

THE ABSTRACT OF BILL OF QUANTITIES IN THE PRICE BID SHALL BE INVARIABLY FILLED. THOSE BIDDERS WHO DO NOT FILL WILL BE NON-RESPONSIVE AND WILL BE DISQUALIFIED FROM EVALUATION AND WILL BE TREATED AS TECHNICALLY NOT QUALIFIED.

**ALL ROWS SHALL BE FILLED, THIS IS MANDATORY
(IF NIL OR NA, THAT MAY ALSO BE SHOWN)**

BILL OF QUANTITIES

ABSTRACT

Civil, Electrical & Airconditioning Works

SI No	Name of work	Amount in Rs
1	Roof work	
2	Repair and finishing works	
3	Internal road works	
4	Common facility	
5	Electrical - LT (Shed 4,5,6,7& external lighting)	
6	Electrical - HT	
7	Office Furniture	
8	Airconditioning works	
	Service tax component to be paid by the bidder	
	Service tax component to be directly paid by the HITES in case the bidder is a Proprietary firm	
	GRAND TOTAL	

Signature of the Bidder with date

Civil - Roof Sheeting Works						
SI no	DSR item ref no	Item Description	Unit	Qty	Rate in words and figures in Rs	Amount in Rs.
1	15.28.2	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of : Asbestos sheet	sqm	1000		
2	12.5	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin-charge. The sheet shall be fixed using self drilling / self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	sqm	1175		
3	12.51.1.	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Ridges plain (500 - 600mm)	m	100		
4	12.51.6	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Gutter .(600 mm over all girth)	m	195		

5	13.52.1	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	100.00		
		Total Amount in words and figures in Rs				

Civil - Repair and finishing works						
Sl no	DSR item ref no	Item Description	Unit	Quantity	Rate in words and figures in Rs	Amount in Rs.
		I. Demolition Works				
1	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	cum	26		
2	15.7.4	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	cum	79		
3	15.57	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	840		
		II. Repair Works				
4	14.1.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground within 50 metres lead : With cement mortar 1:4 (1 cement : 4 fine sand)	sqm	4170		
5	14.4.1	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground. For door/ window/ clerestory window	sqm	180		
		III. Painting				

6	14.43	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	sqm	5335		
7	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	sqm	2100		
8	13.43.1	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : Water thinnable cement primer	sqm	2285		
9	13.83.2	Wall painting with premium acrylic emulsion paint of interior grade, 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. two coats	sqm	2285		
10	13.47.1	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade : 13.47.1 New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	3260		
		IV. Doors and Windows				
11	PSR 9.1.1B	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position - Burma Teak wood	cum	1.00		
12	PSR 9.5.1.1 B	Providing and fixing panelled or panelled and glazed shutters for doors , windows and clerestory windows including ISI marked black enamelled M.S butt hinges with necessary screws excluding panelling which will be paid for separately. - Burma Teak wood - 35mm thick shutter	sqm	80.00		
13	PSR 9.14	Extra for providing ISI marked stainless steel built hinges instead of black enamelled M.S. butt hinges with necessary Screws. (Shutter area to be measured)	sqm	100.00		
14	13.68.1	French spirit polishing : Two or more coats on new works including a coat of wood filler	sqm	155.00		

15	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand: 6 graded stone aggregate 20mm nominal size).	each	100.00		
16	9.84	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete	each	50.00		
17	9.97.1	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete : 300x10 mm	each	50.00		
18	9.92.1	Providing and fixing chromium plated brass handles with necessary screws etc. complete: 125 mm	each	17.00		
19	9.88	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	15.00		
20	21.1.1.2	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 Engineer-in-charge. (Glazing, paneling to be paid for separately): Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	1105.00		

21	21.1.2.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (all fittings included) Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	330.00		
22	21.3.2	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 engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.5 mm thickness	sqm	365.00		
23	21.16.2	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge Powder coated minimum thickness 50 micron aluminium	each	110.00		
24	9.82	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete	each	20.00		
25	21.8.1	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width	m	170.00		
		XI. Flooring/ Granite Works				
26	11.41.2	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., complete. Size of Tile 600x600 mm	sqm	1030		

27	11.46.2	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete.	sqm	130		
		X. False Ceiling				
28	12.53	Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spintone/ cosmos/ Hexa or equivalent of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls/ partitions on a Perimeter wall angle pre-coated steel of size (24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture (Spintone/ Cosmos/ hexa) in the grid,				

		<p>including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge. Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/ opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, noncombustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/m 0 KC</p>	sqm	1090		
		Total Amount in words and figures in Rs				

Internal Road works						
Sl no	DSR item ref no	Item Description	Unit	Quantity	Rate in words and figures in Rs	Amount in Rs.
1	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres	sqm	2105.00		
2	16.78.1	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge. With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	cum	445.00		
3	16.68	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 Engineer-in-charge.	sqm	2215.00		

4	16.69	Providing and laying at or near ground level factory made kerb stone of M25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	10.00		
		Total Amount in words and figures in Rs				

Common Facilities- Civil works						
Sl no	DSR item ref no	Item Description	Unit	Quantity	Rate in words and figures in Rs	Amount in Rs.
		I. Earth Works				
1	2.6.1	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. 2.6.1 All kinds of soil	cum	85.00		
2	2.25	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.	cum	90.00		
		II. PCC				

3	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	20.00		
4	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth	sqm	60.00		
		III. RR Masonry				
5	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	55.00		
		IV. RCC				
6	5.33.2	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 Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately). All works above plinth level upto floor V level	cum	63.00		
7	5.34.1	Extra for providing richer mixes at all floor levels. Note:- Excess/ less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/ RMC. (Note : Cement content considered in M-30 is @ 340 kg/ cum)	cum	63.00		
8	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	30		
		V. Shuttering				

9	5.9.3	Centering and shuttering including strutting, propping etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform	sqm	75.00		
10	5.9.5	Centering and shuttering including strutting, propping etc. and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilever	sqm	85		
11	5.9.19	Centering and shuttering including strutting, propping etc. and removal of form for: Weather shade, Chajjas, corbels etc., including edges	sqm	15		
12	5.9.6	Centering and shuttering including strutting, propping etc. and removal of form for : Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	105		
13	5.9.1	Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete	sqm	35		
		VI. Reinforcement				
13	5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete at all levels Thermo-Mechanically Treated bars	kg	7940.00		
		VII. Anti termite treatment				
15 A	2.35.3.1	Diluting and injecting chemical emulsion for POSTCONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor : With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	sqm	110.00		
15 B	2.34.1	Supplying chemical emulsion in sealed containers including delivery as specified. 2.34.1 Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	lit	115.00		
		VIII. Brick Work				
16	6.4.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5 in superstructure above plinth level up to floor V level in all shapes and sizes in : 6.4.1 Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	65.00		

		IX. Plastering				
17	13.8.2	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix : 1:4 (1 cement: 4 fine sand)	sqm	245.00		
18	13.7.2	Providing and applying 12 mm cement plaster finished with a floating coat of neat cement of mix : 1:4 (1 cement: 4 fine sand)	sqm	245.00		
19	13.16.1	Providing and applying 6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand)	sqm	60.00		
		X. Structural Steel Works				
20	10.16.3	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete 10.16.3 Electric resistance or induction butt welded tubes	kg	1340.00		
21	12.50	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin-charge. The sheet shall be fixed using self drilling / self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	sqm	70		
22	12.51.1.	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Ridges plain (500 - 600mm)	m	10		

23	12.51.6	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Gutter .(600 mm over all girth)	m	20		
		XI. Painting				
24	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	sqm	260.00		
25	13.43.1	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : Water thinnable cement primer	sqm	260.00		
26	13.83.2	Wall painting with premium acrylic emulsion paint of interior grade, 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. Two coats	sqm	260.00		
27	13.47.1	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade : 13.47.1 New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	260.00		
28	13.52.1	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	75.00		
		XII. Flooring/ Granite Works				
29	11.26.1	Kota stone slab flooring 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) : 25 mm thick	sqm	110.00		

30	11.27	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	sqm	16.00		
31	8.2.2.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , 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	sqm	10.00		
		XIII. Rolling Shutter				
32	10.6.1	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	sqm	10		
33	10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in- charge, (area of grill to be measured).	sqm	3		
34	10.7	Providing and fixing ball bearing for rolling shutters	each	5		
		XIV. Doors and Windows				
35	PSR 9.1.1B	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position - Burma Teak wood	cum	0.30		

36	PSR 9.5.1.1B	Providing and fixing panelled or panelled and glazed shutters for doors , windows and clerestory windows including ISI marked black enamelled M.S butt hinges with necessary screws excluding panelling which will be paid for separately. - Burma Teak wood - 35mm thick shutter	sqm	10.00		
37	PSR 9.14	Extra for providing ISI marked stainless steel buitt hinges instead of black enamelled M.S. butt hinges with necessary Screws. (Shutter area to be measured)	sqm	8.00		
38	13.68.1	French spirit polishing : Two or more coats on new works including a coat of wood filler	sqm	15.00		
39	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand: 6 graded stone aggregate 20mm nominal size).	each	8.00		
40	9.84	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete	each	5.00		
41	9.97.1	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete : 300x10 mm	each	8.00		
42	9.92.1	Providing and fixing chromium plated brass handles with necessary screws etc. complete: 125 mm	each	5.00		
43	9.88	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	5.00		

44	21.1.1.2	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 Engineer-in-charge. (Glazing, paneling to be paid for separately) : Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	285.00		
45	21.1.2.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (all fittings included) Powder coated aluminium (minimum thickness of powder coating 50 micron)()	kg	190.00		
46	21.3.2	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 engineer-in-charge.(Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.5 mm thickness	sqm	30.00		
47	21.16.2	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge Powder coated minimum thickness 50 micron aluminium	each	20.00		
48	9.82	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete	each	5.00		
49	21.8.1	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width	m	70.00		
		XV. Tube Well				

50	24.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	hour	100.00		
51	24.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	25.00		
52	24.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of: 200mm dia	each	2.00		
53	24.14	Providing and fixing M.S. clamp of required dia to the top of casing/housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete. 200mm dia	each	2.00		
54	24.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I). 200mm dia	each	2.00		
		Total Amount in words and figures in Rs				

Electrical LT works (Shed 4,5,6,7 and external lighting)

Sl no	DSR item ref no	Item Description	Unit	Quantity	Rate in Rs.	Amount in Rs.
-------	-----------------	------------------	------	----------	-------------	---------------

1	1.10.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	Each	105		
2	1.11	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	Each	2		
3		Wiring for circuit/submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface medium class PVC conduit as required.				
3.1	1.14.1	2 x 1.5 sq.mm + 1 x 1.5 sq.mm earth wire	m	625		
3.2	1.14.2	2 x 2.5 sq.mm + 1 x 2.5 sq mm earth wire	m	1660		
3.3	1.14.3	2 x 4.0 sq.mm + 1 x 4.0 sq mm earth wire	m	810		
3.4	1.14.4	2 x 6.0 sq. mm + 1 x 6.0 sq. mm earth wire	m	50		
4	1.18.2	Supplying and drawing 2 pair 0.5 sq mm FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.	m	710		

5	1.19	Supplying and drawing co-axial TV cable RG-6 grade 0.7mm 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.	m	60		
6		Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
6.1	1.21.1	20 mm	m	710		
6.2	1.21.2	25 mm	m	1375		
6.3	1.21.3	32 mm	m	80		
7	1.22.12	Supplying and fixing metal box of 200 x 250 x 100 mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	Each	10		
8		Supplying and fixing following modular switch / socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
8.1	1.24.6	Telephone socket outlet	Each	30		
8.2	1.24.7	TV antenna socket outlet	Each	4		

9	1.25	Supplying and fixing stepped type electronic fan regulator-modular on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	24		
10	1.26	Supply and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	35		
11		Supplying and fixing following size / modules, GI box alongwith modular base & cover plate for modular switches in recess / surface etc as required.				
11.1	1.27.1	1 or 2 module	Each	30		
12	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	Each	98		
13	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	15		
14	1.33	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	Each	65		

15	1.41	Installation, testing and commissioning of prewired, fluorescent fittings / compact fluorescent fitting / LED of all types, complete with all accessories and tube etc. directly on ceiling /wall, including connections with 1.5 sq.mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	50		
16	1.44	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	24		
17	1.48	Supplying and fixing extra conduit down rod of 20 cm length GI pipe 15 mm dia, heavy guage including painting etc as required.(Note: More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored).	Each	24		
18		Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				
18.1	1.50.1	Upto 450 mm sweep	Each	2		
19	1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN cable in the existing surface / recessed steel / PVC conduit as required.	m	1375		
20		Providing and fixing Following rating and breaking capacity and pole MCCB existng cubicle panel board including drilling holes in cubicle panel, making connections etc as required.				
20.1	2.2.1	100 Amp ,16 KA,TP MCCB	Each	1		
20.2	2.2.2	125 Amp ,16 KA,TP MCCB	Each	1		

21		Supplying and fixing following way single pole and neutral, sheet steel, MCB distribution board, 240 volts on surface / recess complete with tinned copper busbar, neutral busbar, earth bar, din bar, interconnections, powder painted including earthing etc as required (But without MCB/RCCB/Isolator).				
21.10	2.3.6	8 way double door	Each	2		
22		Supplying and fixing following way horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts on surface / recess complete with tinned copper busbar, neutral busbar, earth bar, din bar, interconnections, powder painted including earthing etc as required (But without MCB/RCCB/Isolator).				
22.1	2.4.4	4 way double door	Each	3		
22.2	2.4.5	6 way double door	Each	4		
22.3	2.4.6	8 way double door	Each	3		
23		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 busbar, common neutral link, earth bar, din bar, for mounting MCBs,(but without MCB's and incomer) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required).				
23.1	2.5.4	4 way double door	Each	3		

24		Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
24.1	2.10.1	Single pole	Each	165		
24.2	2.10.4	Triple pole	Each	2		
24.3	2.10.5	Triple pole and neutral	Each	4		
25	2.11	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	30		
26		Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
26.1	2.12.1	40 amps	Each	2		
27		Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
27.1	2.13.1	40 amps	Each	10		
27.2	2.13.2	63 amps	Each	6		

28		Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
28.1	2.14.2	40 amps	Each	2		
29		Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
29.1	2.15.1	25 amps	Each	2		
29.2	2.15.2	40 amps	Each	8		
29.3	2.15.3	63 amps	Each	5		
30	2.16	Supply and fixing DP sheet steel enclosure on surface recess along with 16/25/32/ amps 240V "C" curve DP MCB complete with connections, testing and commissioing etc as required.	Each	2		
31	2.17	Supply and fixing TP sheet steel enclosure on surface recess along with 16/25/32/ amps 415V "C" curve TP MCB complete with connections, testing and commissioing etc as required.	Each	2		

32	2.18	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	35		
33	5.2	Earthing with GI earth pipe 3.0 m long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke as required.	Each	8		
34	5.4	Earthing with GI earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke as required.	Each	1		
35	5.7	Supplying and laying 6 SWG GI wire at 0.5m below ground level for conductor earth electrode, including connection / termination with GI thimble etc as required.	m	720		
36	5.8	Supply and laying 25mm x 5mm copper strip at 0.5m below ground as strip earth electrode, including connection / terminating with nut, bolt, spring, washer etc as required (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced 50mm).	m	40		
37	5.9	Supply and laying 25mm x 5mm GI strip at 0.5m below ground as strip earth electrode, including connection / terminating with nut, bolt, spring, washer etc as required (Jointing shall be done by overlapping and with 2 sets of GI nut bolt & spring washer spaced 50mm).	m	90		

38	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	m	60		
39	5.16	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	m	140		
40	5.17	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing as required.	m	110		
41		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
41.1	7.1.1	Upto 35 sq. mm	m	510		
42		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
42.1	7.7.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	390		
43		Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
43.1	9.1.33	4 x 16 sqmm	Each	6		
43.2	9.1.32	4 x 10 sqmm	Each	8		
43.3	9.1.32	4 x 6 sqmm	Each	30		

44		Supply of the following size 1.1kV grade XLPE insulated PVC sheathed, armoured Aluminium conductor power cable confirming to IS 7098 (part 1) ammended upto date.				
44.1		4 x 16 sqmm cable	m	145		
44.2		4 x 10 sqmm cable	m	220		
44.3		4 x 6 sqmm cable	m	480		
		Total Amount in Rs				
45		Supply of 20W LED Batten surface mounting luminarire with Decorative box type fitting with high efficiency PMMA diffuser including all necessary accessories complete. (Crompton DMLN1LT8-16/LTT8-20/ LTT8-20 /Philips - BN150W LED 20S-6500-PSE OD GR /Wipro - LL20-221-XXX-60-XX).	Nos	50		
46		Supply and installation of compact Recess mounted 36W LED luminaire with High translucent diffuser gives soft glare free light & complete with electronic driver including all required mounting accessories complete. (Crompton LCTLR36-FO- CDL / Philips -Full glow RC 380B LED-35-6500-PSE OD WH / Wipro -CRCO 10R036HP57)	No	86		
47		Supply of 20 W LED tube light Surface mounting industrial type corrossion resistant IP65 luminaire with polycarbonate body, polycarbonate cover, SS toggles etc including all necessary accessories complete. (Crompton LPFC111LT8-16/ Philips/Wipro)	Nos	4		

48		Supply of 1x11W surface mounted luminaire with diffuser and decorative end cap complete with all electrical accessories like electronic ballast, lamp holder, 11W CFL lamp etc. complete with all mounting accessories etc as required. (Wipro WRP 21111 /Crompton/Philips)	Each	2		
49		Supplying and fixing ISI marked PVC angle battren with 15 W LED lamp including all connections as required.	Nos	4		
50		Supply of ceiling fan 1200mm sweep, double ball bearing, approved colour and quality with original down rod,suspension shackle,canopy etc with out regulator complete with all accessories as required. (Usha Technix Decorative (5 star rating) / Crompton High Breeze plus (5 star) / Orient Energy star)	Each	24		
51		Supply & installation of 400mm sweep,Wall fan powder coated guard suitable for single phase 230 volt, 50Hz AC supply complete with motor, capacitor and all accessories as required complete. (Make : Usha Max Air white or equivalent)	Each	38		
52		Supply of ventillating fan 250 mm sweep of approved colour, for single phase 230 volt, 50Hz AC supply complete with motor, capacitor, auto close and open grill cover and all accessories as required complete.	Each	2		

53	Supply & installation of Hot dipped Galvanised (internally and externally), seamless, octogonal pole of overall length 5M with single arm bracket of 1.5m length 48mm dia x 3.25mm thick with standard arm cap. The pole shall have inbuilt cable loop in loop out with flush door and locking facility. The bottom dia of the pole shall be 135mm and top 70mm with 3mm sheet thickness. The pole shall be with base plate of 225x225x16mm and 4nos required size of foundation bolt. The pole shall be mounted on suitable size foundation (design to be got approved) with baseplate arrangement and provided with 4A SP C curve MCB, loop in loop out terminals block, required dia GI / PVC pipe shall be provided in the foundation for taking cable in & out from the pole, 3Cx1.5sqmm unarmoured PVC insulated round copper cable from loop in loop out to light fixture etc with all required accessories. The cost of the civil foundation is not considered in this item. The design of the foundation to be got approved from Engineer-in-charge before execution.	Nos	16		

54		Supply & installation of Hot dipped Galvanised (internally and externally), seamless, octagonal pole of overall length 5M with double arm bracket of 1.5m length 48mm dia x 3.25mm thick with standard arm cap. The pole shall have inbuilt cable loop in loop out with flush door and locking facility. The bottom dia of the pole shall be 135mm and top 70mm with 3mm sheet thickness. The pole shall be with base plate of 225x225x16mm and 4nos required size of foundation bolt. The pole shall be mounted on suitable size foundation (design to be got approved) with baseplate arrangement and provided with 4A SP C curve MCB, loop in loop out terminals block, required dia GI / PVC pipe shall be provided in the foundation for taking cable in & out from the pole, 3Cx1.5sqmm unarmoured PVC insulated round copper cable from loop in loop out to light fixture etc with all required accessories. The cost of the civil foundation is not considered in this item. The design of the foundation to be got approved from Engineer-in-charge before execution.	Nos	8		
55		Supply, installation, testing & commissioning of IP66, 24W LED street light fixture, with die cast aluminium housing, stainless steel toggle, electronic driver etc as required. The light fitting shall be suitably installed with all required accessories to the street light pole. (Similar to Philips BRP 320 lx24 LED / Wipro LR01-025-XXX-WH-XX / Havells LHETAXU7UN6W024 / Bajaj BCLST 25W LED)	Nos	32		
56		Supply and installation of 30W LED, IP66, flood light luminaire with high pressure die cast housing, high power LED including all accessories like driver, installation accessories etc as required. (Make: Crompton LFLE 30 CDL /Philips-BVP 120 LED35W FGS1PSUGR/ Wipro -LF06-211-XXX-30-XX)	Nos	6		

57		Supply and Installation of 20 pair MDF box, back mount frame and original krone connectors with all accessories.	Each	2		
58		Supply and Installation of 10 pair MDF box, back mount frame and original krone connectors with all accessories.	Each	1		
59		Supply & fixing modular type computer outlet (RJ-45) with modular base and cover plate, GI box complete with all accessories, connection etc. complete as required.	Each	55		
60		Supply and installation of 9 U wall mounted Network Rack made of steel, powder coated, front glass cover with PDU's, cable manager and cooling fans including all required accessories.	nos	2		
61		Supplying and fixing 40A / 63A TP MCB, 415 Volts, "C" series, miniature circuit breaker in the existing MCB DB complete with connections, testing and commissioning etc as required.	Each	18		
62		Supplying and fixing FP weather proof cabinets with IP 65 rating on surface/ recess along with 16/25/32amps 415 volts "C" curve TPN MCB complete with connections, testing and commissioning etc. as required.	Each	2		
63		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 MCBs with 100 amps TP 16kA MCCB as incomer interconnection between incomer MCCB and busbar (but without MCBs/MCCB) as required. (Note vertical type MCB TPDB is normally used where 3 phase outlets are required).				

63.1		4 way	Each	1		
63.2		6 way	Each	2		
64		Providing and fixing 10 SWG copper wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable etc as required.	m	310		
65		Wiring for two light point with 1.5sq.mm FRLS PVC insulated copper conductor singlecore cable in surface/ recessedPVC conduct, one modular switch, modular plate, suitable GI box and earthing the point with 1.5 Sq mm FRLS PVC insulated copper conductor single core cable etc as required	Point	21		
66		Wiring for three light point with 1.5sq.mm FRLS PVC insulated copper conductor singlecore cable in surface/ recessed PVC conduct, One modular switch, modular plate, suitable GI box and earthing the point with 1.5 Sq mm FRLS PVC insulated copper conductor single core cable etc as required	Point	21		
67		Dismantling the existing light fixing (indoor), ceiling fan, exhaust fan,DB etc with least damage and storing the same to the place as per the direction of engineer in charge.	Each	26		
68		Dismantling of existing electrical conduits / cassing & capping, switches, switch boards, junction boxes, wires, angle batten including all accessories in a total floor area (under renovation) and storing in space as directed by Engineer-in-charge	Job	4		

		Total Amount in words and figures in Rs				
--	--	---	--	--	--	--

Electrical HT works						
Sl no	DSR item ref no	Item Description	Unit	Qty	Rate in words and figures in Rs	Amount in Rs.
1		Supply,fabrication, erection, testing & commissioning of 11 KV DP structure using required size of ISMB for poles and required size cross channel with ISMC for supporting structure for 11kV components, 11 KV pin, disc and stay insulators, supports, jumpers '/interconnecting conductors with 0'SWG Cu, 25x3mm braided copper earthing for non current moving part like handle of AB switch etc. The item includes erection of DP structure on suitable concrete foundation and painting with one coat of metal primer after fabrication and two coats of aluminium enamel paint after erection complete and consists of the following. The cost of the civil foundation shall be measured along with civil items. The design of the foundation shall be got approved from Engineer-in-charge before execution.				
		11KV,400A single brake,TP, gang operated AB switch with operating handle & locking mechanism - 1 set				
		11 KV Lighting Arrestors - 1 set				

		11 KV Drop out fuses - 1 set				
		The consumers DP structure shall be braced with state electricity board DP structure if required & interconnection shall be done with 0 SWG Cu wire.				
		The DP structure shall be with all necessary accessories for connecting 11kV cable as per particular specification & drawing. The 11kV DP structure shall be done as per the requirement of statutory authority.	Job	2		
2		Supply, installation, testing & commissioning of 11kV outdoor type CT/PT unit with CT rating suitable as per Puducherry Electricity Department, class 0.5, 15VA CT & 11kV/110V class 0.5 100VA PT to be mounted on to the DP structure. The item also include supply & installation of TOD meter in a suitable weather proof sheet steel enclosure (14SWG) in 600mm plinth including Test terminal block, control fuses & 10C 2.5sqmm armoured copper cable between CT/PT unit & TOD meter. The work shall be as per state electricity department norms. The cost of the civil foundation shall be measured along with civil items. The design of the foundation shall be got approved from Engineer-in-charge before execution.	Job	1		

3		<p>Supply, fabricating & erection of 1.8 mtr high chain link fencing (50mm cross link) over 600 mm high brick masonry, using 4 mm thick GI chain link with a framework of 50x50x6 mm MS angle between vertical posts of ISMC 75x50mm at 2400 mm interval, which are fixed to the concrete footing (1:2:4) of size 450x450x200 mm (above GL) with adequate footing depth, between the brick / block masonry. Brick / block masonry (345 mm thick) and 200 mm from ground level for foundation & plinth in cement mortar (1:6). The brick masonry is to be pointed using cement mortar 1:3 to have a flush finish. Earth strip shall be connected to the fencing for its earthing. The MS framework for chain link fencing is finished using zinc chromate primer & 2 coats of synthetic enamel paint. 1.5 mtr wide gate shall be provided with suitable locking arrangements. The rate shall be inclusive of all materials, labour, lead, lift, etc including excavation works and fabrication and assembly works including all nuts, bolts & other miscellaneous items, etc. complete</p>	m	25		
---	--	---	---	----	--	--

4		<p>Supply, erection, testing and commissioning of 160 kVA indoor type unitised substation (USS), 11 kV/ 433 V, 3 phase, Vector DYn-11, Copper wound, resin cast transformer with off circuit tap changer from +5% to -10 % in steps of 2.5 %. The HV side shall be connected to HTSFU and LV cable box suitable for connecting 1 runs 3.5C x 185sqmm XLPE Aluminium cable. The transformer shall be provided with O/C and E/F protection on HV side, with necessary protection CT & PT, winding temperature indicator and all other standard fittings and accessories conforming to IS 11171/85 and IS2026/1975. The low set earth fault relay with neutral CT 60/5A, class 5P10, 10VA shall be provided.</p>				
		<p>All the equipments shall be mounted on a common galvanised GI base with fabricated enclosure painted with outdoor type rust proof paint / powder coated. The wall of the enclosure shall be detachable type with louvers for natural cooling The busbars inside the cubicle shall be sleeved using heat shrinkable sleeves.</p>				
		<p>The HV side of the USS shall be provided with 11kV, 18.4kA, 630A, load break switch with earth switch. The HT HRC fuse, seal off bushing, 230V shunt trip coil, space heater with thermostat, 350A Aluminum busbar with support insulator shall be provided.</p>				

		Space for the TOD meter with sealing facility as per Puducherry Electricity Department shall be provided. (Make: Kriloskar / Megawin / Intrans / Crompton Greaves)	Each	1		
5		Supply and installation of suitable CT ratio /5A, 15VA, class 0.5 as per Puducherry Electricity Department. 11kV/ 110V, 100VA, class 0.5 fixed type PT, TOD meter in the space provided in USS.	Job	1		
6		Supply, Installation, Testing and Commissioning of 160 kVA , silent type, water cooled, radiator type, four stroke, electric start D.G Set with acoustic enclosure and standard control panel for hoysing necessary engine controls. The engine shall be capable of taking 10% overload for one hour after 12 hours of continuous operation. The DG shall be suitable for AMF operation. The alternator shall be brushless, self excited, self regulated, SPDP enclosure, class F/H insulation, suitable for continuous operation at 1500 rpm, generating 415 V +/- 5% at 0.8 p.f, 50Hz, 0.85 load factor, 3 phase, 4 wire system generally conforming to BS: 2613 & IS: 4722. The neutral of the DG set shall be provided with low set earth fault relay using 60/5A 5P10 10VA CT in the neutral earthing conductor . The DG set shall be provided with Engine control panel for mouting Engine control unit, control switches etc.				

		The control panel shall be provided with all engine protection equipments, indications etc The DG set shall be suitable for AMF operation with DG set and include all necessary control cabling from DG set to AMF panel and Main LT panel for AMF and load sharing operation.				
		Both Engine and Alternator shall be mounted on common channel iron base frame, and with standard accessories such as antivibration pad, lead acid batteries (as specified by engine manufacturer) and engine driven battery charger along with leads, battery stand, fuel piping from fuel tank to Engine, electronic governor, Residential silencer, suitable size cable termination box etc as required. Rate shall be inclusive of all lift, lead charges etc. The work should be as per Electrical Inspectorate / Pollution control board norms.	Each	1		
7		Supply & installation of exhaust gas piping of suitable diameter for 160kVA DG set as per manufactures standard welded black MS, B class pipe confirming to IS:3589 cut to required lengths and installed with necessary bends, supports and clamps, anti-vibration mountings, insulation of exhaust system with mineral wool / Rockwool, 50mm thick wire mesh & aluminum cladding etc as required.	Rm	16		

8		Supply, Installation, Testing & Commissioning of MV panel, cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, including internal wiring with suitable size wires, rotary handle, spreaders, 3mm thick gland plate, hinged type door with neoprene gasket etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
		Incomer				
		250A, TPN, 35kA, MCCB with thermal magnetic based adjustable OL, SC protection - 1 no.				
		Busbar				
		1 Set of 300 A TPN busbars of high conductivity electrolytic quality Aluminium alloy and suitable size earthing conductor through out the panel for its earthing.				
		Instruments				
		2A, C curve SP MCB - 3 nos.				
		RYB indication lamp, LED type - 3 nos.				
		1 No 3 phase Digital Multi function meter to read V, A, F, kWh Acc class 1.				
		250/5A 10VA class 1 resin cast CT -				

		1 set				
		Required Danger boards, signages, lettering etc.				
		Outgoing.				
		125A, TPN, 16kA, MCCB with thermal magnetic based adjustable OL protection - 1 no.				
		100A, TPN, 16kA, MCCB with thermal magnetic based adjustable OL protection - 3 no.				
		63A, TPN, 16kA, MCCB with thermal magnetic based adjustable OL protection - 4 no.	Each	1		
9		Supply, Installation, Testing & Commissioning of cubicle type AMF panel board, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, including internal wiring with suitable size wires, rotary handle, spreaders etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
		Incomer				
		2 nos.250A, 35kA, FP MCCB having isolation duty with E/F release, adjustable thermal magnetic release for O/L & SC protection.				
		2 nos. 250A, FP, AC3 duty Power Contactor.				

		Electrical & mechanical interlock between the incomers.				
		Busbar				
		1 Set of 250 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
		Instruments				
		2 No 3 phase Digital Multi function meter to read V, A, F, kWh with Acc class 1.				
		2 Set of phase indicating lamps, LED type, RYB				
		1 Set of indicating lamps for Main On, DG On, Load on DG etc.				
		2 Set of 2A 10kA C curve SP control MCB				
		2 Set of 250/5A, Class 1.0, 10VA, Cast Resin CT for metering.				
		1 set Low set earth fault relay connected with the neutral CT of DG set.				
		1 set microprocessor based AMF control relay with all protective features for the starting and stopping of the DG set automatically.				
		1 set Auto / manual, test, off selector switch.				
		1 set SMPS based battery charger with inbuilt auto/manual current & float/boost facility adjustment with DC Volt meter & Ammeter(separate)				
		Required Danger boards, signages, lettering etc.				

		The panel shall be with all required accessories & control wiring for AMF operation.	Each	1		
10		Supply, Installation, Testing & Commissioning of 50kVAR APFC panel, cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, Free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system , including internal wiring with suitable size wires, rotary handle, spreaders etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
		Incomer				
		1 No 100A, TPN, 25kA, MCCB with Thermal Magnetic release, having adjustable OL & SC protection.				
		Busbar				
		1 Set of 100 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy and suitable size earthing conductor through out the panel for its earthing.				
		Instruments				
		1 No 3 phase Digital Multi function meter to read V, A, F with Acc class 1.				
		1 Set of phase indicating lamps, LED type, RYB.				
		1 Set of 2A 10kA C curve SP				

		control MCB				
		1 Set of 100/5A, Class 1.0, 10VA, Cast Resin CT for metering				
		1 no. 6 stage APFC relay				
		6 set On, Off push button				
		6 set On, Off LED type indication lamp				
		1 set Auto / manual selector switch.				
		Required Danger boards, signages, lettering etc.				
		Outgoing				
		1No 40A, TPN, C curve MCB.				
		5 Nos 32A, TPN, C curve MCB.				
		1 Nos. 15kVAR MPP heavy duty capacitor with capacitor duty contactor				
		2 Nos. 10 kVAR MPP heavy duty capacitor with capacitor duty contactor				
		2 Nos. 5 kVAR MPP heavy duty capacitor with capacitor duty contactor				
		1 Nos. 5 kVAR MPP heavy duty capacitor directly connected				
		The panel shall be provided with required ventilating louvers and panel mounted cooling fan for the capacitor bank chamber with thermostat and control switch.	Each	1		

11		Supply of 11kV, 3Cx150sqmm (E) grade XLPE insulated PVC sheathed compact circular armoured aluminium conductor HT power cable, insulation screened with extruded semi conducting compound in combination with copper tape suitable for 11kV earthed system confirming to relevant standard.	m	40		
12		Supply of the following size 1.1kV grade XLPE insulated PVC sheathed, armoured Aluminium conductor power cable confirming to IS 7098 (part 1) amended upto date.				
12.1		3.5 x 185 sqmm cable	m	40		
12.2		3.5 x 70 sqmm cable	m	65		
12.3		3.5 x 50 sqmm cable	m	110		
12.4		3.5 x 35 sqmm cable	m	100		
12.5		3.5 x 25 sqmm cable	m	175		

13		Supply and providing 6 mm thick & 1 m wide electrical grade chequered type rubber mat to withstand 3.3 KV dielectric strength conforming to IS 5429/1969.	m	10		
14		Supply and providing 12 mm thick & 1 m wide electrical grade chequered type rubber mat to withstand 15 KV dielectric strength conforming to IS 5429/1969.	m	5		
15		Supply, fabrication and fixing 3 nos MS Fire buckets on suitable fabricated MS angle iron stand with hook, painting with red paint & filled with dry sand as required with all required accessories.	Set	1		
16		Supply and providing 15" long rubber hand gloves 15kV.	Pair	2		
17		Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	Each	2		
18		Supply and providing Electrical main single line Diagram duly framed and placed in a conspicuous location for clear vision.	Each	1		

19		Preparation of electrical drawing, submission of drawings to Electrical inspectorate / EB and obtaining approval, arranging inspection for entire installation and other utilities, obtaining road cutting permission obtaining sanction orders for the energisation of the installation complete. Including all incidental expenses except the fees payable to the statutory authorities in the name of client.	Job	1		
		Total amount of LMR items				
		<u>DSR Item</u>				
		Cable Tray				
20.1	4.1	Supply and installing following size of perforated GI cable trays with perforations not more than 17.5% in convenient sections, jointed with connectors, suspended from the ceiling with GI suspenders / fixed to walls with suitable GI clamps, including bolts and nuts, bends, reducers, Tees, cross members etc as required.				
20.1.1	4.1.3	200 mm width x 50 mm depth x 1.6 mm thickness	m	55		
20.1.2	4.1.4	300 mm width x 50 mm depth x 1.6 mm thickness	m	70		
		Earthing				
21.1	5.4	Earthing with GI earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	4		

21.2	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	6		
21.3	5.7	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	m	490		
21.4	5.8	Supply and laying 25mm x 5mm copper strip at 0.5m below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc as required (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced 50mm).	m	80		
21.5	5.9	Supply and laying 25mm x 5mm GI strip at 0.5m below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc as required (Jointing shall be done by overlapping and with 2 sets of GI nut bolt & spring washer spaced 50mm).	m	90		
21.6	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	m	140		
21.7	5.15	Providing and fixing 25 mm X 5 mm GI strip on surface or in recess for connections etc. as required.	m	60		

21.8	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable as required.	m	480		
21.9	5.19	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable as required.	m	330		
		MV Cable laying and Termination				
22.1		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
22.1.1	7.1.1	Upto 35 sq. mm	m	220		
22.1.2	7.1.2	Above 35 sq. mm and upto 95 sq. mm	m	160		
22.1.3	7.1.3	Above 95 sq. mm and upto 185 sq. mm	m	30		
22.2		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
22.2.1	7.5.1	Upto 35 sq. mm	m	60		
22.2.2	7.5.2	Above 35 sq. mm and upto 95 sq. mm	m	50		
22.2.3	7.5.3	Above 95 sq. mm and upto 185 sq. mm	m	10		

22.3		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.				
22.3.1	7.6.2	Above 35 sq. mm and upto 95 sq. mm	m	40		
22.3.2	7.6.3	Above 95 sq. mm and upto 185 sq. mm	m	65		
22.4	7.7	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
22.4.1	7.7.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	110		
22.4.2	7.7.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	m	65		
22.4.3	7.7.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	m	10		
22.5		Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
22.5.1	7.8.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	55		
22.5.2	7.8.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	m	35		
22.5.3	7.8.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	m	15		

22.6	7.9	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	Each	12		
		HV Cable laying and Termination				
23.1		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
23.1.1	8.1.2	Above 120 sq. mm and upto 400 sq. mm	m	35		
23.2		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.				
23.2.1	8.4.2	Above 120 sq. mm and upto 400 sq. mm	m	20		
23.3		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
23.3.1	8.3.2	Above 120 sq. mm and upto 400 sq. mm	m	10		
24.1		Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1				

		KV grade as required.				
24.1.1	9.1.27	3.5 x 185 sqmm	Nos	8		
24.1.2	9.1.23	3.5 C x 70 sq.mm	Nos	4		
24.1.3	9.1.22	3.5 C x 50 sq.mm	Nos	6		
24.1.4	9.1.21	3.5 C x 35 sq.mm	Nos	4		
24.1.5	9.1.20	3.5 C x 25 sq.mm	Nos	8		
25.1	10.4.2	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core,150sqmm XLPE aluminium conductor cable of 11 KV grade as required :	Each	2		

25.2	10.5.3	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core, 150sqmm XLPE aluminium conductor cable of 11 KV grade as required :	Each	1		
26.1	14.13.3	Providing, laying and fixing of 100mm dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required	m	30		
26.2	14.14.2	Providing, laying and fixing of 150 mm dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.	m	90		
		Total Amount in words and figures in Rs				

SI No	Description of Products	Qty	Unit	Rate in words and figures in Rs	Amount in Rs.
	ARASALAR COMPLEX				
	SHED 3				
1	Linea 1350x600	4	No:s		
2	PCH 7045 revolving	12	No:s		
	SHED 4				
4	Cabin Dfine 1650x2550 (incl storage)	5	No:s		

5	Pulse HB chair	5	No:s		
6	Oxbo visitor chair	10	No:s		
7	OfficerWS with storages	24	No:s		
8	Bravo MB chairs	24	No:s		
	SHED 5				
	Girls Common room & Boys Common Room				
9	insight 1800x900	8	No:s		
10	Unwind chair	48	No:s		
11	Maintanance - Enterprise 1500x600	2	No:s		
12	PCH 9U02R	2	No:s		
13	PCH 9U12 R	4	No:s		
	SHED 6				
14	Cabin Dfine 1650x2550 (incl storage)	9	No:s		
15	Pulse HB chair	9	No:s		
16	Oxbo visitor chair	12	No:s		
	SHED 7				
17	ESCA COT	2	No:s		
18	Midas 3S	2	No:s		

19	midas 2 S	2	No:s		
20	Crystalline Coffe table	2	No:s		
	Total Amount in words and figures in Rs				

AIR CONDITIONING WORKS

Sl no	DSR item ref no	Item Description	Unit	Quantity	Rate in words and figures in Rs	Amount in Rs.
1	LMR	Supply, installation, testing and commissioning of Air Cooled High Wall mounted Split Air Conditioner of following capacity consisting of high wall mounted type room unit (fan coil) with cordless remote control and one number outdoor condensing unit comprising of energy efficient suitable rotary compressor for operation on single phase, 230 V, 50Hz supply, fixing the outdoor unit on a raised platform as per manufacturers recommendation and fixing of room (fan coil) unit on wall, standard 4 m distance refrigerant copper piping with 13mm nitrile rubber insulation, providing and making interconnection between room & condenser as per site conditions, comprising of 1" dia drain PVC pipe with insulation 4m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit, ODU MS stand, first charge refrigerant gas, suitable stabilizer etc complete as required.				
1.1		2 TR 5 star rated as per BEE	Nos	12.00		
1.2		1.5 TR 5 star rated as per BEE	Nos	50.00		

1.3		1TR 5 star rated as per BEE	Nos	5.00		
1.4.		Additional Copper Piping Beyond 4M	Rmt	280.00		
		Total Amount in words and figures in Rs				