection to unit and duct complete with nuts, bolts etc.	10	Sqm	3649	36490
649		Supplying, fixing, testing & commissioning of powder coated extruded aluminium section fresh air louvers in weather maker room with aluminium volume control dampers, bird screen etc completed as required.	3	Sqm	12710	38130
650	16.21	Supply and fixing of acoustic lining of supply air duct and plenum with 25 mm thick resin bonded glass wool having density of 32 kg/m ³ , with 25 mm X 25 mm GI section of 1.25 mm thick, at 600 mm centre to centre covered with Reinforced Plastic tissue paper and 0.5 mm thick perforated aluminium sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound etc. complete as required and as per specifications.	16	Sqm	632	10114



651		Main Panel (AC) - Supplying, installation, testing & commissioning of cubical type main MV panel board suitable for 3 phase, 415 V, 50 Hz and of 35 MVA rupturing capacity at 415 volts, fabricated from minimum 2mm thick CRCA Sheet powder coated through seven tank process facility for pickling and degreasing complete with following mountings, inter connections etc as required (Main Electric Panel) Incomer -800A, 4P EDO type ACB (50 KA) with Microprocessor based release unit for short circuit, over current and earth fault protection with adjustable setting and each shall have following accessories: 0-500 Volts, digital Voltmeter and shall be protected by 2Amps MCBs.0-1000 Amps digital Ammeter, Phase indicating lamps and shall be protected by 2Amps MCBs. Each incomer / outgoing multifunction meter with RS485 conectivity. 1000Amps TPN Aluminium busbars, colour coded with heat shrinkable insulation sleeves (after derating) ,Three(3) Nos. 400A TPN MCCB MDO (50 KA) (PS 300Amps) (for Chillers). (One spare) ,Three (3) Nos. 20A TP MCB with star delta stater (for chilled primary Water 7.5hp Pumps). (One spare),Three (3) Nos. 25A TP MCB for Pump VFD (for chilled water Secondary 10hp Pumps). (One spare), Three (3) Nos. 63A TP MCCB with star delta stater (for chilled water Condenser 25hp Pumps). (One spare) Three (3) Nos. 20A TP MCB with star delta stater (for CT 7.5hp). (One spare),1 Nos. - 32A 10 KA TPN MCB (1 Pr. unit)	1	Nos	700000	700000
652		(Emergency Electric Panel) - Supplying, installation, testing & commissioning of cubical type main MV panel board suitable for 3 phase, 415 V, 50 Hz and of 35 MVA rupturing capacity at 415 volts, fabricated from minimum 2mm thick CRCA Sheet powder coated through seven tank process facility for pickling and degreasing complete with following mountings, inter connections etc as required Incomer- 630A, 4P EDO type ACB (50 KA) with Microprocessor based release unit for short circuit, over current and earth fault protection with adjustable setting and each shall have following accessories:0-500 Volts, digital Voltmeter and shall be protected by 2Amps MCBs. 0-800 Amps digital Ammeter Phase indicating lamps and shall be protected by 2Amps MCBs. Each incomer / outgoing multifunction meter with RS485 conectivity. 1000Amps TPN Aluminium busbars, colour coded with heat shrinkable insulation sleeves (after derating) Outgoing:- Ten (10) Nos. 20A TP MCB with DOL. (8#Basement exhaust & 2#lift well pr.)Eight (8) Nos. 16A TP MCB with DOL. (Basement intake) Two (2) Nos. 32A TP MCCB with DOL. (Lift Lobby)	1	Nos	800000	800000
653	MR	L.T. CABLES Supplying, installation, testing and commissioning of following size XLPE insulated and PVC sheathed aluminium conductor armoured cable of 1.1 KV grade complete as required. (ISI Marked) including Laying and fixing, interconnections from stators to motors on suitable cable trays / supports as required including connections on both sides with brass compression gland and aluminium lugs as required.3.5Cx 95 Sq.mm (Chiller) 2R	120	RM	1071	128520




654	MR	L.T. CABLES Supplying, installation, testing and commissioning of following size XLPE insulated and PVC sheathed aluminium conductor armoured cable of 1.1 KV grade complete as required. (ISI Marked) including Laying and fixing, interconnections from stators to motors on suitable cable trays / supports as required including connections on both sides with brass compression gland and aluminium lugs as required. 3C x 35 sq.mm. (Cond water pumps)	120	Mtrs.	430	51552
655	MR	L.T. CABLES Supplying, installation, testing and commissioning of following size XLPE insulated and PVC sheathed aluminium conductor armoured cable of 1.1 KV grade complete as required. (ISI Marked) including Laying and fixing, interconnections from stators to motors on suitable cable trays / supports as required including connections on both sides with brass compression gland and aluminium lugs as required. 3.5 x 16 sq.mm. (Sec. Pump)	60	Mtrs.	193	11580
656	MR	L.T. CABLES Supplying, installation, testing and commissioning of following size XLPE insulated and PVC sheathed aluminium conductor armoured cable of 1.1 KV grade complete as required. (ISI Marked) including Laying and fixing, interconnections from stators to motors on suitable cable trays / supports as required including connections on both sides with brass compression gland and aluminium lugs as required. 3 x 6 sq.mm. (PP & CT)	240	Mtrs.	201	48240
657		Providing & fixing 25mm x 5mm copper strip on surface or in recess for earth connections etc complete as required.	240	Metre	975	234000
658		Providing & fixing 6 SWG dia GI wire on surface or in recess for loop earthing complete as required.	840	Metre	16	13440
659		SITC Split AC indoor and out door Unit 1.5 TR Capacity including copper pipe of required length complete .	64	each	44643	2857152
Total of HVAC						45225406
Part - B - Elerctrical Operation and Day to day Complaint						
660	MR	Providing services of preventive maintenance , repair & attending the day to day complaints and rectification/replacement of defective accessories of internal & external electrical equipments in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge during the general shift with minimum staff of wireman-1 Nos. and Helper/khallasi-1 Nos.-For 1st Year	12	month	53556	642672
661	MR	Providing services of preventive maintenance , repair & attending the day to day complaints and rectification/replacement of defective accessories of internal & external electrical equipments in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge during the general shift with minimum staff of wireman-1 Nos. and Helper/khallasi-1 Nos. -For 2nd Year	12	month	56234	674806



662	MR	Providing services of preventive maintenance , repair & attending the day to day complaints and rectification/replacement of defective accessories of internal & external electrical equipments in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge during the general shift with minimum staff of wireman-1 Nos. and Helper/khallasi-1 Nos.For 3rd year	12	month	58912	706939
663	MR	Providing services of preventive maintenance , repair & attending the day to day complaints and rectification/replacement of defective accessories of internal & external electrical equipments in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge during the general shift with minimum staff of wireman-1 Nos. and Helper/khallasi-1 Nos. -For 4th Year	12	month	61589	739073
664	MR	Providing services of preventive maintenance , repair & attending the day to day complaints and rectification/replacement of defective accessories of internal & external electrical equipments in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge during the general shift with minimum staff of wireman-1 Nos. and Helper/khallasi-1 Nos.For 5th Year	12	month	64267	771206
665	GR	Providing services of comprehensive preventive, annual servicing maintenance contract for the Entire Substation equipment consisting of HT & LT equipments, Oil Filtration, inclusive of all parts consumables, cables, earthing, safety equipments and labour for all equipments supplied as well as replacement of any equipment / component/ part which can be repaired to the satisfaction of Engineer In Charge.For 1st Year	Deleted			
666	GR	Providing services of comprehensive preventive, annual servicing maintenance contract for the Entire Substation equipment consisting of HT & LT equipments, Oil Filtration, inclusive of all parts consumables, cables, earthing, safety equipments and labour for all equipments supplied as well as replacement of any equipment / component/ part which can be repaired to the satisfaction of Engineer In Charge.For 2nd Year	Deleted			
667	GR	Providing services of comprehensive preventive, annual servicing maintenance contract for the Entire Substation equipment consisting of HT & LT equipments, Oil Filtration, inclusive of all parts consumables, cables, earthing, safety equipments and labour for all equipments supplied as well as replacement of any equipment / component/ part which can be repaired to the satisfaction of Engineer In Charge.For 3rd year	Deleted			



668	GR	Providing services of comprehensive preventive, annual servicing maintenance contract for the Entire Substation equipment consisting of HT & LT equipments, Oil Filtration, inclusive of all parts consumables, cables, earthing, safety equipments and labour for all equipments supplied as well as replacement of any equipment / component/ part which can be repaired to the satisfaction of Engineer In Charge.after DLP of 1 Years-For 4th Year	Deleted			
669	GR	Providing services of comprehensive preventive, annual servicing maintenance contract for the Entire Substation equipment consisting of HT & LT equipments, Oil Filtration, inclusive of all parts consumables, cables, earthing, safety equipments and labour for all equipments supplied as well as replacement of any equipment / component/ part which can be repaired to the satisfaction of Engineer In Charge.after DLP of 1 Years-For 5th Year	Deleted			
670	GR	Providing services of comprehensive maintenance for 500 KVA DG Set installed in Electric substation along with AMF Panel & Carrying out A,B& C periodic maintenance check, including B-Check Kit, Air Cleaning elements, coolant,& lubricating oil, attending all major& minor faults and rectification as per terms & conditions after 1 Years of DLP-For 1st Year	Deleted			
671	GR	Providing services of comprehensive maintenance for 500 KVA DG Set installed in Electric substation along with AMF Panel & Carrying out A,B& C periodic maintenance check, including B-Check Kit, Air Cleaning elements, coolant,& lubricating oil, attending all major& minor faults and rectification as per terms & conditions after 1 Years of DLP-For 2nd Year	Deleted			
672	GR	Providing services of comprehensive maintenance for 500 KVA DG Set installed in Electric substation along with AMF Panel & Carrying out A,B& C periodic maintenance check, including B-Check Kit, Air Cleaning elements, coolant,& lubricating oil, attending all major& minor faults and rectification as per terms & conditions after 1 Years of DLP-For 3rd year	Deleted			
673	GR	Providing services of comprehensive maintenance for 500 KVA DG Set installed in Electric substation along with AMF Panel & Carrying out A,B& C periodic maintenance check, including B-Check Kit, Air Cleaning elements, coolant,& lubricating oil, attending all major& minor faults and rectification as per terms & conditions after 1 Years of DLP-For 4th Year	Deleted			
674	GR	Providing services of comprehensive maintenance for 500 KVA DG Set installed in Electric substation along with AMF Panel & Carrying out A,B& C periodic maintenance check, including B-Check Kit, Air Cleaning elements, coolant,& lubricating oil, attending all major& minor faults and rectification as per terms & conditions after 1 Years of DLP-For 5th Year	Deleted			
675	MR	Providing services of running and operation of substation equipments consisting of HT & LT equipments, DG sets in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: Supervisor/Engineer-1Nos. Wireman-3Nos. Helper-3Nos.-For 1st Year	12	month	 204942	2459304

676	b	Providing services of running and operation of substation equipments consisting of HT & LT equipments, DG sets in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: Supervisor/Engineer-1Nos. Wireman-3Nos. Helper-3Nos.-For 2nd Year	12	month	215189	2582269
677	c	Providing services of running and operation of substation equipments consisting of HT & LT equipments, DG sets in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: Supervisor/Engineer-1Nos. Wireman-3Nos. Helper-3Nos.-For 3rd year	12	month	225436	2705234
678	d	Providing services of running and operation of substation equipments consisting of HT & LT equipments, DG sets in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: Supervisor/Engineer-1Nos. Wireman-3Nos. Helper-3Nos.-For 4th Year	12	month	235683	2828200
679	e	Providing services of running and operation of substation equipments consisting of HT & LT equipments, DG sets in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: Supervisor/Engineer-1Nos. Wireman-3Nos. Helper-3Nos.-For 5th Year	12	month	245930	2951165
680	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger Lift for SAC Block (B+G+4) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 1st Year	Deleted			
681	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger Lift for SAC Block (B+G+4) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 2nd Year	Deleted			
682	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger Lift for SAC Block (B+G+4) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 3rd year	Deleted			
683	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger Lift for SAC Block (B+G+4) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 4th Year	Deleted			



684	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger Lift for SAC Block (B+G+4) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 5th Year	Deleted
685	GR	Comprehensive Maintenance of 1 Nos. 13 Passeneger & 1 Nos. 26 Passenger Lift for Housing Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 1st Year	Deleted
686	GR	Comprehensive Maintenance of 1 Nos. 13 Passeneger & 1 Nos. 26 Passenger Lift for Housing Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 2nd Year	Deleted
687	GR	Comprehensive Maintenance of 1 Nos. 13 Passeneger & 1 Nos. 26 Passenger Lift for Housing Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 3rd year	Deleted
688	GR	Comprehensive Maintenance of 1 Nos. 13 Passeneger & 1 Nos. 26 Passenger Lift for Housing Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 4th Year	Deleted
689	GR	Comprehensive Maintenance of 1 Nos. 13 Passeneger & 1 Nos. 26 Passenger Lift for Housing Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 5th Year	Deleted
690	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger & 2 Nos. 26 Passenger Lift for Hostel Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 1st Year	Deleted
691	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger & 2 Nos. 26 Passenger Lift for Hostel Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 2nd Year	Deleted
692	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger & 2 Nos. 26 Passenger Lift for Hostel Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 3rd year	Deleted
693	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger & 2 Nos. 26 Passenger Lift for Hostel Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 4th Year	Deleted
694	GR	Comprehensive Maintenance of 2 Nos. 13 Passeneger & 2 Nos. 26 Passenger Lift for Hostel Block (S+14) with Machine Room Less & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After DLP of 1 year-For 5th Year	Deleted
695	MR	Comprehensive Maintenance of 12 Nos. Dome Camera, 148 Nos. Bullet Camera, 3Nos. PTZ Cameras, 6 Nos. 55" LED Display, 2 Nos. 128 Channel NVR, i Nos. VMS Software, 2 Nos. Server station, 6 nos. Client Workstations, 21 Nos. 16 TB HDDand 6 Nos. 15 mtr HDMI Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 1st Year	Deleted



696	MR	Comprehensive Maintenance of 12 Nos. Dome Camera, 148 Nos. Bullet Camera, 3Nos. PTZ Cameras, 6 Nos. 55" LED Display, 2 Nos. 128 Channel NVR, i Nos. VMS Software, 2 Nos. Server station, 6 nos. Client Workstations, 21 Nos. 16 TB HDDand 6 Nos. 15 mtr HDMI Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 2nd Year	Deleted
697	c	Comprehensive Maintenance of 12 Nos. Dome Camera, 148 Nos. Bullet Camera, 3Nos. PTZ Cameras, 6 Nos. 55" LED Display, 2 Nos. 128 Channel NVR, i Nos. VMS Software, 2 Nos. Server station, 6 nos. Client Workstations, 21 Nos. 16 TB HDDand 6 Nos. 15 mtr HDMI Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 3rd year	Deleted
698	MR	Comprehensive Maintenance of 12 Nos. Dome Camera, 148 Nos. Bullet Camera, 3Nos. PTZ Cameras, 6 Nos. 55" LED Display, 2 Nos. 128 Channel NVR, i Nos. VMS Software, 2 Nos. Server station, 6 nos. Client Workstations, 21 Nos. 16 TB HDDand 6 Nos. 15 mtr HDMI Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 4th Year	Deleted
699	MR	Comprehensive Maintenance of 12 Nos. Dome Camera, 148 Nos. Bullet Camera, 3Nos. PTZ Cameras, 6 Nos. 55" LED Display, 2 Nos. 128 Channel NVR, i Nos. VMS Software, 2 Nos. Server station, 6 nos. Client Workstations, 21 Nos. 16 TB HDDand 6 Nos. 15 mtr HDMI Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 5th Year	Deleted
700	MR	Comprehensive Maintenance of 289 Nos. Photothermal detector, 8 nos. Thermal detectors, 76 nos. Fire Control Module, 76 Nos. Horn cum strobe, 76 Nos. MCPs, 76 Nos. Fire Fighter Jack, 18 Nos. Fire Fighter Telephone Handsets, 1 Nos. Intelligent Interface Unit, 21 Nos. Fault Isolators, 1 Nos. Central Graphical FAS Monitoring System, 3 Nos. Two Loop FAS Panel, 3 Nos. PA Controller, 374 Nos. 6W metal Speakers, 5 nos. Power Amplifier, 3 nos. 6 zone stylish call station, 5700 mtr 25 mm dia steel conduit, 4200 mtr speaker cable, 3300 mtr 2X1.5 FR PVC copper Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 1st Year	Deleted
701	MR	Comprehensive Maintenance of 289 Nos. Photothermal detector, 8 nos. Thermal detectors, 76 nos. Fire Control Module, 76 Nos. Horn cum strobe, 76 Nos. MCPs, 76 Nos. Fire Fighter Jack, 18 Nos. Fire Fighter Telephone Handsets, 1 Nos. Intelligent Interface Unit, 21 Nos. Fault Isolators, 1 Nos. Central Graphical FAS Monitoring System, 3 Nos. Two Loop FAS Panel, 3 Nos. PA Controller, 374 Nos. 6W metal Speakers, 5 nos. Power Amplifier, 3 nos. 6 zone stylish call station, 5700 mtr 25 mm dia steel conduit, 4200 mtr speaker cable, 3300 mtr 2X1.5 FR PVC copper Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 2nd Year	Deleted



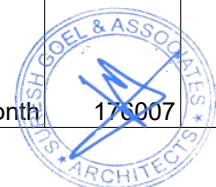
702	MR	Comprehensive Maintenance of 289 Nos. Photothermal detector, 8 nos. Thermal detectors, 76 nos. Fire Control Module, 76 Nos. Horn cum strobe, 76 Nos. MCPs, 76 Nos. Fire Fighter Jack, 18 Nos. Fire Fighter Telephone Handsets, 1 Nos. Intelligent Interface Unit, 21 Nos. Fault Isolators, 1 Nos. Central Graphical FAS Monitoring System, 3 Nos. Two Loop FAS Panel, 3 Nos. PA Controller, 374 Nos. 6W metal Speakers, 5 nos. Power Amplifier, 3 nos. 6 zone stylish call station, 5700 mtr 25 mm dia steel conduit, 4200 mtr speaker cable, 3300 mtr 2X1.5 FR PVC copper Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 3rd year	Deleted
703	MR	Comprehensive Maintenance of 289 Nos. Photothermal detector, 8 nos. Thermal detectors, 76 nos. Fire Control Module, 76 Nos. Horn cum strobe, 76 Nos. MCPs, 76 Nos. Fire Fighter Jack, 18 Nos. Fire Fighter Telephone Handsets, 1 Nos. Intelligent Interface Unit, 21 Nos. Fault Isolators, 1 Nos. Central Graphical FAS Monitoring System, 3 Nos. Two Loop FAS Panel, 3 Nos. PA Controller, 374 Nos. 6W metal Speakers, 5 nos. Power Amplifier, 3 nos. 6 zone stylish call station, 5700 mtr 25 mm dia steel conduit, 4200 mtr speaker cable, 3300 mtr 2X1.5 FR PVC copper Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 4th Year	Deleted
704	MR	Comprehensive Maintenance of 289 Nos. Photothermal detector, 8 nos. Thermal detectors, 76 nos. Fire Control Module, 76 Nos. Horn cum strobe, 76 Nos. MCPs, 76 Nos. Fire Fighter Jack, 18 Nos. Fire Fighter Telephone Handsets, 1 Nos. Intelligent Interface Unit, 21 Nos. Fault Isolators, 1 Nos. Central Graphical FAS Monitoring System, 3 Nos. Two Loop FAS Panel, 3 Nos. PA Controller, 374 Nos. 6W metal Speakers, 5 nos. Power Amplifier, 3 nos. 6 zone stylish call station, 5700 mtr 25 mm dia steel conduit, 4200 mtr speaker cable, 3300 mtr 2X1.5 FR PVC copper Cable etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 5th Year	Deleted
705	MR	Comprehensive Maintenance of 2 Nos. of extensions 128 and 159 Nos. of IP Phones etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 1st Year	Deleted
706	MR	Comprehensive Maintenance of 2 Nos. of extensions 128 and 159 Nos. of IP Phones etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 2nd Year	Deleted
707	MR	Comprehensive Maintenance of 2 Nos. of extensions 128 and 159 Nos. of IP Phones etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 3rd year	Deleted
708	MR	Comprehensive Maintenance of 2 Nos. of extensions 128 and 159 Nos. of IP Phones etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 4th Year	Deleted



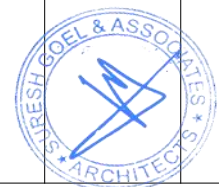
709	MR	Comprehensive Maintenance of 2 Nos. of extensions 128 and 159 Nos. of IP Phones etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 5th Year	Deleted			
710	MR	Comprehensive Maintenance of Distribution Switches, PoE Switches, WIFI devices, Wireless Controller, Copper & fiber Patch Cords, Jacj Panels, Information Outlets, LAN Cable, conduits, LIUs, Racks etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year	Deleted			
711	MR	Comprehensive Maintenance of Distribution Switches, PoE Switches, WIFI devices, Wireless Controller, Copper & fiber Patch Cords, Jacj Panels, Information Outlets, LAN Cable, conduits, LIUs, Racks etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year	Deleted			
712	MR	Comprehensive Maintenance of Distribution Switches, PoE Switches, WIFI devices, Wireless Controller, Copper & fiber Patch Cords, Jacj Panels, Information Outlets, LAN Cable, conduits, LIUs, Racks etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year	Deleted			
713	MR	Comprehensive Maintenance of Distribution Switches, PoE Switches, WIFI devices, Wireless Controller, Copper & fiber Patch Cords, Jacj Panels, Information Outlets, LAN Cable, conduits, LIUs, Racks etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year	Deleted			
714	MR	Comprehensive Maintenance of Distribution Switches, PoE Switches, WIFI devices, Wireless Controller, Copper & fiber Patch Cords, Jacj Panels, Information Outlets, LAN Cable, conduits, LIUs, Racks etc. & preventive Maintenance, repair and replacement complete as required as per terms & conditions attached. After 1 Year of DLP-For 5th Year	Deleted			
715	MR	Providing services of operation, & attending the day to day complaints and rectification of defective accessories of ELV equipments (LAN, IPABX, CCTV, & Other IT Services) in Hostel Block, Housing Block, Student Activity Block, Director Residence and External area, and other buildings etc. Cleaning of equipments including providing consumable material like duster, cleaning material, wire, connectors, tape etc. as per directons of Engineer In charge during the general shift with minimum staff of It Operator/Technician-2 Nos. -For 1st Year	12	month	56764	681168
716	MR	Providing services of operation, & attending the day to day complaints and rectification of defective accessories of ELV equipments (LAN, IPABX, CCTV, & Other IT Services) in Hostel Block, Housing Block, Student Activity Block, Director Residence and External area, and other buildings etc. Cleaning of equipments including providing consumable material like duster, cleaning material, wire, connectors, tape etc. as per directons of Engineer In charge during the general shift with minimum staff of It Operator/Technician-2 Nos. -For 2nd Year	12	month	59602	715226



717	MR	Providing services of operation, & attending the day to day complaints and rectification of defective accessories of ELV equipments (LAN, IPABX, CCTV, & Other IT Services) in Hostel Block, Housing Block, Student Activity Block, Director Residence and External area, and other buildings etc. Cleaning of equipments including providing consumable material like duster, cleaning material, wire, connectors, tape etc. as per directons of Engineer In charge during the general shift with minimum staff of It Operator/Technician-2 Nos. For 3rd year	12	month	62440	749285
718	MR	Providing services of operation, & attending the day to day complaints and rectification of defective accessories of ELV equipments (LAN, IPABX, CCTV, & Other IT Services) in Hostel Block, Housing Block, Student Activity Block, Director Residence and External area, and other buildings etc. Cleaning of equipments including providing consumable material like duster, cleaning material, wire, connectors, tape etc. as per directons of Engineer In charge during the general shift with minimum staff of It Operator/Technician-2 Nos.-For 4th Year	12	month	65279	783343
719	MR	Providing services of operation, & attending the day to day complaints and rectification of defective accessories of ELV equipments (LAN, IPABX, CCTV, & Other IT Services) in Hostel Block, Housing Block, Student Activity Block, Director Residence and External area, and other buildings etc. Cleaning of equipments including providing consumable material like duster, cleaning material, wire, connectors, tape etc. as per directons of Engineer In charge during the general shift with minimum staff of It Operator/Technician-2 Nos.-For 5th Year	12	month	68117	817402
Total Of Part B - OPERATION						20807292
Operation OF HVAC WORK						
720	MR	Operation of the high side & low side of the air conditioning plant comprising of all the machinery, equipment installed in the A.C. Plant room including cooling tower for the defect liability period of five year as per maintenance Schedule attached at Annexure 'H' .(Running and operation only) for First Year	12	Month	152042	1824498
721	MR	Operation of the high side & low side of the air conditioning plant comprising of all the machinery, equipment installed in the A.C. Plant room including cooling tower for the defect liability period of five year as per maintenance Schedule attached at Annexure 'H' .(Running and operation only) for Second year	12	Month	159644	1915723
722	MR	Operation of the high side & low side of the air conditioning plant comprising of all the machinery, equipment installed in the A.C. Plant room including cooling tower for the defect liability period of five year as per maintenance Schedule attached at Annexure 'H' .(Running and operation only) for Third Year	12	Month	167626	2011509
723	MR	Operation of the high side & low side of the air conditioning plant comprising of all the machinery, equipment installed in the A.C. Plant room including cooling tower for the defect liability period of five year as per maintenance Schedule attached at Annexure 'H' .(Running and operation only) for Forth Year	12	Month	170007	2112084



724	MR	Operation of the high side & low side of the air conditioning plant comprising of all the machinery, equipment installed in the A.C. Plant room including cooling tower for the defect liability period of five year as per maintenance Schedule attached at Annexure 'H' .(Running and operation only) fifth year	12	Month	184807	2217689
						10081503
	C	Fire Fighting Operation and day to day Complaint				
725	MR	Providing services of running and operation fire fighting equipments pumps etc in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge with minimum staff of skill person-1 Nos. and Helper/khallasi-1 Nos.-For 1st Year	12	month	53556	642672
726	MR	Providing services of running and operation fire fighting equipments pumps etc in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge with minimum staff of skill person-1 Nos. and Helper/khallasi-1 Nos.-For 2nd Year	12	month	56234	674806
727	MR	Providing services of running and operation fire fighting equipments pumps etc in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge with minimum staff of skill person-1 Nos. and Helper/khallasi-1 Nos.-For 3rd Year	12	month	58912	706939
728	MR	Providing services of running and operation fire fighting equipments pumps etc in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge with minimum staff of skill person-1 Nos. and Helper/khallasi-1 Nos.-For 4th Year	12	month	61589	739073



729	MR	Providing services of running and operation fire fighting equipments pumps etc in three shifts on all days including sundays & holidays & day to day Maintenance , cleaning of equipments as per direction of Engineer In Charge including attending the complaints in the buildings of campus during 2nd and night shifts with following minimum staff: in Hostel Block, Housing Block, Student Activity Block, Director Residence and External Street Lighting with Panels, and other buildings etc. Cleaning of equipments including providing consumable material like wire, duster, greece, oil, tape, thimble, lugs, switches, socket, detergent etc. as per directons of Engineer In charge with minimum staff of skill person-1 Nos. and Helper/khallasi-1 Nos.-For 5th Year	12	month	64267	771206
						3534696

