

Structure works including Pile foundation, Block works, plumbing and other finishing works, Internal electrification

Sl. No.		UNIT	QTY	RATE	AMOUNT
	PART 1 - HOSTEL BLOCK				
	Strucural work including pile foundation				
1	Clearing jungle including uprooting of rank vegetation, grass, brush wood ,trees and sapling of girth up tp 30cm measured at a height of 1m above ground level and removal of rubbish up to a distance of 50m outside the periphery of the area cleared.	100m ²	1261		
2	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	100m ²	841		
3	Felling trees of girth (measured at a height of 1m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.				
a)	Beyond 30 cm girth upto and including 60 cm girth .	Each	20		
b)	Beyond 60 cm girth upto and including 120 cm girth .	Each	15		
c)	Beyond 120 cm girth upto and including 240 cm girth .	Each	12		
d)	Above 240 cm girth .	Each	5		
4	Earth work excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m in excavation /banking excavated materials with in a lead of 50 mts. .	m ³	860		
	i) All kinds of soil.				

Sl. No.		UNIT	QTY	RATE	AMOUNT
5	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift from 1.5 mto 3m or part thereof in excavation /banking excavated materials. .				
	i) All kinds of soil.	m ³	278		
6	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth,consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	m ³	361		
7	Random rubble masonry in CM 1:6 for foundation and basement using approved quality rubble, at all heights, with necessary bonding stones etc , in line and levels instructed by the site engineer including the scaffolding charges etc complete. The rate includes necessary pointing simultaneously the exposed surface with the same mortar i) Cement mortar 1:6 (1 cement : 6 coarse sand)	m ³	20		
8	Providing and laying cement concrete at or near ground level excluding the cost of centering, shuttering and finishing.All works up to plinth level :				
a)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size):	m ³	225		
b)	1:1½:3 (1 Cement :1½ coarse sand : 3 graded stone aggregate 20 mm nominal size)	m ³	105		

Sl. No.		UNIT	QTY	RATE	AMOUNT
9	Providing and laying in position machine batched and machine mixed Design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including 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 Architect (Cement content considered is @ 340 kg/ cum)				
	All works upto plinth level	m ³	568		
10	Providing and laying in position machine batched and machine mixed Design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including 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 Architect (Cement content considered is @ 330 kg/ cum)				
a)	All works above plinth level upto floor V level	m ³	805		
b)	All works work above floor V level for each four floors or part thereof.	m ³	583		
11	Centering and shuttering including strutting, propping etc. and removal of form. At all levels				
a)	Foundations, footings, bases of columns, mass concrete etc.	m ²	664		

Sl. No.		UNIT	QTY	RATE	AMOUNT
b)	Walls (any thickness) including attached pilasters, buttersesses,plinth, string courses etc.	m ²	858		
c)	Suspended floors, roofs, landings, balconies and access platform	m ²	5448		
d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers	m ²	3006		
e)	Columns, Pillars, Piers, Abutments, Posts and Struts	m ²	1685		
f)	Stairs, (excluding landings) except spiral-staircases	m ²	219		
g)	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards	m ²	200		
12	Providing and laying cement concrete in terrace floor as screed concrete for achieving desired slope for roof drainage including cost of centering, shuttering and finishing etc complete				
	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	m ³	40		
13	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. (Steel will be supplied by HLL at site)				
	Thermo-Mechanically Treated bars Fe500 D	kg	203070		
14	Add for Using extra cement in Design mix concrete	kg	10305		
15	Deduct for using less cement in Design mix concrete	kg	10305		

Sl. No.		UNIT	QTY	RATE	AMOUNT
16	Supplying and applying chemical emulsion using chloropyriphos 20% EC as per specification for "pre-constructural " Anti - termite treatment creating a continuous chemical barrier, under and all around the column pits, all excavated trenches, top surface of plinth filling junction of wall and floor, external perimeter of the building (minimum of 1m width) expansion joints, top surface of consolidated earth for flooring etc. complete as per technical specification or as directed by the Architect (Plinth area of the building at ground floor level only shall be measured for payment.)	m ²	600		
	TOTAL (PART I STRUCTURAL)				
	PART 2- RESEARCH BLOCK				
1	Clearing jungle including uprooting of rank vegetation, grass, brush wood ,trees and sapling of girth up tp 30cm measured at a height of 1m above ground level and removal of rubbish up to a distance of 50m outside the periphery of the area cleared	100m ²	3300		
2	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	100m ²	2200		
3	Felling trees of the girth (measured at a height of 1m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.				
a)	Beyond 30 cm girth upto and including 60 cm girth	Each	20		
b)	Beyond 60 cm girth upto and including 120 cm girth	Each	15		
c)	Beyond 120 cm girth upto and including 240 cm girth	Each	12		

Sl. No.		UNIT	QTY	RATE	AMOUNT
d)	Above 240 cm girth	Each	5		
4(a)	Earth work in rough excavation, banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead upto 50 m and lift upto 1.5 m	m ³	1000		
4(b)	Earth work in rough excavation, banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, dressing up in embankments for roads, flood banks, marginal banks and guide banks or filling up ground depressions, filling inside plinth etc. lead upto 50 m and lift upto 1.5 m	m ³	10800		
5	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed i) All kind of soil	m ³	7821		
6	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. of 1.5 m to 3m or part thereof in excavation /banking excavated or stacked materials. . i) All kinds of soil.	m ³	3700		

Sl. No.		UNIT	QTY	RATE	AMOUNT
7	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. of 3 mto 4.5m or part thereof in excavation /banking excavated or stacked materials. . i) All kinds of soil.	m ³	2000		
8	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means infoundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m i) All kinds of soil.	m ³	725		
9	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means infoundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift of 1.5 mto 3m or part there of in excavation /banking excavated or stacked materials.. i) All kinds of soil.	m ³	360		
10	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth,consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	m ³	2000		

Sl. No.		UNIT	QTY	RATE	AMOUNT
11	Random rubble masonry in CM 1:6 for foundation and basement using approved quality rubble, at all heights, with necessary bonding stones etc , in line and levels instructed by the site engineer including the scaffolding charges etc complete. The rate includes necessary pointing simultaneously the exposed surface with the same mortar i) Cement mortar 1:6 (1 cement : 6 coarse sand)	m ³	10		
12	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 (Minimum cement content - 400 Kg/M3) of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic piling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).				
	Note:(i)Truck Mounted rotary/TMR/Tube well boring machine shall not be used.				
	(ii) Piles are to be founded with a socketting length of 3D into the appropriate strata				
a)	400mmdia piles	m	190		
b)	500 mm dia piles	m	25		
c)	600mm dia pile	m	100		
d)	700mm dia pile	m	430		

Sl. No.		UNIT	QTY	RATE	AMOUNT
13	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 (minimum Cement Content = 400 Kg/M3) of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic piling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).				
	Note:(i)Truck Mounted rotary/TMR/Tube well boring machine shall not be used. (ii) The piles are to be founded with a socketting length of 3D in to the appropriate strata.				
a)	800mm dia	m	365		
b)	900 mm dia pile	m	1075		
c)	1000mm dia pile	m	745		
d)	1200mm dia pile	m	680		
14	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Architect Single pile above 50 tonne and upto 100 tonne Safe capacity				
a)	Initial test (Test Load 2.5 times the Safe capacity) (Capacity of 700mm dia pile - 100T)	Per test	1		

Sl. No.		UNIT	QTY	RATE	AMOUNT
b)	Routine test (Test Load 1.5 times the Safe capacity) (Capacity of 900mm dia pile - 160 T)/ (Capacity of 100 dia pile - 200T)	Per test	1		
15	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. (Steel will be supplied by HLL at site) Thermo-Mechanically Treated bars of Fe 500D	kg	82652		
16	Providing and laying cement concrete at or near ground level excluding the cost of centering, shuttering and finishing.All work up to plinth:				
a)	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	m ³	42		
b)	1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size)	m ³	257		
17	Providing and laying in position machine batched and machine mixed Design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including 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 Architect Cement content considered is @ 340 kg/ cum)				
	All works upto plinth level	m ³	995		

Sl. No.		UNIT	QTY	RATE	AMOUNT
18	Providing and laying in position machine batched and machine mixed Design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including 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 Architect Cement content considered is @ 330 kg/ cum)				
a)	All works above plinth level upto floor V level	m ³	2644		
b)	All works work above floor V level for each four floors or part thereof.	m ³	880		
19	Add for using extra cement in Design mix concrete	kg	23750		
20	Deduct for using less cement in Design mix concrete	kg	23750		
21	Centering and shuttering including strutting, propping etc. and removal of form. At various levels				
a)	Foundations, Pile cap, bases of columns, mass concrete etc	m ²	2100		
b)	Walls (any thickness) including attached pilasters, butteresses,plinth , string courses etc.	m ²	8600		
c)	Suspended floors, roofs, landings, balconies and access platform. Height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and de-centering at all levels, over a height of 3.5 m, for every additional heightof 1 metre or part thereof (Plan area to be measured).	m ²	6000		

Sl. No.		UNIT	QTY	RATE	AMOUNT
d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers. Height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional heightof 1 metre or part thereof (Plan area to be measured)	m ²	9000		
e)	Columns, Pillars, Piers, Abutments, Posts and Struts	m ²	6000		
f)	Stairs, (excluding landings) except spiral-staircases	m ²	315		
g)	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards	m ²	100		
20	Providing and laying cement concrete in terrace floor as screed concrete for achieving desired slope for roof drainage at all levels including the cost of centering, shuttering and finishing:				
	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	m ³	200		
21	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. (Steel will be supplied by HLL at site)				
	Thermo-Mechanically Treated bars of Fe 500D	kg	451230		

Sl. No.		UNIT	QTY	RATE	AMOUNT
22	Supplying and applying chemical emulsion using chloropyriphos 20% EC as per specification for "pre-constructural " Anti - termite treatment creating a continuous chemical barrier, under and all around the column pits, all excavated trenches, top surface of plinth filling junction of wall and floor, external perimeter of the building (minimum of 1m width) expansion joints, top surface of consolidated earth for flooring etc. complete as per technical specification or as directed by the Architect (Plinth area of the building at ground floor level only shall be measured for payment).	m ²	1400		
	TOTAL (PART II STRUCTURAL)				
	TOTAL (PART I & PART II STRUCTURAL)				
	Finishing works & plumbing works				
	PART 1 - HOSTEL BLOCK	UNIT	QTY	RATE	AMOUNT
1	Constructing masonry walls using precast cement concrete hollow blocks of size 400 x 200x 200 mm with CM 1:5 including hoisting and setting in position all as per relevent BIS code : and as per specification				
a)	Up to floor V level	m ³	466		
b)	Above floor V level for each four floors or part thereof.	m ³	217		
2	Providing and fixing precast cement concrete solid block for masonry work/ partition wall 100mm thick , including hoisting and setting in position with cement mortar 1:3 (1cement : 3 coarse sand), complete as per specification				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Using solid block made of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)				
a)	Up to floor five level	m ³	106		
b)	Above floor V level for each four floors or part thereof.	m ³	91		
3	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5.in superstructure				
a)	up to floor five level	m ²	100		
b)	Above floor V level for every four floor or part thereof	m ²	50		
4	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) up to 10m from ground level	m ²	1517		
5	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 10 m to 13 m from ground level	m ²	509		
6	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 13m to 16m from ground level	m ²	509		
7	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:4 (1 cement: 4 fine sand) for plastering exterior walls of height 16m to 19m from ground level	m ²	509		
8	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 19m to 22m from ground level	m ²	509		
9	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 22m to 25m from ground level	m ²	509		

Sl. No.		UNIT	QTY	RATE	AMOUNT
10	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 25m to 28m from ground level	m ²	129		
11	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 28m to 31m from ground level	m ²	240		
12	Plastering with cement mortar 1:4 12mm thick one coat to walls inside at all heights, floated hard and trowelled to get a smooth finish, provision of grooves, scaffolding, at any height, curing etc.	m ²	11048		
13	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine river sand) for ceiling sunshades etc.	m ²	3827		
14	18 mm cement plaster in two coats under layer 12 mm thick 1:5 (1 cement : 5 coarse river sand) finished with a top layer 6 mm thick 1:6 (1 cement : 6 fine river sand) including adding water proofing admixture etc complete	m ²	731		

Sl. No.		UNIT	QTY	RATE	AMOUNT
15	<p>Water proofing sunken area Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.</p>	m ²	690		

Sl. No.		UNIT	QTY	RATE	AMOUNT
16	<p>Water proofing Roof slab 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 brick tiling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured.</p>	m2	673		
17	<p>Water tank Providing and laying water proofing treatment on water tanks as per details given below</p>				
	<p>Surface Preparation:- Providing and cleaning internal floor area of OHT including wall up to required height to make it free from debris, dirt, dust and other contaminants by using wire brush, grinding all sharp edges to make it flush with the surface, etc and complete as per manufacturer's specification.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Surface Consolidation:- Providing and applying polymer modified mortar to all internal floor and wall up to required height at 12-15mm thickness in CM 1:4 admixed with WPM 405, SBR based, multipurpose, concentrated, liquid polymer additive, at dosage of 1 Ltr per bag of 50 Kg cement, over the wet binding coat of WPM 405, water and cement in ratio of 1:2:3, finishing all corners in fillet / half round in shape, etc and complete as per manufacturer's specification. <i>[The additive shall confirms to:-Form: Thin, white liquid; Specific Gravity: 1.0 kg/litre; pH: 9 - 10; Tensile adhesion over: 1.5 Mpa concrete (7 days); Hydrostatic pressure resistance: 50 psi (0.34MPa); Flexural strength as additive to screed: 3.3MPa; VOC Content: 32 g/L]</i></p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Sealer And Hydrostatic Pressure Resistant Coat:- Providing and applying WPM 200, (Hydrepoxy 200) two components water based epoxy polyamide unpigmented sealer in one coat at a coverage of 5 Sqm per Ltr, applying first coat of WPM 300, water based epoxy polyamide on wet coat of WPM 200 at a coverage of 3 Sqm per Ltr by using good quality of brush or rollers, allowing it to dry completely, applying second coat of WPM 300 and allowing it to dry completely, etc and complete as per manufacturer's specification. <i>[The properties of cured WPM 300 are:- Colour: Light honey colored transparent; Finish: Clear gloss, which darkens and goes to mat on aging; Volume solids: 22 + 2%; Mixing ratio: 1:1 (part A/part B) by volume; Pot life: 4 hours @ 25 Deg C; Typical no. Of coats: 1-2 depending on purpose of application; Recoat time: 1 and half hours @ 25 Deg C and 50% R.H; Full cure: 7 days @ 25 Deg C & 50% R.H; Hydro static resistance: 4 bars]</i></p>	m ²	76		

Sl. No.		UNIT	QTY	RATE	AMOUNT
34	<p>Lift pit Providing and applying single component solvent based bitumen primer using good roller / brush at coverage of 5-6 Sqm per Ltr and allowed to dry completely, installing Waterproof membrane sheet - SBS, peel and stick bituminous/asphalt membrane protected by a cross-laminated, HDPE film, providing over lapping of 60mm wide at lap edge and 100mm wide at sheet end, applying Waterproof membrane sheet on all PCC surface leaving extra 300mm beyond the intended limit of substructures walls, after the construction of base slab, columns and retaining wall, installing the waterproof membrane sheet on the retaining wall up to required height and over lapping the floor membrane,</p>				
	<p>installing PVC protection board of 4 mm thick using duct tape / PVC tapes / similar over waterproof membrane sheet installed on the floor area and retaining wall, terminating the waterproof membrane sheet using highly flexible polyurethane sealant, including cleaning PCC surface and retaining wall surface to make it free from debris, dirt, dust and other contaminants by using wire brush, grinding all sharp edges to make it flush with the surface followed by water wash (high pressure jet), etc and complete as per manufacturer's specification.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>[The membrane shall confirm to:- Thickness as per UNI 8202 : 1.5mm; Weight as per UNI 8202 : 1.6mm; Tensile strength long as per ASTM D 638 : 4.35N/mm; Tensile strength trans as per ASTM D 638 : 5.69N/mm; Longitudinal elongation of membrane as per ASTM D 638 : 435%; Transverse elongation of membrane as per ASTM D 638 : 380%; Tearing resistance long as per 8202/9 : 83.01 N;</p>	m ²	22		
	<p>Tearing resistance as per 8202/9 : 73.74 N; Adhesion to primed concrete as per ASTM D 1000 : 4.9N/mm; Adhesion to steel as per ASTM D 1000 : 5.8N/mm; Puncture resistance as per ASTM E 154 : 246N/65mm; Vapour transmission rate as per ASTM E 96 : 0.3g/m₂ 24 Hrs; Cold flexibility as per ASTM D 146 : -30 deg C; Environment resistance confirm to : ASTM D 543]</p>				
18	<p>Finishing walls by applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : and Acrylic Smooth exterior paint of required shade : shade on New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)</p>	m ²	4251		

Sl. No.		UNIT	QTY	RATE	AMOUNT
19	Finishing walls by applying priming coat with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. less than 50 grams/litre and applying white cement based putty of approved brand and manufacture, average thickness 1 mm,over the wall surface to prepare the surface even and smooth,painting with acrylic emulsion paint of approved brand and manufacture, having VOC (Volatile Organic Compound) content less than 50 grams/ litre,, including applying additional coats wherever required, to achieve even shade and colour. Two coats	m ²	12858		
20	Wall painting by applying a priming coat with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. less than 50 grams/litre and painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. I) Two coats	m ²	6977		
21	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : . Two or more coats on new work over a coat of ready mixed red oxide zinc chromate primer of approved brand and manufacture on galvanised iron/ steel works	m ²	125		
22	Providing and laying vitrified floor tiles in 800 x 800mm (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.	m ²	180		

Sl. No.		UNIT	QTY	RATE	AMOUNT
23	Providing and laying vitrified floor tiles in 600x 600 mm (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete..	m ²	1494		
24	Kota stone slab flooring 25 mm thick over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :	m ²	307		
25	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown etc., laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc, complete .	m ²	658		
26	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours/ shades except burgundy, bottle green and black, of any size as approved by the Architect, In skirting, risers of steps and dados, over 12 mm thick under layer of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete .	m ²	1532		

Sl. No.		UNIT	QTY	RATE	AMOUNT
27	Providing and laying 60mm thick factory made M -30 grade cement concrete interlocking paver block with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of the Architect.	m ²	316		
28	Marble stone flooring with 18 mm thick marble stone, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete .	m ²	127		
29	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete	m ²	103		
30	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), 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 etc. complete at all levels. Granite of any colour and shade. Area of slab over 0.50 sqm	m ²	105		

Sl. No.		UNIT	QTY	RATE	AMOUNT
31	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for Granite of any colour and shade required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), 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 etc. complete at all levels including providing edge moulding and polishing to edge to give high gloss finish etc. complete as per design approved by HLL	m ²	7		
32	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for Granite of any colour and shade required size, of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), 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 etc. complete at all levels. Granite of any colour and shade Area of slab over 0.50 sqm	m ²	94		
TOTAL (PART I BW & FINISHING)					
PART 2- RESEARCH BLOCK					
33	Constructing masonry walls using precast cement concrete hollow blocks of size 400 x 200x 200 mm with CM 1:5 including hoisting and setting in position all as per relevent BIS code : and as per specification				
a)	Up to floor V level	m ³	505		
b)	Above floor V level for each four floors or part thereof.	m ³	310		

Sl. No.		UNIT	QTY	RATE	AMOUNT
34	Providing and fixing precast cement concrete Solid block for masonry work/ partition wall 100mm thick , including hoisting and setting in position with cement mortar 1:3 (1cement : 3 coarse sand), complete as per specification				
	Using solid block made of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)				
a)	up to floor V level	m ³	230		
b)	Above floor V level for each four floors or part thereof.	m ³	80		
35	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5.in superstructure				
a)	up to floor five level	m ²	160		
b)	Above floor V level for every four floor or part thereof	m ²	80		
36	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) up to 10m from ground level	m ²	1598		
37	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 10 m to 13 m from ground level	m ²	607		
38	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 13m to 16m from ground level	m ²	688		
39	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:4 (1 cement: 4 fine sand) for plastering exterior walls of height 16m to 19m from ground level	m ²	683		

Sl. No.		UNIT	QTY	RATE	AMOUNT
40	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 19m to 22m from ground level	m ²	665		
41	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 22m to 25m from ground level	m ²	665		
42	15 mm cement plaster on the rough side of masonry wall with mix : 1:4 (1 cement: 4 fine river sand) for exterior walls of height 25m to 28m from ground level	m ²	776		
43	Plastering with cement mortar 1:4 12mm thick one coat to walls inside at all heights, floated hard and trowelled to get a smooth finish, provision of grooves, scaffolding, at any height, curing etc.	m ²	18900		
44	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine river sand for ceiling, sucshade etc.	m ²	2203		
45	Plastering with cement mortar 1:4 12mm thick one coat to retaining walls inside at all heights, floated hard and trowelled to get a smooth finish, provision of grooves, scaffolding, at any height, curing etc including adding water proofing admixture at 1kg/ 50kg cement etc. and providing and mixing water proofing materials in cement plaster work in porportion recommended by the manufacturer	m ²	946		
46	18 mm cement plaster in two coats under layer 12 mm thick 1:5 (1 cement : 5 coarse river sand) finished with a top layer 6 mm thick 1:6 (1 cement : 6 fine river sand) including adding water proofing admixture etc complete	m ²	2790		
47	Water proofing sunken area				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.</p>	m ²	450		
48	Water proofing Roof slab				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>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 brick tiling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured.</p>	m ²	1200		
49	Water tank and sump				
	<p>Providing and laying water proofing treatment on water tanks as per details given below</p>	m ²	570		
	<p>Surface Preparation:- Providing and cleaning internal floor area of OHT including wall up to required height to make it free from debris, dirt, dust and other contaminants by using wire brush, grinding all sharp edges to make it flush with the surface, etc and complete as per manufacturer's specification.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Surface Consolidation:- Providing and applying polymer modified mortar to all internal floor and wall up to required height at 12-15mm thickness in CM 1:4 admixed with WPM 405, SBR based, multipurpose, concentrated, liquid polymer additive, at dosage of 1 Ltr per bag of 50 Kg cement, over the wet binding coat of WPM 405, water and cement in ratio of 1:2:3, finishing all corners in fillet / half round in shape, etc and complete as per manufacturer's specification. <i>[The additive shall confirms to:-Form: Thin, white liquid; Specific Gravity: 1.0 kg/litre; pH: 9 - 10; Tensile adhesion over: 1.5 Mpa concrete (7 days); Hydrostatic pressure resistance: 50 psi (0.34MPa); Flexural strength as additive to screed: 3.3MPa; VOC Content: 32 g/L]</i></p>				
	<p>Sealer And Hydrostatic Pressure Resistant Coat:- Providing and applying WPM 200, (Hydrepoxy 200) two components water based epoxy polyamide unpigmented sealer in one coat at a coverage of 5 Sqm per Ltr, applying first coat of WPM 300, water based epoxy polyamide on wet coat of WPM 200 at a coverage of 3 Sqm per Ltr by using good quality of brush or rollers, allowing it to dry completely, applying second coat of WPM 300 and allowing it to dry completely, etc and complete as per manufacturer's specification.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	[The properties of cured WPM 300 are:-Colour: Light honey colored transparent; Finish: Clear gloss, which darkens and goes to mat on aging; Volume solids: 22 + 2%; Mixing ratio: 1:1 (part A/part B) by volume; Pot life: 4 hours @ 25 Deg C; Typical no. Of coats: 1-2 depending on purpose of application; Recoat time: 1 and half hours @ 25 Deg C and 50% R.H; Full cure: 7 days @ 25 Deg C & 50% R.H; Hydro static resistance: 4 bars]				
	Retaining wall /Lift pit				
50	Providing and applying single component solvent based bitumen primer using good roller / brush at coverage of 5-6 Sqm per Ltr and allowed to dry completely, installing Waterproof membrane sheet - SBS, peel and stick bituminous/asphalt membrane protected by a cross-laminated, HDPE film, providing over lapping of 60mm wide at lap edge and 100mm wide at sheet end, applying Waterproof membrane sheet on all PCC surface leaving extra 300mm beyond the intended limit of substructures walls, after the construction of base slab, columns and retaining wall, installing the waterproof membrane sheet on the retaining wall up to required height and over lapping the floor membrane, installing PVC protection board of 4 mm thick using duct tape / PVC tapes / similar over waterproof membrane sheet	m ²	1200		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	installed on the floor area and retaining wall, terminating the waterproof membrane sheet using highly flexible polyurethane sealant, including cleaning PCC surface and retaining wall surface to make it free from debris, dirt, dust and other contaminants by using wire brush, grinding all sharp edges to make it flush with the surface followed by water wash (high pressure jet), etc and complete as per manufacturer's specification.				
	[The membrane shall confirm to:- Thickness as per UNI 8202 : 1.5mm; Weight as per UNI 8202 : 1.6mm; Tensile strength long as per ASTM D 638 : 4.35N/mm; Tensile strength trans as per ASTM D 638 : 5.69N/mm; Longitudinal elongation of membrane as per ASTM D 638 : 435%; Transverse elongation of membrane as per ASTM D 638 : 380%; Tearing resistance long as per 8202/9 : 83.01 N; Tearing resistance as per 8202/9 : 73.74 N; Adhesion to primed concrete as per ASTM D 1000 : 4.9N/mm; Adhesion to steel as per ASTM D 1000 : 5.8N/mm; Puncture resistance as per ASTM E 154 : 246N/65mm; Vapour transmission rate as per ASTM E 96 : 0.3g/m_24 Hrs; Cold flexibility as per ASTM D 146 : -30 deg C; Environment resistance confirm to : ASTM D 543				
51	Isolation Joint (Seperation Joint) between column Providing and fixing 210mmthick 1.80m x0.90m width fillerboards in black colour minimum density 95kg/m3,non staining with less than 1% water absorption& compression recovery of 93% minimum, using sealent and racker rods 25mm dia.The rate includes Exoansion board, sealent racker rods etc	m	256		

Sl. No.		UNIT	QTY	RATE	AMOUNT
52	Isolation Joint (Seperation joint) in roof Providing and fixing 210mmthick 1.80m x0.90m width fillerboards in black colour minimum density 95kg/m ³ ,non staining with less tan 1% water absorption& compression recovery of 93% minimum and using metal sheet for covering Expansion joint. The rate include Expansion board and metal sheet	m	45		
53	Isolation joint(Seperation Joint) in slab portion Entrance side Providing and fixing 210mmthick 1.80m x0.90m width fillerboards in black colour minimum density 95kg/m ³ ,non staining with less tan 1% water absorption& compression recovery of 93% minimum asper specification and using metal sheet. The rate includes expansion boards and metal sheet	m	39		
	Self adhesive sponge seal for frames 188S, Black (1)				
54	Finishing walls by applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : and Acrylic Smooth exterior paint of required shade on New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	m ²	5682		

Sl. No.		UNIT	QTY	RATE	AMOUNT
55	Finishing walls by applying priming coat with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. less than 50 grams/litre and applying white cement based putty of approved brand and manufacture, average thickness 1 mm,over the wall surface to prepare the surface even and smooth,painting with acrylic emulsion paint of approved brand and manufacture, having VOC (Volatile Organic Compound) content less than 50 grams/ litre,, including applying additional coats wherever required, to achieve even shade and colour. I) Two coats	m ²	16382		
56	Wall painting by applying a priming coat with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. less than 50 grams/litre and painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. I) Two coats	m ²	2205		
57	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : . I) Two or more coats on new work over a coat of ready mixed red oxide zinc chromate primer of approved brand and manufacture on galvanised iron/ steel works	m ²	100		

Sl. No.		UNIT	QTY	RATE	AMOUNT
58	Providing and laying fully Vitrified body tiles Size 800mmx800mm matt/satin finish 12mm thickness MOH Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc.	m ²	1420		
59	Providing and laying vitrified floor tiles Size 600x600mm (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc.	m ²	2006		
60	Providing and laying Vitrified tiles Size 600 X 600 mm (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, in skirting, riser of steps, 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 (Payment for grouting of joints to be made separately).	m ²	361		
61	Providing & fixing of 80/20 Tufted 1600gms cutpile carpet	m ²	148		

Sl. No.		UNIT	QTY	RATE	AMOUNT
62	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown etc., laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc, complete .	m ²	250		
63	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours/ shades except burgundy, bottle green and black, of any size as approved by the Architect, In skirting, risers of steps and dados, over 12 mm thick under layer of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete .	m ²	370		
64	Marble stone flooring with 18 mm thick marble stone, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete and For marble stone flooring in treads of steps and risers using single length up to 2.00 metre	m ²	190		
65	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete.	m ³	3		
66	For making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	m ²	30		

Sl. No.		UNIT	QTY	RATE	AMOUNT
67	<p>Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), 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 etc. complete at all levels. Granite of any colour and shade.</p> <p>Area of slab over 0.50 sqm</p>	m ²	200		
68	<p>Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for Granite of any colour and shade required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), 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 etc. complete at all levels including providing edge moulding and polishing to edge to give high gloss finish etc. complete as per design approved by the HLL</p>	m ²	110		
69	<p>Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete</p>	m ²	197		

Sl. No.		UNIT	QTY	RATE	AMOUNT
70	Providing & fixing of 2 mm thick epoxy flooring Surface Preparation:- Providing and cleaning all the floor surface to make it free from dirt, dust and other contaminants, grinding all sharp edges to make it flush with the surfaces, etc and complete as per manufacturer's specification.				
	Priming:- Mixing and applying R 3 E, solvent free epoxy primer in one coat using a brush or short / medium pile roller by ensuring a uniform coating is achieved and compensated the differences in surface porosity, allowing it to dry for 24 Hrs, etc and complete as per manufacturer's specification.				
	Epoxy Topping :- The individual components of Ardex R 25 CE are thoroughly stirred before mixing together. First the resin and hardener is mixed thoroughly using a spiral-mixing paddle in a slow speed drill. Mix the pigment and mix it for some time, now add the required amount of filler and mix till a consistent homogenous mix is obtained. Lay the mixed ARDEX R25 CE on the primed floor using a trowel to achieve an average desired 2mm thickness as per the specification, As this is in progress the surface should be gently rolled using a spike roller to remove air bubbles and blend any trowel marks. This is allowed to cure for 8-12 hrs. Foot traffic can be allowed after 24 hrs. Full cure is achieved after 7 days	m ²	732.00		
71	Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of the Architect	m ²	2258		

Sl. No.		UNIT	QTY	RATE	AMOUNT
72	Providing & fixing 52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc	m ²	702		
73	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of the Architect	m ²	390		
74	Providing and fixing GI Clip in Metal Ceiling System of 600x600 mm module which includes providing and fixing 'C' wall angle of size 20x30x20 mm made of 0.5 mm thick pre painted steel along the perimeter of the room with help of nylon sleeves and wooden screws at 300 mm center to centre, suspending the main C carrier of size 10x38x10 mm made of G.I steel 0.7 mm thick from the soffit with help of soffit cleat 37x27x25x1.6 mm, rawl plugs of size 38x12 mm and C carrier suspension clip and main carrier bracket at 1000 mm c/c. Inverted triangle shaped Spring Tee having height of 24 mm and width of 34 mm made of GI steel 0.45 mm thick is	m ²	7956		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	then fixed to the main C carrier and in direction perpendicular to it at 600 mm centers with help of suspension brackets. Wherever the main C carrier and spring T have to join, C carrier and spring T connectors have to be used. All sections to be galvanized @ 120 gms/sqm (both side inclusive), fixing with clip in tiles into spring 'T' with :				
	GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of G I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation				
75	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	m2	350		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>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,</p>				
	<p>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 Architect but excluding the cost of painting with:</p>				
	<p>8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	TOTAL(PART II BW& FINISHING)				
	TOTAL (PART I & PART II BW& FINISHING)				
	PART 1 - HOSTEL BLOCK	UNIT	QTY	RATE	AMOUNT
76	<p>Embossed panel door (Embossed panel only one side) Providing and fixing of Embossed panel steel door at all levels from ISO 9001-2000 certified Manufacturer. The metal doors should be made from galvanised steel stretched level sheet with designer panels of varied choice. Single /Double leaf to required sizes and approved make shakti Hormann or equivalent which consists of frame, shutter, infill and finish as detailed below and conforming to IS 277.</p>				
	<p>Door frame shall be single rebate profile of size 100x57 mm made out of 1.2mm (18 gauge) thick galvanized steel sheet . Door frames shall be MITERED and field assembled with self tabs. Frames should be prepared for receiving suitable hardware as scheduled and should have necessary reinforcement to withstand regular wear and tear. All provision should be mortised, drilled and tapped for receiving right fastners as recommended by the manufacturer. Rubber door silencers should be provided on the striking jamb. Frames shall be secured to openings with anchor fastners or expansion shields on a masonry wall opening. Once the frame is installed it should be grouted with cement & sand slurry.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Door leaf should be 46mm thick fully flush double skin door with raised embossed panel on one side & plain sheet on the inner side. Door leaf shall be manufactured from 0.8mm (22 guage) thick galvanised steel sheet. The internal construction of the door shall be rigid with steel stiffeners/ pads and reinforcement. The infill material shall be polyurethane foam of appropriate denisty or polystyrene molded sheets glued and interlocked with a bending radius of 1.4mm. All doors should be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers.</p>				
	<p>All doors and frames shall be finished with etched primer with stove zinc phosphate primer and final finish coated with approved wood stainer as per consulatants choice. The frames and shutters shall have passed minimum salt spray test of 250hours.</p>				
	<p>Rate should include complete for supply and installation of door and hardware set for the below mentioned sizes from a single supplier</p>				
	<p>Steel Door Double leaf of size : 1500x2100 with Embossed Panel at out side with hardware set # 2</p>	No	3		
	<p>Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)</p>				
	<p>Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)</p>				
	<p>EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)</p>				
	<p>Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Pull handle D type TGDI-D300, b/b 22dia, in SSS 304 (2 pair)				
	Door closer TS 89 EN 2-6 with Std. arm (1 each)				
	Lever action flush bolt 3101-1, L=300mm, SC (1 each)				
	Floor stop half dome 3108, 45dia SSS (2 each)				
	Self adhesive sponge seal for frames 188S, Black 5.7(1)				
77	General doors - Painted				
	Providing and fixing of Hollow metal door at all levels from ISO 9001-2000 certified Manufacturer. All hollow metal general doors with or without vision panel. Pressed Galvanised steel Single /Double leaf to required sizes of approved make shakti Hormann or approved equivalent which consists of frame, shutter, infill and finish as detailed below and conforming to IS 277.				
	Door frame shall be Single rebate profile of size 100 x 57 mm made out of 1.20mm thick galvanised steel sheet (18 gauge). Frames should be Mitered and field assembled with self tabs. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Once frame installed should be grouted with cement slurry if recommended on the clear masonry opening.				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Door leaf should be 46mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 0.8mm (22 guage) minimum thick galvanised steel sheet. The internal construction of the door should be rigid with steel stiffeners/ pads and reinforcement. The infill material shall be resin bonded honeycomb core. All doors should be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. The edges should be interlocked with a bending radius of 1.4mm. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf. 450x750mm Vision lite wherever applicable should be asper joinery details with a screw on glass beeding on the inside. The glass should be 5mm clear toughned glass. 350x450mm Louvers when recommended should be site proof and shall be flush fixed on the external surface.				
	All doors and frames shall be finished with polyurethane aliphatic grade paint of approved colour. The door leaf and frame shall have passed minimum 250 hours of salt spre y test.				
	Rate should include supply and installation of door and hardware set as mentioned in the door and hardware schedule.				
a	Steel Door Single leaf of size : 900x2100 without vision panel with hardware set # 1	No	2		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (1 each)				
	Door closer TS 72 EN 2-4 with Std. arm (1 each)				
	Self adhesive sponge seal for frames 188S, Black 5.7(1)				
b	Steel Door Single leaf of size : 1000x2100 with vision panel 450x750 with hardware set # 1	No	3		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (1 each)				
	Door closer TS 72 EN 2-4 with Std. arm (1 each)				
	Self adhesive sponge seal for frames 188S, Black 5.7(1)				
c	Steel Door Single leaf of size : 1000x2100 without vision panel with hardware set # 1	No	5		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (1 each)				
	Door closer TS 72 EN 2-4 with Std. arm (1 each)				
	Self adhesive sponge seal for frames 188S, Black 5.7(1)				
d	Steel Door Single leaf of size : 800x2100 with Louver on Bottoml 350x450 with hardware set # 4	No	2		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (1 each)				
	Push Plate 1100, size 100 x 400 x 1.25mm, SS 304 (1each)				
	Door closer TS 72 EN 2-4 with Std. arm (1 Each)				
	Floor stop half dome 3108, 45dia SSS (2 Each)				
	Male Sign Plate 3020-M, size 125 x 125mm, SS 304 (1 each)				
e	Steel Door Single leaf of size : 800x2100 without vision panel with hardware set # 7	No	5		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1 each)				
	Lever Handle Pure WC 8100/6501/7122 -S114, with roses & esc. SSS (1 set)				
	Coat Hook (SET) (1 each)				
	Wall Stop L=70mm (1 each)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
37	2hr. Fire rated hollow metal doors - Painted				
	<p>Providing and fixing of Hollow metal fire rated doors as per IS 3614 part-1 & part-2 for stability and integrity. Pressed Galvanized steel conforming to IS 277 with the following specification. Recommended fire door shall have doors tested at CBRI or ARAI for maximum rating of 2hrs with vision panel. Test certificates should be available for vision lites /panels as part of the fire door assembly. Independent glass test certificates will not be accepted. Manufacturer test certificate shall cover doors both single and double leaf and all doors supplied should be within the tested specimen, deviation in specification and sheet</p>				
	<p>Door frame shall be double rebate profile of size 143 x 57 mm made out of 1.60mm (16gauge) minimum thick galvanized steel sheet. Frames shall be Mitered and field assembled with self tabs. All provision should be mortised, drilled and tapped for receiving appropriate hardware. Rubber door silencers should be provided on the striking</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Door leaf shall be 46mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 1.2mm (18guage) minimum thick galvanised steel sheet. The internal construction of the door should be rigid reinforcement pads for receiving appropriate hardware. The infill material shall be resin bonded honeycomb core. All doors shall be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. The edges should be interlocked with a bending radius of 1.4mm. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf. Vision lite wherever applicable should be provided as per manufacturers recommendation with a beeding and screws from inside. The glass should be 6mm clear borosilicate fire rated glass of relavant rating of the door.</p>				
	<p>All doors and frames shall be finished with polyurethane aliphatic grade paint of approved colour. The door leaf and frame shall have passed minimum 250 hours of salt spreya test.</p>				
	<p>Rate should include supply and installation of door and hardware set as mentioned in the door and hardware schedule.</p>				
a	<p>2Hrs Fire Rated Door Single leaf of size : 600x2100 Without vision panel with hardware set # 3</p>	No	5		
	<p>Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)</p>				
	<p>Fire rated Mortice sash lock 281, 55mm BS/20mm sq. fornd, SSS (1 each)</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Lever Handle Pure 8100/6501 -S114, with roses & esc. SSS (1 each)				
	Door closer TS 89 EN 2-6 with Std. arm (1 Each)				
	Floor stop half dome 3108, 45dia SSS (1 Each)				
	Self adhesive sponge seal for frames 188S, Black 5.2(1)				
b	2Hrs Fire Rated Door Single leaf of size : 900x2100 Without vision panel with hardware set # 6	No	4		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1 each)				
	Flush Pull Handle 1208, Rectangular, SSS (1 each)				
78	Providing and fixing staircase handrails using stainless steel (Grade 304) 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 drawing and specification and as directed by the HLL	kg	75		

Sl. No.		UNIT	QTY	RATE	AMOUNT
79	Providing and fixing staircase handrail using M.S sections by welding the members as per the drawings and specification as directed by the Architect including applying a priming coat of zinc chromate primer (For payment - weight of MS structural members alone shall be considered excluding accessories such as nuts, bolts, fasteners etc.).	kg	26		
ALUMINIUM & GLAZING					
80	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of the architect. (Glazing, paneling and dash fasteners to be paid for separately) :				
a)	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron) For fixed portion	kg	45		
b)	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron) For Shutters	kg	70		

Sl. No.		UNIT	QTY	RATE	AMOUNT
81	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of HLL With float glass panes of 4.0 mm thickness	M ²	5		
82	Providing and fixing stainless steel (SS 304 grade) adjustable friction window stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of the Architect. Size- 205x 19mm	No	10		
83	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of the HLL Size 255x 19mm	No	2		
84	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete				
	Powder coating minimum thickness 50 micron aluminium	No	10		
	PART 2- RESEARCH BLOCK				
85	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover	m ²	10		

Sl. No.		UNIT	QTY	RATE	AMOUNT
86	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. Providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by the Architect (area of grill to br measured)	m ²	10		
87	Providing and fixing staircase handrails using stainless steel (Grade 304) 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 drawing and specification and as directed by the Architect (For payment - weight of stainless steel members alone shall be considered excluding accessories such as nuts, bolts, fasteners etc.)	kg	50		

Sl. No.		UNIT	QTY	RATE	AMOUNT
88	Providing and fixing staircase handrail using M.S sections by welding the members as per the drawings and specification as directed by the Architect including applying a priming coat of zinc chromate primer (For payment - weight of M S members alone shall be considered excluding accessories such as nuts, bolts, fasteners etc.)	kg	25		
89	General doors - Painted				
	Providing and fixing of Hollow metal door at all levels from ISO 9001-2000 certified Manufacturer. All hollow metal general doors with or without vision panel. Pressed Galvanised steel Single /Double leaf to required sizes of approved make shakti met-dor or approved equivalent which consists of frame, shutter, infill and finish as detailed below and conforming to IS 277.				
	Door frame shall be Single rebate profile of size 100 x 57 mm made out of 1.20mm thick galvanised steel sheet (18 gauge). Frames should be Mitered and field assembled with self tabs. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Once frame installed should be grouted with cement slurry if recommended on the clear masonry opening.				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Door leaf should be 46mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 0.8mm (22 guage) minimum thick galvanised steel sheet. The internal construction of the door should be rigid with steel stiffeners/ pads and reinforcement. The infill material shall be resin bonded honeycomb core. All doors should be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. The edges should be interlocked with a bending radius of 1.4mm. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf. 200x300mm Vision lite wherever applicable should be asper joinery details with a screw on glass bedding on the inside. The glass should be 5mm clear toughned glass. 450x450mm Louvers when recommended should be site proof and shall be flush fixed on the external surface.</p>				
	<p>All doors and frames shall be finished with polyurethane aliphatic grade paint of approved colour. The door leaf and frame shall have passed minimum 250 hours of salt spray test.</p>				
	<p>Rate should include supply and installation of door and hardware set as mentioned in the door and hardware schedule.</p>				
a)	<p>Steel Door Single leaf of size : 800x2100 without vision panel with hardware set # 11</p>	No	5		
	<p>Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)</p>				
	<p>Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1each)</p>				
	<p>Lever Handle Pure WC 8100/6501/7122 -S114, with roses & esc. SSS (1each)</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Coat Hook (SET) (1)				
	Wall Stop L=70mm (1 each)				
b)	Steel Door Single leaf of size : 1000x2100 with vision panel 450x750 with hardware set # 4	No	5		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Lever Handle Pure 8100/6501 -S114, with roses & esc. SSS (1 set)				
	Door closer TS 89 EN 2-6 with Std. arm (1 each)				
	Floor stop half dome 3108, 45dia SSS (1 each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
c)	Steel Door Single leaf of size : 900x2100 with Louve on Bottoml 450x450 with hardware set # 7	No	5		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (1each)				
	Push Plate 1100, size 100 x 400 x 1.25mm, SS 304 (1each)				
	Door closer TS 72 EN 2-4 with Std. arm (1each)				
	Floor stop half dome 3108, 45dia SSS (1each)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Male Sign Plate 3020-M, size 125 x 125mm, SS 304 (1each)				
d)	Steel Door Single leaf of size : 900x2100 without vision panel with hardware set # 5	No	3		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (1each)				
	Door closer TS 72 EN 2-4 with Std. arm (1each)				
	Floor stop half dome 3108, 45dia SSS (1each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
e)	Steel Door Single leaf of size : 900x2100 without vision	No	10		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Lever Handle Pure 8100/6501 -S114, with roses & esc. SSS (1 set)				
	Door closer TS 89 EN 2-6 with Std. arm (1 each)				
	Floor stop half dome 3108, 45dia SSS (1 each)				
	Self adhesive sponge seal for frames 188S, Black (1)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
f)	Steel Door Single leaf of size : 1000x2100 without vision panel with hardware set # 9	No	3		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (3 each)				
	Mortice WC lock 775, 55mm BS/20mm sq. fornd, SSS (1each)				
	WC Cylinder 5pin one side thumb turn and one side indicator L=65mm (1each)				
	Lever Handle Pure 8100/6501 -S114, with roses & esc. SSS (1 set)				
	GBDI D-600 Grab Bar of Length 610mm, 25mm Dia, SSS (1 each)				
	Disable Sign Plate 3020-D, size 125 x 125mm, SS 304 (1 each)				
g)	Steel Door Double leaf of size : 1200x2100 with vision panel 200x300 with hardware set # 3	No	5		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice sash lock 271, 55mm BS/20mm sq. fornd, SSS (1each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Lever Handle Pure 8100/6501 -S114, with roses & esc. SSS (1 set)				
	Lever action flush bolt 3101-1, L=300mm, SC (1 each)				
	Door closer TS 89 EN 2-6 with Std. arm (1 each)				
	Floor stop half dome 3108, 45dia SSS (2 each)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Self adhesive sponge seal for frames 188S, Black (1)				
h)	Steel Door Double leaf of size : 1200x2100 with vision panel 200x300 with hardware set # 6	No	3		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (2 each)				
	Push Plate 1100, size 100 x 400 x 1.25mm, SS 304 (2 each)				
	Door closer TS 89 EN 2-6 with Std. arm (1 each)				
	Lever action flush bolt 3101-1, L=300mm, SC (1 each)				
	Mortised auto door bottom 355A for metal doors 36", Aluminum (2 each)				
	Floor stop half dome 3108, 45dia SSS (2 each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
i)	Steel Door Double leaf of size : 1800x2100 with vision panel 450x750 with hardware set # 2	No	5		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (2 pair)				
	Door closer TS 89 EN 2-6 with Std. arm (2each)				
	Lever action flush bolt 3101-1, L=300mm, SC (2 each)				
	Floor stop half dome 3108, 45dia SSS (1each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
j)	Steel Door Double leaf of size : 2000x2100 with vision panel 450x750 with hardware set # 2	No	4		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (2 pair)				
	Door closer TS 89 EN 2-6 with Std. arm (2each)				
	Lever action flush bolt 3101-1, L=300mm, SC (2 each)				
	Floor stop half dome 3108, 45dia SSS (1each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
k)	Steel Door Double leaf of size : 2000x2100 with vision panel 450x750 with hardware set # 3	No	2		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Mortice sash lock 271, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Lever Handle Pure 8100/6501 -S114, with roses & esc. SSS (1 set)				
	Lever action flush bolt 3101-1, L=300mm, SC (1 each)				
	Door closer TS 89 EN 2-6 with Std. arm (1 each)				
	Floor stop half dome 3108, 45dia SSS (2 each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
l)	Steel Door Double leaf of size : 2100x2100 with vision panel 450x750 with hardware set # 2	No	1		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (2 pair)				
	Door closer TS 89 EN 2-6 with Std. arm (2each)				
	Lever action flush bolt 3101-1, L=300mm, SC (2 each)				
	Floor stop half dome 3108, 45dia SSS (1each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
m)	Steel Door Double leaf of size : 1100x2100 with vision panel 450x750 with hardware set # 2	No	5		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (2 pair)				
	Door closer TS 89 EN 2-6 with Std. arm (2each)				
	Lever action flush bolt 3101-1, L=300mm, SC (2 each)				
	Floor stop half dome 3108, 45dia SSS (1each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
n)	Steel Door Double leaf of size : 1500x2100 with vision panel 450x750 with hardware set # 2	No	2		
	Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (6 each)				
	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS (1 each)				
	EP Cyl. 3525, 5pin both side key Length=70mm, SNP (1 each)				
	Escutheions ZS 6612 for Europrofile cylinder SSS (1 pair)				
	Pull handle D type TGDI-D3001, 22dia, SSS 304 (single side) (2 pair)				
	Door closer TS 89 EN 2-6 with Std. arm (2each)				
	Lever action flush bolt 3101-1, L=300mm, SC (2 each)				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Floor stop half dome 3108, 45dia SSS (1each)				
	Self adhesive sponge seal for frames 188S, Black (1)				
90	2hr. Fire rated hollow metal doors - Painted				
	<p>Providing and fixing of Hollow metal fire rated doors as per IS 3614 part-1 & part-2 for stability and integrity. Pressed Galvanized steel conforming to IS 277 with the following specification. Recommended fire door shall have doors tested at CBRI or ARAI for maximum rating of 2hrs with vision panel. Test certificates should be available for vision lites /panels as part of the fire door assembly. Independent glass test certificates will not be accepted. Manufacturer test certificate shall cover doors both single and double leaf and all doors supplied should be within the tested specimen, deviation in specification and sheet thickness other than what is mentioned in the test certificates are not allowed. Proper label confirming the type of door and the hourly rating is mandatory. Approved manufacturer Shakti Met-dor or approved equivalent.</p>				
	<p>Door frame shall be double rebate profile of size 143 x 57 mm made out of 1.60mm (16gauge) minimum thick galvanized steel sheet. Frames shall be Mitered and field assembled with self tabs. All provision should be mortised, drilled and tapped for receiving appropriate hardware. Rubber door silencers should be provided on the striking jamb. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Once frame installed should be grouted with cement & sand slurry necessary for fire doors on the clear masonry opening.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>Door leaf shall be 46mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 1.2mm (18guage) minimum thick galvanised steel sheet. The internal construction of the door should be rigid reinforcement pads for receiving appropriate hardware. The infill material shall be resin bonded honeycomb core. All doors shall be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. The edges should be interlocked with a bending radius of 1.4mm. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf. 200x300mm Vision lite wherever applicable should be provided as per manufacturers recommendation with a bedding and screws from inside. The glass should be 6mm clear borosilicate fire rated glass of relavant rating of the door.</p>				
	<p>All doors and frames shall be finished with polyurethane aliphatic grade paint of approved colour. The door leaf and frame shall have passed minimum 250 hours of salt spreya test.</p>				
	<p>Rate should include supply and installation of door and hardware set as mentioned in the door and hardware schedule.</p>				
	<p>2Hrs Fire Rated Door Single leaf of size : 900x2100 with vision panel 200x300 with hardware set # 10</p>	No	4		
	<p>Hinges BB 4330, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SS 304 (63each)</p>				
	<p>Mortice Shaft Dead lock with Allen key 8681, SSS (1 each)</p>				
	<p>Flush Pull Handle 1208, Rectangular, SSS (1 each)</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
91	<p>Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including unctional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including</p>	m ²	25		
	<p>:b) Fabricating and supplying serrated M.S. hot dip galvanised /Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimentional movement for achieving perfect verticality and fixing ructural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment , including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass. d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.</p>				
	<p>e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory,</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineerin- Charge. Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this subhead. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.</p>				
	<p>Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately. The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	1. Performance Laboratory Test for Air Leakage Test (-50pa to – 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr” 2. Static Water Penetration Test. (50pa to 1500pa) as per ASTM E- 331-09 testing method for a range up to 2000 ml.” 3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml				
	4. Structural Performance Deflection and deformation by static air pressure test (1.5 times desing wind pressure without any failure) as per ASTM E-330-10 testing method for a range upto 50 mm” 5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test” Tests to be conducted on site 6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000ml				
92	Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in-Charge. For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.(Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevent Item*).	m ²	30		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement				
93	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including unctional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:	m2	10		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>b) Fabricating and supplying serrated M.S. hot dip galvanised/Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing ructural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.</p>				
	<p>c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment , including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by the Architect</p>				
	<p>The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineerin- Charge. Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this subhead.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places. Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately. The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories</p>				
	<p>1. Performance Laboratory Test for Air Leakage Test (-50pa to – 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr” 2. Static Water Penetration Test. (50pa to 1500pa) as per ASTM E- 331-09 testing method for a range up to 2000 ml.” 3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>4. Structural Performance Deflection and deformation by static air pressure test (1.5 times desing wind pressure without any failure) as per ASTME-330-10 testing method for a range upto 50 mm” 5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test” Tests to be conducted on site 6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000ml</p>				
94	<p>Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthned clear float glass 6mm thick, spacer tube12mm wide, dessicants,</p>	m2	10		
	<p>including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.26.2) For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.				
95	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the HLL	m2	10		

Sl. No.		UNIT	QTY	RATE	AMOUNT
96	<p>Designing, fabricating, testing, protection, installing and fixing in position of Aerofoil solar shading system of movable with bearing at both the ends of individual louvers. Individual louvers to be placed in a vertical configuration with bearing at both the ends to make them freely movable due to natural wind pressure and velocity in the area. The finishing pricing quoted is for mill finished aluminium & the louver blade is of wooden finish shade. The Blade is of AF600 with profile size of 600mm X 100mm & the thickness of the sheet metal aluminium Alloy 3105H16 is 0.90mm thick. The thickness of the aluminium plate is 3mm, the thickness of the aluminium pipe of 50mm dia is 1.50mm thick & the thickness of the aluminium End cap is of 3 mm thick.</p>	No	30		
	<p>Provide mullion/ Box Profiles at the top & bottom of the blade. End caps & Axles are used to make the blade movable -2 end caps per blade. Each end cap will be delivered with an axle set containing a stainless steel axel rings, plate screws & necessary accessories. The wind load is to be worked out on the basis of local peak velocity pressure of 2000pa, according to EN1991-1-4. The Transportation charge, installation charge & all taxes are also included in this</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
97	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including: a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.	m ²	10		
	b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	<p>c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s</p>				
	<p>The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places</p>				

Sl. No.		UNIT	QTY	RATE	AMOUNT
98	Providing and fixing fixed Cum operable door using DORMA EVI or equivalent Finished Profile AT 44 for Fixed Glass 10mm toughened glass for Door shutter frame with DORMA EV1 Finish profile AT 50 and MRT with Door shutter in 10mm thick toughened glass with DORMA Junior office Hinges 3 nos complete with DORMA Studio gala Lockset or equivalent Studio gala Lever handle euro profile and DORMA TS 91 Door closer or equivalent with saddle plate				
a)	Partition	m ²	25		
b)	Door (1000 X 2100 mm)	No	3		
	Plumbing works				
	PART 1 - HOSTEL BLOCK	UNIT	QTY	RATE	AMOUNT
1	Providing, Fixing, testing and commissioning at site white vitreous china Pedestal type water closet (European type) with ISI marked black solid plastic seat and lid, 10 litre low level white vitreous china flushing cistern and C.P. flush bend with fittings & C.I brackets, 40mm flush bend, over flow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:	no	103		
2	Providing, Fixing, testing and commissioning at site White Vitreous China Flat back wash basin size 550x400 mm Wash Basin with C.I. brackets, 15mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required	no	100		

Sl. No.		UNIT	QTY	RATE	AMOUNT
3	Providing, Fixing, testing and commissioning of Oval Wash basin Counter Top 520 X 450mm size in already built slab with necessary chipping , chamfering providing supports and finishing the same including supplying and fixing 32mm CP brass waste, 15mm CP brass pillar tap , 32mm PVC waste pipe and 15mm heavy duty PVC connection, complete.	no	8		
4	Providing , Fixing & testing white vitreous china battery based infrared sensor operated Urinal of approx. size 610X390X370 mm having pre & post flushing with water (250 ml & 500 ml consumption),having water inlet from back side, incuding fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	no	2		
5	Providing, Fixing, testing and commissioning at site, 15mm C.P. Brass Angle valves for basin mixer and geyser points of approved quality conforming to IS: 8931a 15mm nominal bore.	no	344		
6	Providing, Fixing, testing and commissioning at site ablution Health Spray Faucet with wall hook and 1 mtr. Chrome plated PVC hose pipe , etc. complete in all respects.	no	103		
7	Providing, Fixing, testing and commissioning of Hot & cold CP wall mixer unit with long bend pipe for overhead shower with all accessories. CP elbow and Overhead shower 60mm (2.5") with revolving joint and shower arm with wall flanges etc complete.	no	98		
8	Providing and Fixing 600x450 mm beveled edge Mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.,	no	108		

Sl. No.		UNIT	QTY	RATE	AMOUNT
9	Providing and Fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	no	103		
10	Providing, Fixing, testing and commissioning at site C.P. brass 15mm nominal bore long body bib cock of approved quality conforming to IS Standards and weighing not less than 690 gms.	no	5		
11	Providing and Fixing PTMT Towel rail 600mm long with total length of 645mm, 78mm wide and effective height of 88mm, weighing not less than 190gms complete with brackets fixed to wooden cleats with C.P. brass screws with concealed fittings arrangement of approved quality and colour.	no	103		
12	Providing and Fixing PTMT Towel Ring trapezoidal shape 215mm long, 200mm wide with minimum distance of 37mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88gms	no	4		
13	Providing, Fixing, testing and commissioning Bottle trap 38mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling, 77mm breadth with 25mm minimum water seal, weighing not less than 263 gms for Wash Basin and Sink	no	108		
14	Providing and fixing CP Brass Toilet paper Holder as per drawing	no	103		
15	Providing and Fixing CP Robe Hook with fixing screws as per drawing	no	133		

Sl. No.		UNIT	QTY	RATE	AMOUNT
16	Providing, Fixing, testing and commissioning at site in position uPVC pipe (SWR-Type B) (IS:13592) With Rubber Ring or Solvent Welded fittings with bosses where required e.g. tees, bends, clamps, coupling, door bends, junctions, cowls, etc., laid under floor/fixed on walls, and in pipe shafts, universal clamps & anchor fasteners(8mm), threaded rod (8mm),nuts, washers, wherever required etc. complete. (In Shaft)				
16.01	110 mm O.D. (SWR Type-B)	Mtr	415		
16.02	75 mm O.D. (SWR Type-B)	Mtr	390		
17	Providing, Fixing, testing and commissioning at site in position uPVC pipe (SWR-Type A) (IS:13592) or (IS : 4985) With Rubber Ring or Solvent Welded fittings with bosses where required e.g. tees, bends, clamps, coupling, etc. complete. (For Rain water pipes)				
17.01	110mm O.D Type A	Mtr	265		
17.02	63 mm O.D (6Kg/cm ²) Vent pipe in shaft	Mtr	340		
18	Providing, Fixing, testing and commissioning at site in position u PVC pipe of 6Kg/sq.cm (IS:4985) including PVC fittings with bosses where required e.g. tees, bends, clamps, coupling and adapters and jointing with adhesive approved by fitting manufactures including cutting and making good the walls and floors or surface mounted with clamps as required at site universal clamps & anchor fasteners(8mm) , threaded rod(8mm),nuts, washers, wherever required etc. complete. (For Internal waste line)				
18.01	40 mm O.D.	Mtr	125		
18.02	50 mm O.D.	Mtr	350		
18.03	75 mm O.D.	Mtr	90		
18.04	110mm O.D	Mtr	230		

Sl. No.		UNIT	QTY	RATE	AMOUNT
19	Providing, Fixing, testing and commissioning at site in position uPVC fabricated floor trap , bose tee /deep seal floor trap with suitable SS gratings supportings on GI slotted rails (1.6mmthick)full threaded rod, anchor fasteners etc. 50/75 mm dia outlet	no	110		
20	Providing, Fixing, testing and commissioning at site 125 mm grating with waste hole. For multi inlet trap of “P” trap complete in all respects	no	109		
21	Providing, Fixing, testing and commissioning 180 X 180 cast iron grating rain water outlet	no	8		
22	Providing and Fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4, UV stabilized and anti – microbial fusion welded, having thermal stability for hot & Cold water including all PP-R plain & brass threaded polypropylene random fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same and testing of joints complete as per direction of the Architect. Concealed work , including cutting chases and making good the walls etc.,				
22.01	PN – 16 Pipe 20mm OD (Internal)	Mtr	995		
22.02	PN – 16 Pipe 25mm OD (Internal)	Mtr	1270		
22.03	PN – 16 Pipe 32mm OD (Internal)	Mtr	70		
23	Providing & Fixing 3 layer PP-R (Poly propylene Random copolymer)pipes U V stabilized & anti – microbial fusion welded, having thermal stability for hot & cold water supply , including all PP-R plain & brass threaded polypropylene random fittings, including trenching ,refilling & testing of joints complete as per direction of Engineer in Charge.				
23.01	PN – 16 Pipe 25mm OD (External in shaft)	Mtr	140		

Sl. No.		UNIT	QTY	RATE	AMOUNT
23.02	PN – 16 Pipe 32mm OD (External in shaft)	Mtr	75		
23.03	PN – 16 Pipe 40mm OD (External in shaft)	Mtr	65		
23.04	PN – 16 Pipe 63mm OD (External in shaft)	Mtr	95		
23.05	PN – 16 Pipe 75mm OD (External in shaft)	Mtr	20		
24	Providing, Fixing at site in position uPVC Pipes (as per ASTM D – 1785 sch-40) of approved make For Cold Water Supply , complete with all necessary (ASTM D – 2466/2467) fittings (elbows, unions, tees, reducers, couplings, nipples etc) (External / Inshaft)				
24.01	20mm nominal outer dia pipes	Mtr	75		
24.02	25mm nominal outer dia pipes	Mtr	130		
24.03	32mm nominal outer dia pipes	Mtr	160		
24.04	40mm nominal outer dia pipes	Mtr	90		
24.05	50mm nominal outer dia pipes	Mtr	130		
24.06	65mm nominal outer dia pipes	Mtr	95		
25	Providing and Fixing Ball Valves (Brass) of approved quality, High or low pressure, with plastics floats complete:				
25.01	15mm nominal bore	no	115		
25.02	20mm nominal bore	no	66		
25.03	25mm nominal bore	no	1		
25.04	32mm nominal bore	no	3		
25.05	40mm nominal bore	no	8		
25.06	50mm nominal bore	no	7		
25.07	65mm nominal bore	no	6		

Sl. No.		UNIT	QTY	RATE	AMOUNT
26	Providing,Fixing,testing and commissioning at site GI Slotted Rail Brackets ,hangers,supports and drilling holes to suit the insertion of pipe clamps, deburring etc.,as per detailed drawing for supporting soil, waste & rain water pipes & water supply pipes in shafts with suitable GI clamps,bolts,anchor bolts nuts & washers fixed on shaft walls/outer walls etc.The quoted rate shall include with the cost of brackets galvanizing with zinc alloy of 1.6mm thick confirmed to IS 1239 etc.,complete as directed by the HLL				
26.01	Electro Galvanized (In shaft and dry interior areas)	Mtr	265		
26.02	Hot dip galvanized (Fully exposed to weather and wet areas)	Mtr	175		
27	Providing, Fixing, testing and commissioning at site in positions automatic 3/4"(20mm) dia Air Release Valves of approved quality and make on the top of the vertical water supply pipes as per specification and drawings	no	20		
	TOTAL (PART I PLUMBING)				
	PART 2 - RESEARCH BLOCK				
28	Providing, Fixing, testing and commissioning at site white vitreous china Pedestal type water closet (European type) with ISI marked black solid plastic seat and lid,10 litre low level white vitreous china flushing cistern and C.P. flush bend with fittings & C.I brackets,40mm flush bend, over flow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:	no	30		

Sl. No.		UNIT	QTY	RATE	AMOUNT
29	Providing, Fixing, testing and commissioning at site Handicaped Floor mounting water closet with P or S trap & its all fittings like rag bolts, solid plastic seat cover etc. , and Suitable standard flushing cistern, flexible connection tube complete including cutting and making good the walls and floors wherever required including one hinged hand rails, two grab bars, CP brass pillar tap with spatula lever, waste coupling etc. to make the toilet functional for special need persons including cutting and making good the walls and floor, etc. complete.	no	6		
30	Providing, Fixing, testing and commissioning at site Wash Basin with C.I. brackets, 15mm C.P. brass pillar taps,32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required				
30.01	White Vitreous China Flat back wash basin size 550x400 mm with single 15mm C.P. brass pillar tap.	no	33		
30.2	White Vitreous China Flat back wash basin size 450X300 mm with single 15mm C.P. brass pillar tap.	no	2		
31	Providing , Fixing & testing white vitreous china battery based infrared sensor operated Urinal of approx. size 610X390X370 mm having pre & post flushing with water (250 ml & 500 ml consumption),having water inlet from back side, incuding fixing to wall with suitable brackets all as per manufacturers specification and direction of the Architect.	no	15		
32	Providing, Fixing, testing and commissioning at site, 15mm nominal bore C.P. Brass Angle valves for basin mixer and geyser points of approved quality conforming to IS: 8931	no	128		

Sl. No.		UNIT	QTY	RATE	AMOUNT
33	Providing, Fixing, testing and commissioning at site ablution Health Spray Faucet with wall hook and 1 mtr. Chrome plated PVC hose pipe , etc. complete in all respects.	no	36		
34	Providing and Fixing 600x450 mm beveled edge Mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.,	no	42		
35	Providing and Fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	no	41		
36	Providing, Fixing, testing and commissioning at site 15mm nominal bore C.P. brass long body bib cock of approved quality conforming to IS Standards and weighing not less than 690 gms.	no	52		
37	Providing and Fixing 450mm long PTMT Towel rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170gms complete with brackets fixed to wooden cleats with C.P. brass screws with concealed fittings arrangement of approved quality and colour.	no	41		
38	Providing and Fixing PTMT Towel Ring trapezoidal shape 215mm long, 200mm wide with minimum distance of 37mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88gms	no	17		

Sl. No.		UNIT	QTY	RATE	AMOUNT
39	Providing, Fixing, testing and commissioning at site Stainless Steel AISI 304 (18/8) 470X420mm Kitchen Sink without Drain Board with depth 178mm.as pe IS: 13983 with C.I. brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required.	no	28		
40	Providing, Fixing, testing and commissioning at site Sink cock wall mounted with swivel spout and wall flange, trending,cutting and making good the walls wherever required.	no	28		
41	Providing, Fixing, testing and commissioning Bottle trap 38mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling, 77mm breadth with 25mm minimum water seal, weighing not less than 263 gms for Wash Basin and Sink	no	63		
42	Providing and fixing CP Brass Toilet paper Holder as per drawing	no	37		
43	Providing and Fixing CP Robe Hook with fixing screws as per drawing	no	36		
44	Providing, Fixing, testing and commissioning at site in position uPVC pipe (SWR-Type B) (IS:13592) With Rubber Ring or Solvent Welded fittings with bosses where required e.g. tees, bends, clamps, coupling, door bends, junctions, cowls, etc., laid under floor/fixed on walls, and in pipe shafts, universal clamps & anchor fasteners(8mm), threaded rod (8mm),nuts, washers, wherever required etc. complete.				
	In Shaft				
44.01	110 mm O.D. (SWR Type-B)	Mtr	130		
44.02	75 mm O.D. (SWR Type-B)	Mtr	242		
	In Ceiling				

Sl. No.		UNIT	QTY	RATE	AMOUNT
44.03	75 mm O.D. (SWR Type-B)	Mtr	50		
45	Providing, Fixing, testing and commissioning at site in position uPVC pipe (SWR-Type A) (IS:13592) or (IS : 4985) With Rubber Ring or Solvent Welded fittings with bosses where required e.g. tees, bends, clamps, coupling, etc. complete. (For Rain water pipes)				
45.01	110mm O.D Type A	Mtr	150		
45.02	63 mm O.D (6Kg/cm2) Vent pipe in shaft	Mtr	65		
46	Providing, Fixing, testing and commissioning at site in position u PVC pipe of 6Kg/sq.cm (IS:4985) including PVC fittings with bosses where required e.g. tees, bends, clamps, coupling and adapters and jointing with adhesive approved by fitting manufactures including cutting and making good the walls and floors or surface mounted with clamps as required at site universal clamps & anchor fasteners(8mm) , threaded rod(8mm),nuts, washers, wherever required etc. complete. (For Internal waste line)				
46.01	40 mm O.D.	Mtr	102		
46.02	50 mm O.D.	Mtr	92		
46.03	75 mm O.D.	Mtr	200		
46.04	110mm O.D	Mtr	160		

Sl. No.		UNIT	QTY	RATE	AMOUNT
47	Providing, Fixing, testing and commissioning at site in position uPVC fabricated floor trap , bose tee /deep seal floor trap with suitable SS gratings supportings on GI slotted rails (1.6mmthick) full threaded rod, anchor fasteners etc. 50/75 mm dia outlet	no	110		
48	Providing, Fixing, testing and commissioning at site 125 mm grating with waste hole. For multi inlet trap of “P” trap complete in all respects	no	110		
49	Providing, Fixing, testing and commissioning 180 X 180 cast iron grating rain water outlet	no	5		
50	Providing and Fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4, UV stabilized and anti – microbial fusion welded, having thermal stability for hot & Cold water supply, including all PP-R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Architect. Concealed work , including cutting chases and making good the walls etc.,				
50.01	PN – 16 Pipe 20mm OD	Mtr	130		

Sl. No.		UNIT	QTY	RATE	AMOUNT
50.02	PN – 16 Pipe 25mm OD	Mtr	370		
50.03	PN – 16 Pipe 32mm OD	Mtr	65		
51	Providing, Fixing at site in position uPVC Pipes (as per ASTM D – 1785 sch-40) of approved make For Cold Water Supply , complete with all necessary (ASTM D – 2466/2467) fittings (elbows, unions, tees, reducers, couplings, nipples etc) (External / Inshaft)				
51.01	20mm nominal outer dia pipes	Mtr	80		
51.02	25mm nominal outer dia pipes	Mtr	120		
51.03	32mm nominal outer dia pipes	Mtr	80		
51.04	40mm nominal outer dia pipes	Mtr	25		

Sl. No.		UNIT	QTY	RATE	AMOUNT
51.05	50mm nominal outer dia pipes	Mtr	35		
51.06	65mm nominal outer dia pipes	Mtr	300		
52	Providing and Fixing Ball Valves (Brass) of approved quality, High or low pressure, with plastics floats complete:				
52.01	15mm nominal bore	no	12		
52.02	20mm nominal bore	no	42		
52.03	25mm nominal bore	no	8		
52.04	32mm nominal bore	no	8		
52.05	40mm nominal bore	no	1		
52.06	50mm nominal bore	no	2		
52.07	65mm nominal bore	no	8		
53	Providing,Fixing,testing and commissioning at site GI Slotted Rail Brackets , hangers, supports with necessary drilling holes to suit the insertion of pipe clamps, deburring etc.,as per detailed drawing for supporting soil, waste & rain water pipes & water supply pipes in shafts with suitable GI clamps,bolts,anchor bolts nuts & washers fixed on shaft walls/outer walls etc.The quoted rate shall include with the cost of brackets galvanizing with zinc alloy of 1.6mm thick confirmed to IS 1239 etc.,complete as directed by the HLL				
53.01	Electro Galvanized (In shaft and dry interior areas)	Mtr	275		

Sl. No.		UNIT	QTY	RATE	AMOUNT
53.02	Hot dip galvanized (Fully exposed to weather and wet areas)	Mtr	80		
54	Providing, Fixing, testing and commissioning at site in positions automatic 3/4"(20mm) dia Air Release Valves of approved quality and make on the top of the vertical water supply pipes as per specification and drawings	no	9		
55	Providing Cement concrete 1:3:6 (1 cement 5 sand and 10 broken stones) encasing using 20 mm granite broken stones for concreting horizontal pipes in the trenches, hire and labour charges for form work ,watering for curing etc complete as directed by the HLL including cost of all	cum	40		
56	Supply, Conveying, Cleaning, Laying of pipes and jointing to true lines and gradients, PVC pipe of IS 4985(6kg/cm²) including excavation in all classes of soil upto a depth of 1.2m from ground level, jointing the pipe as per specification, testing the pipe line after installation all per provisions of IS: 1742-1983 (Code of practice for building drainage) complete				
56.01	160mm OD	Mtr	210		
56.02	110mm OD	Mtr	355		

Sl. No.		UNIT	QTY	RATE	AMOUNT
56.03	75mm OD	Mtr	95		
57	Constructing brick masonry manhole in cement mortar 1:4 (1 cement:4 coarse sand) with RCC top slab with 1:2:4 mix(1 cement:2 coarse sand:4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement:4 coars sand:8graded stone aggregate 40mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement :3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4(1 cement:2 coarse sand :4 graded stone aggregate 20mm nominla size) finished with a floating coat of neat cement complete as per standard design.				
57.01	Inside size 120x90cm and 90cm deep including C.I. cover with frame (heavy duty) 560mm internal diameter, total weight of cover and frame to be not less than 208kg (weight of cover 108kg and weight of frame 100kg)				
	With Sewer bricks conforming to IS: 4885	no	15		
57.02	Extra for depth for Manholes.				
	Size 120 X 90 cm				
	With Sewer bricks conforming to IS: 4885	Mtr	7		

Sl. No.		UNIT	QTY	RATE	AMOUNT
58	Providing and fixing square - mouth SW Gully trap class SP-1 complete with CI grating brick masonry chamber with water tight CI cover with frame of 300x300mm size (inside) the weight of cover to be not less than 4.50kg and frame not to be less than 2.70 kg as per standard design				
	150x 100 mm size P type				
	With Sewer bricks conforming to IS: 4885	no	16		
59	Providing and fixing Ductile Iron (Hinged Type) cover and frame.				
59.01	900X900mm size 125kg wt for Sump Tank	no	12		
59.02	600X600mm size 40kg wt for Overhead Tank	no	12		
	PUMPS AND ACCESSORIES				
60	Supplying, Installing, Testing and commissioning at site HYPN with Tank filling System with VFD, Control panel with ammeter, voltmeter and other accessories complete in all respects. Required flow rate per pump 250 lpm ,Operating head per pump-60 meter, Number of pumps- 2+1(2 working + 1 standby), Pressure vessel- 100 liter/ suitable. (For Domestic Water)	no	1		

Sl. No.		UNIT	QTY	RATE	AMOUNT
61	Supplying, Installing, Testing and commissioning at site HYPN with Tank filling System with VFD, Control panel with ammeter, voltmeter and other accessories complete in all respects. Required flow rate per pump 100 lpm ,Operating head per pump-60 meter, Number of pumps-2+1(2 working + 1 standby), Pressure vessel- 100 liter/ suitable. (For Flush Water)	no	1		
62	Providing, Fixing, testing, commissioning and Installing Submersible Pump (1 + 1 stand by /assist mode) 3HP 35000 L/H (liter per hour) @ 5 mtr. head with CI Impeller, CI Body with mechanical seal including	no	2		
63	Providing,Fixing, Testing, commissioning and installing at site Control Panel including phase preventer, changeover switch, starter with voltmeter and ammeter for Submersible pump(L & T OR Equivalent)	no	1		
64	Design, Supply, Erection, Testing & Commissioning of Sewage treatment plant SBR –Type 45KLD Capacity including all civil works, electrical and mechanical components as per drawings/designs to be furnished and got approved by the Architect. The treated effluent shall conform to standards prescribed by Kerala State Pollution Control Board for reuse as flushing water including obtaining all statutory sanctions and certifications from the Government authorities.	job	1		

Sl. No.		UNIT	QTY	RATE	AMOUNT
65	Design, Supply, Erection, Testing & Commissioning Water Treatment Plant (WTP) 60KLD capacity including all civil works, electrical and mechanical components as per drawings/designs to be furnished and got approved by the Architect. The treated water shall conform to standards prescribed by BIS for Drinking purpose. The WTP shall be Pressure Sand Filter type including activated carbon treatment, chlorination etc. as required.	job	1		
	TOTAL (PART II PLUMBING WORKS)				
	TOTAL (PART I & II PLUMBING WORKS)				

INTERNAL ELECTRICAL WORKS

Sl. No.		UNIT	QTY	RATE	AMOUNT
Item No	Description of items	Unit	Qty.	Rate in Rs	Amount in Rs
	Rates of only ISI marked conduits, cables, switches and socket outlets were taken in the following items. Unless and otherwise specified, only such conduits, cables, switches and socket outlets shall be used in the work.				
I	PART 1				
1	Point wiring in PVC conduit, with modular type switch.				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Wiring for light point/fan point/exhaust fan point/call bell point with 1.5sq.mm FR PVC insulated copper conductor single core cable in surface/recessed PVC conduit with modular switch, modular plate, suitable GI Box, PVC conduit etc and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.				
1.01	One light point controlled by one switch	Point	1109		
1.02	Two light point controlled by one switch	Point	100		
1.03	Three light point controlled by one switch	Point	86		
1.04	Four light point controlled by one switch	Point	125		

Sl. No.		UNIT	QTY	RATE	AMOUNT
2	Twin control point wiring in PVC conduit, with modular type switch:				
	Wiring for twin control light poin/fan with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FR PVC insulated copper conductor single core cable etc as required.	Point	15		
3	Wiring for circuit/ sub main:				
	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
3.01	2x 1.5 sq.mm + 1x1.5sqmm earth wire	Metre	7000		
3.02	2x 2.5 sq.mm + 1x2.5sqmm earth wire	Metre	6000		

Sl. No.		UNIT	QTY	RATE	AMOUNT
3.03	2x 4 sq.mm + 1x4sqmm earth wire	Metre	500		
3.04	2x 6 sq.mm + 1x6sqmm earth wire	Metre	700		
3.05	4x 2.5 sq.mm + 1x2.5sqmm earth wire	Metre	10		
3.06	4x 4 sq.mm + 2x4sqmm earth wire	Metre	10		
3.07	4x 6 sq.mm + 2x6sqmm earth wire	Metre	360		
4	Telephone wiring in existing conduit:				
	Supplying and drawing following pair, 0.5 sq.mm FR PVC insulated copper conductor,unarmoured telephone cable in the existing surface/recessed steel/PVC conduit as required.				
	2 Pair	Metre	4000		
5	TV cable in existing conduit:				
	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/recessed steel/PVC conduit as required.	Metre	1500		
6	Supply & Drawing UTP cable:				
	Supplying and drawing of UTP 4 pair CAT 6 LAN cable in the existing surface/ recessed steel/ PVC conduit as required.	Metre	4000		
7	PVC conduit:				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supplying and fixing of following sizes of PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
7.01	20mm	Metre	10000		
7.02	25mm	Metre	5000		
7.03	32mm	Metre	1000		
8	Modular type switch /socket:				
	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc as required.				
8.01	5/6 amps switch	Each	922		
8.02	15/16 amp switch	Each	344		
8.03	3 pin 5/6 amp socket outlet	Each	922		
8.04	6 pin 15/16 amp socket outlet	Each	344		
8.05	Telephone socket outlet	Each	200		
8.06	TV antenna socket outlet	Each	100		
9	Modular type electronic fan regulator:				
	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc as required.	Each	121		
10	Modular type blanking plate:				
	Supplying and fixing modular blanking plate on the existing modular plate as required.	Each	500		
11	Modular boxes, base & cover plate:				
	Supplying and fixing following size/modules, GI box along with modular base & cover plate for modular switches in recess etc as required				
11.01	1 or 2 Module (75mm x 75mm)	Each	450		
11.02	3 Module (100mm x 75mm)	Each	516		
11.03	4 module (125mm x 75mm)	Each	214		
11.04	6 module (200mm x 75mm)	Each	5		

Sl. No.		UNIT	QTY	RATE	AMOUNT
11.05	8 module (125mm x 125mm)(computer point)	Each	160		
11.06	12 module (200mm x 150mm)	Each	5		
12	Supplying and fixing following size/modules, modular base & cover plate on existing modular boxes etc as required				
12.01	1 or 2 Module (75mm x 75mm)	Each	40		
12.02	3 Module (100mm x 75mm)	Each	150		
12.03	4 module (125mm x 75mm)	Each	70		
12.04	6 module (200mm x 75mm)	Each	5		
12.05	8 module (125mm x 125mm)(computer point)	Each	40		
13	Ceiling rose:				
	Supplying and fixing 3 pin, 5amps,ceiling rose on the existing junction box\ wooden block including connection etc as required.	Each	818		
14	Brass holder:				
	Supplying and fixing brass battten/angle holder including connection etc.as required.	Each	162		
15	Erection of light fittings:				
	Erection of wall bracket/ ceiling fittings of all sizes and shapes containing upto two GLS lamps per fitting, complete with all accessories including connection etc. as required.	Each	567		
16	Call bell/buzzer:				
	Supplying and fixing call bell/buzzer suitable for D.C/A.C single phase,230volts,complete as required.	Each	10		
17	ITC florescent fitting directly on surface:				
	Installation, testing and commissioning of pre-wired, fluorescent fitting/ compact fluorescent fitting/ LED fitting of all types, complete with all accessories and tube etc directly on ceiling/ wall, including connection with 1.5 sq.mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	332		
18	Florescent fitting with down rods:				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Installation, testing and commissioning of pre-wired, fluorescent fitting/ compact fluorescent fitting of all types, complete with all accessories and tube etc., including supplying and fixing ball and socket arrangement, 2 no. down rods of 20mm dia x 1.6mm thick steel conduit upto 30cm length, painting and wiring the down rods and connection with 1.5 sq.mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	782		
19	Extra down rod:				
	Providing and fixing extra conduit down rod of 20mm dia, 2 x 10 cm length wiring with 2 x 1.5 sq.mm FR PVC insulated, copper conductor, single core cable including painting etc as required.(Note:More than 5 cm length shall be rounded to the nearest 10cm and 5 cm or less shall be ignored).	Each	10		
20	ITC ceiling fan:				
	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (up to 30cm)with 1.5 sq.mm FR PVC Insulated, copper conductor, single core cable etc as required.	Each	121		
21	Numbering of fan/fittings:				
	Numbering of ceiling fan/exhaust fan/flourscent fitting as required.	Each	10		
22	ITC exhaust fan upto 450mm sweep:				
	Installation of exhaust fan 300/380/450mm swep in the existing opening, including making in the hole to suit the size of the above fan,making good the damage,connection, testingcommisioning etc as required.	Each	2		
23	Supply & Fixing for exhaust fan:				
	Installation of exhaust fan up to 300 mm shutter type in the existing opening,making good the damage, connection, testing commisioning etc as required.	Each	104		

Sl. No.		UNIT	QTY	RATE	AMOUNT
24	S/F SP MCCB:				
	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections etc as required				
	100 Amp, 16kA, FP MCCB	Each	5		
25	S/F SP MCB DB:				
	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral busbar, earth bar, din bar, detachable gland plate, interconnections, phosphatised and powder painted including earthing etc. as required (But without MCB/RCCB/Isolator)				
	2+6 way/ 8 Way Double door	Each	6		
26	S/F TP MCB DB:				
	Supplying and fixing following ways, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral busbar, earth bar, din bar, detachable gland plate, interconnections, phosphatised and powder painted including earthing etc. as required (But without MCB/RCCB/Isolator)				
26.01	4 way (4 + 12), Double door	Each	4		
26.02	6 way (4 + 18), Double door	Each	36		
26.03	8 way (4 + 24), Double door	Each	46		
27	S/F TP VDB :				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supplying and fixing following ways, surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, complete with tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs as incomer) as required.				
27.01	4 way (4 + 12), Double door	Each	5		
27.02	6 way (4 + 18), Double door	Each	27		
27.03	8 way (4 + 24), Double door	Each	5		
28	MCB's				
	'C' series, MCB:				
	Supplying and fixing 6 amps to 32 amps rating, 240 Volts, 'C' curve, miniature circuit breaker suitable for inductive and other loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
28.01	Single pole	Each	1662		
28.02	Three pole	Each	154		
29	Supply and fixing 30 Amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 Amps C Curve, TP MCB, in sheet steel enclosure on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc as required.	Each	10		
30	Providing and fixing MV danger notice plate of 200mmx150mm, made of mild steel, atleast 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	20		
31	Providing and fixing HT danger notice plate of 250mmx200mm, made of mild steel, atleast 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	2		

Sl. No.		UNIT	QTY	RATE	AMOUNT
37	Civil Works				
37.01	Earth work excavation				
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.	m ³	12		
37.02	PCC - 1: 4:8				
	Providing cement concrete 1:4:8,10cm thick using 40mm grade metal (cement 171kg/m ³) & 20 MM metal mixed together for DG foundation,including centering and shuttering etc complete as directed by the Engineer-in-Charge.				
	Supply and labour	m ³	4		
37.03	RCC - 1:2:4				
	Providing and laying in position specified grade of reinforced cement concrete. All work up to plinth level including Centering and shuttering, strutting, propping etc. and removal of form for Foundations, footings, bases of columns,including centering and shuttering etc for mass concrete.				
	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	m ³	14		
37.04	STEEL REINFORCEMENT:				
	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. (steel supplied by HLL)				
	TMT Bars Fe 500D	kg	320		

Sl. No.		UNIT	QTY	RATE	AMOUNT
37.05	PLASTERING: 12 mm cement plaster of mix. 1:4 (1 cement : 4 coarse sand)	m ²	42		
	TOTAL PART 1				
II	PART 2 - NON- DSR ITEMS				
37	TELEPHONE WIRING IN EXISTING CONDUIT				
	Supplying and drawing following pair FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
37.01	100 Pair				
	Supply	m	300		
	Labour	m	300		
37.02	50 Pair				
	Supply	m	150		
	Labour	m	150		
37.03	20 Pair				
	Supply	m	400		
	Labour	m	400		
38	KRONE BOX				
	Supply, erection, testing and commissioning of following pair krone Box with mounting frame of ISI grade with lockable front cover with all accessories required fixing the box in wall as approved by the consultant/ site engineer in charge.				
38.01	100pair				
	Supply	E	2		
	Labour	E	2		
38.02	50pair				
	Supply	E	4		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Labour	E	4		
38.03	20pair				
	Supply	E	10		
	Labour	E	10		
38.04	10pair				
	Supply	E	5		
	Labour	E	5		
39	EXHAUST FAN				
39.01	Supply, installation, testing and commissioning of 450mm heavy duty exhaust fan in the existing opening, fixing of necessary bolts, and mesh coverings and all other accessories including making good the damages etc as required. Including giving connections with required length of 24/0.2mm PVC insulated and PVC sheathed 3 core round copper conductor, flexible wire confirming to relevant ISS.				
	Supply	E	2		
39.02	Supply, installation, testing and commissioning of 230mm exhaust fan in the existing opening, fixing of necessary bolts, and mesh coverings and all other accessories including making good the damages etc as required. Including giving connections with required length of 24/0.2mm PVC insulated and PVC sheathed 3 core round copper conductor, flexible wire confirming to relevant ISS.				
	Supply	E	104		
40	MINIATURE CIRCUIT BREAKERS ('C' SERIES)				
	Supplying and fixing 'C' series, miniature circuit breaker suitable for lighting and other loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
40.01	63A TP MCB				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supply	E	4		
	Labour	E	4		
40.02	40A TP MCB				
	Supply	E	10		
	Labour	E	10		
41	RCBO				
	Supplying, fixing, testing and commissioning four pole, 415 volts, residual current circuit breaker with overload protection (RCBO) of the following rating and sensitivity current in the existing MCB DB complete with connections, etc. as required.				
41.01	63A 100mA FP RCBO				
	Supply	E	21		
	Labour	E	21		
41.02	40A 100mA FP RCBO				
	Supply	E	17		
	Labour	E	17		
41.03	25A 100mA FP RCBO				
	Rate to be quoted for				
	Supply	E	8		
	Labour	E	8		
41.04	16A 100mA FP RCBO				
	Supply	E	16		
	Labour	E	16		
41.05	16A 30mA FP RCBO				
	Supply	E	52		
	Labour	E	52		
41.06	16A 30mA DP RCBO				
	Supply	E	6		
	Labour	E	6		
42	MCB Isolator				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supplying and fixing 32A TPN MCB Isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
42.01	32A TP MCB Isolator				
	Supply	E	1		
	Labour	E	1		
43	MCB Isolator With Enclosure				
	Supplying & fixing the following rating MCB Isolator with enclosure, including all accessories like spreader links complete with connections, testing and commissioning etc. as required.				
43.01	32A FP MCB Isolator with enclosure				
	Supply	E	18		
	Labour	E	18		
43.02	25/32A DP MCB Isolator with enclosure				
	Supply	E	49		
	Labour	E	49		
44	MCCB				
	Supplying & fixing the following rating MCCB Isolator to the existing MCCB VDB as incomer, including all accessories like spreader links complete with connections, testing and commissioning etc. as required.				
44.01	100A FP MCCB with enclosure				
	Supply	E	2		
	Labour	E	2		
45	INDUSTRIAL SOCKETS				
	Supplying and fixing single phase or three phase, 3 or 5 Pin, Wall Socket Outlet, with MCB provision, with IP67, made of thermoplastic – polyamide material and as per IEC 60309, of the following capacities .				
45.01	16/25A single phase power plug point -2P+E				
	Supply	E	10.00		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Labour	E	10.00		
45.02	32A single phase power plug point -2P+E				
	Supply	E	10.00		
	Labour	E	10.00		
45.03	63A three phase power plug point - 3P+N+E				
	Supply	E	10.00		
	Labour	E	10.00		
46	UTP CAT 6 SOCKETS				
	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc as required.				
	UTP CAT -6 socket				
	Supply	E	200.0		
	Labour	E	200.0		
47	VERTICAL DISTRIBUTION BOARD				
	Supplying and fixing following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision for fixing MCCB as incomer, interconnection between incomer MCCB and bus bars (but without MCB's/ MCCB) as required.				
47.01	8 Way TP				
	Supply	E	1		
	Labour	E	1		
47.02	4 Way TP				
	Supply	E	1		
	Labour	E	1		
48	CABLE MANAGEMENT SYSTEM				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Wall trunking channels shall be made of lead free polyvinyl chloride with ROHS compliance non fire propagating material complying to DIN EN 500085-1,2. With a standard length of 2 meter, size 108.50mm height x 60 mm depth (or higher) suitable for fix any make switches and sockets with out mounting box & suitable to fix switches and sockets of 71mmx71mm (or less) base dimension using mounting box. The system must have a base perforation so as to allow installation in the wall. The WDK 60110 cover must have slide external locking; and with 4 cover clips each in every 2 meter length for a better locking with base trunk. The trunking shall have all accessories like partition, Internal corner cover, External corner cover, T intersection cover, Flat Angle cover , cover clip, Retainer, etc for cable management.				
48.01	Supply	m	700		
	Labour	m	700		
50	FIRE SAFETY EQUIPMENTS				
50.1	Supply and providing 5 kg. Dry chemical powder type fire extinguisher with hose and clamp including fixing in it in the walls as per regulations.				
	Supply & Installation	E	5		
50.2	Supply and providing 9 litre capacity GI fire bucket painted in post office red with primer coat of red oxide and written with white paint 'FIRE' mounted on MS angle frame work/ wall bracket filled with fine sand, painting the bracket/ floor stand including making good the damage, colour washing etc. as required.				
	Supply & Installation	E	4		
50.3	Supply and providing 6 mm thick and 1 m wide electrical grade chequered type rubber mat to withstand 3.3 kV dielectric strength conforming to IS 5429/1969				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supply & Installation	Sq.m	15		
50.4	Supply and providing First Aid Box.				
	Supply & Installation	E	2		
50.5	Supply and providing First Aid chart duly framed and placed in a conspicuous location for clear vision.				
	Supply & Installation	E	2		
50.5	Supply & fixing Laminated drawings of electrical lay out, schematic drawing etc on good frame work.				
	Supply and Installation	E	1		
50.6	Supply and providing MS chequered plate of suitable thickness including cutting, welding, painting etc. as required for the cable trench covering and cable duct covering.				
	Supply and Installation	kg	10		
79	LIGHT FIXTURES				
79.01	Supply, installation, testing and commissioning of decorative moulded body wall/ceiling mounted CFL luminaire of size 200mmX200mm and having height of 56mm with electronic ballst including lamp for 1x9W with all accessories of approved make and design.				
	Supply	Each	162		
79.02	Supply, installation, testing and commissioning of Bulk head in High pressure die cast aluminum housing with Poly carbonate front diffuser for 1X10 W LED complete with all accessories of approved make and design.				
	Supply	Each	76		
79.03	Supply, installation, testing and commissioning of surface mounted LED downlight suitable for 1X17 W LED lamp complete with all accessories of approved make and design..				
	Supply	Each	188		

Sl. No.		UNIT	QTY	RATE	AMOUNT
79.04	Supply, installation, testing and commissioning of recess mounted LED downlight with Powder Coated Pressure diecast aluminium housing with extended heat sink. 1X18 W Cool White LED lamp, and complete with all accessories of approved make and design.				
	Supply	Each	153		
79.05	Supply, installation, testing and commissioning of professional LED recessed Downlighter. Housed in powder coated Pressure diecast aluminium housing with extended heat sink. 1x6W Cool White LED lamp type of approved make and design.				
	Supply	Each	8		
79.06	Supply, installation, testing and commissioning of surface mounted circular LED downlight suitable for 1X23 W LED lamp, and complete with all accessories of approved make and design.				
	Supply	Each	32		
79.07	Supply, installation, testing and commissioning of recessed mounted luminare , 1X36W Cool White LED lamp in PDC aluminium housing body with extended heat sink complete with all other accessories of approved make and design.				
	Supply	Each	129		
79.08	Supply, installation, testing and commissioning of recessed mounted LED fixture made of high strength aluminium extrusion housing and pressure die-cast aluminium end caps. Lamp type: 1x34W Cool-White LED of approved make and design.				
	Supply	Each	541		
79.09	Supply, installation, testing and commissioning of White Regal Industrial Batten for 2X18 W complete with all accessories of approved make and design.				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supply	Each	112		
79.10	Supply, installation, testing and commissioning of Recess mounted pressure die-cast aluminium luminaire in powder coated white finish in round profile with optimized heat sink for efficient heat dissipation and separate replaceable electronic driver for 1X15 W LED Downlighter with all accessories of approved make and design.				
	Supply	Each	46		
79.11	Supply, installation, testing and commissioning of Surface Mounted LED Downlighter. Housed in powder coated Pressure diecast aluminium housing with extended heat sink. 1x6W Cool White LED lamp type of approved make and design.				
	Supply	Each	98		
79.12	Supply, installation, testing and commissioning of LED Batten light fixture with extruded aluminium heat sink for efficient heat dissipation for 1X18W complete with all accessories of approved make and design.				
	Supply	Each	36		
79.13	Supply, installation, testing and commissioning of Decorative ultra slim linear LED lighting fixture with extruded Al. heat sink for 1X20 W complete with all accessories of approved make and design.				
	Supply	Each	216		
79.14	Supply, installation, testing and commissioning of surface mounting IP66 luminaire with PC housing in opal finish suitable for wet location with high brightness LEDs for 1X24W complete with all accessories. of approved make and design.				
	Supply	Each	19		

Sl. No.		UNIT	QTY	RATE	AMOUNT
79.15	Supply , erection, testing and commissioning of hot dip galvanised (both internally & externally) single arm street light pole of octagonal cross-section of 6m length with sturdy base plate of suitable size as per IS.2713 of 1980 on a 1:2:4 concrete plinth., providing separate adequate size pipes for incoming and outgoing power cables and earth wires to the cable termination box of standard size of sintex make hard plastic box with IP 54 protection provided on the bottom of the tubular pole. Required nos. of GI bolts of size to suit the holes of the base plate of the pole shall be cast vertically in the concrete, using template ,				
	the threaded portion protruded outside the plinth shall be applied with galvanised paint. 6A SP MCB , neutral link, earth terminating facility and suitable terminal block etc. shall be fixed in the termination box as required. The post shall be wired using 3 core 1.5 mm sq. PVC insulated copper cable. Supply, installation and testing of light luminarie includign all minor civil works required for installation. road lighting luminaire with high power led and lens to ensure uniform distribution, higher spacing between poles and maintenance free system suitable for 1x24W LED lamps, of approved make and design.				
	Supply	Each	41		
	Labour	Each	41		

Sl. No.		UNIT	QTY	RATE	AMOUNT
79.16	<p>Installation, testing and commissioning of road lighting luminaire with high power led and lens to ensure uniform distribution, higher spacing between poles and maintenance free system suitable for 2 nos 1x24W LED lamps, ideal for road with width upto 6 meter. including Supply , erection, testing and commissioning of hot dip galvanised(both internally & externally) with double arm street light pole of octagonal cross-section of 6m length with sturdy base plate of suitable size as per IS.2713 of 1980 on a 1:2:4 concrete plinth., providing separate adequate size pipes for incoming and outgoing power cables and earth wires to the cable termination box of standard size of sintex make hard plastic box with IP 54 protection provided on the bottom of the tubular pole.</p>				
	<p>Required nos. of GI bolts of size to suit the holes of the base plate of the pole shall be cast vertically in the concrete, using template , the threaded portion protruded outside the plinth shall be applied with galvanised paint. 6A SP MCB , neutral link, earth terminating facility and suitable terminal block etc. shall be fixed in the termination box as required. The post shall be wired using 3 core 1.5 mm sq. PVC insulated copper cable. Supply, installation and testing of light luminarie including all minor civil work required for installation of approved make and design.</p>				
	Supply	Each	9		
	Labour	Each	9		

Sl. No.		UNIT	QTY	RATE	AMOUNT
79.17	Supply, installation, testing and commissioning of 6.5 W white-light LED wall fixture of simple round design with reliable lighting performance, opal diffuser which delivers a soft light effect with attractive uniformity. Compact and simple design and should be environmentally friendly: with no hazardous substances (no mercury, no lead) or UV. Low-power white-light LED light source(96 x LED-HB) with warm white light and driver Integrated in independent driver box and Wide beam optic with Translucent opal diffuse, and dark grey housing made of ABS plastic and polycarbonate diffuser and silicone rubber gasket . Should have long lifetime with IP65 protection and IK08 impact resistance of approved make and design.				
	Supply	Each	4		
79.18	Supply, installation, testing and commissioning of ground surface mounting, 9 W warm white-light LED bollard of reliable and robust design and should be environmentally friendly and have wide beam, reliable lighting performance, with no hazardous substances (no mercury, no lead) or UV. Low-power white-light LED light source(96 x LED-HB) with warm white light with integrated baseplate and driver and Wide beam optic with Translucent diffuse tube, and dark grey housing made of aluminium and polycarbonate diffuser and heat resistant silicone rubber gasket . Should have long lifetime with IP65 protection and IK08 impact resistance including all minor civil works required for installation of approved make and design.				
	Supply	Each	4		
	Labour	Each	4		
81	PVC FLEXIBLE CONDUIT				

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Supply and clamping the following size of corrugated pvc flexible conduit with necessary compression gland with locking ring and check nut at termination pointed using suitable size GI/painted MS saddles spacing not exceeding 60 cms on surface including making good the damages, colour washing etc.as required				
81.01	20mm dia				
	Supply	m	3000		
	Labour	m	3000		
81.02	25mm dia				
	Supply	m	2000		
	Labour	m	2000		
84	OCCUPANCY SENSOR				
	Supply, installation, testing and commissioning of Occupancy sensor, Occuswitch of PHILIPS make or equivalent complete with LRM1070 Basic Occuswitch, LCC1070 Wieland cable, LRH1070 Ceiling mounting box etc. complete with all accessories required including giving necessary interconnections with connectors etc complete as approved by the consultant/site engineer in charge.				
	Supply	Each	150		
	Labour	Each	150		
85	Key FOB Switch(For Hostel Rooms)				
	Supply, installation, testing and commissioning of Key FOB switch system for energizing a circuit by inserting a key fob or smart card, with min 30 sec time delay after removal of card for turn off. 16A key FOB switch with 2 module plate and key fob for switch of approved make, including all connections, 2 mouldle metal flush box for mounting and all other acessosires as required				
	Supply	Each	98		

Sl. No.		UNIT	QTY	RATE	AMOUNT
	Labour	Each	98		
	TOTAL PART 2 - NON DSR ITEMS				
	TOTAL OF PART 1 and PART 2				