

TENDER

FOR

CONSTRUCTION OF ADDITIONAL FLOORS IN

NEW BUILDING AT

AKKULAM FACTORY OF HLL, THIRUVANANTHAPURAM

PART-III
PRICE BID

TENDER NO. HLL/ID / 13/66
September 2013



INFRASTRUCTURE DEVELOPMENT DIVISION
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1 COMMERCIAL CONDITIONS

1.0.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.

1.0.2 The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for **Construction of Additional floors in New Building at Akkulam Factory of HLL at Thiruvananthapuram.**

1.0.3 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/equipment, labour or any other reasons whatsoever during the contract period and valid extension on the case may be.

1.0.4 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

1.1 UNIT RATES

1.11 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

1.2 BRIEF DESCRIPTION OF PRICING

1.2.1. Unforeseen difficulties for which provision has not been made in the tender will in no way relieve the successful tenderer from the full execution of the work.

1.2.2 The price quoted shall be the final amount for this finished work.

1.3 INCOME TAX

Any payment to the contractor as per contract, will be made after deducting income tax as per the rules and regulations.

1.4 SALES TAX AND EXCISE DUTY

The tenderer shall clearly indicate sales tax, Excise and other duties as applicable in his offer for carrying out this work.

1.6. SUBMISSION OF BILL

1.6.1. The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill.

The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

1.6.2. Within the above frame work of the terms of payment the contract's interim bills will have to be of a minimum value of Rs.25.0 lakh only.

1.7. EXTRA ITEMS

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the employer.

1.7.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

1.7.2 All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

1.8. OVER TIME WORK

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Engineer-in-charge. He should also

provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

- 1.8.1. The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Engineer-in-charge on any point of dispute between the various parties shall be final and binding.
- 1.8.2. It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.
- 1.8.3. The contractor shall co-operate with other agencies appointed by the owners for the work to proceed smoothly with the least possible delay and to the satisfaction of the owners, architects and the consultants.
- 1.8.4. The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

1 SPECIAL CONDITIONS

2.1. EXECUTION WORK

- 2.1.1. The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Engineer-in-charge from time is to be carried out and completed in all parts to the entire satisfaction of the Employer. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contract.

2.2. CERTIFICATE OF COMPLETION

- 2.2.1 The contractor shall intimate to the Engineer-in-charge in writing as and when the works are completed and put into beneficial use in order to enable the consultants to check certify to the owners to take over the plants.
- 2.2.2 The work shall not be considered as completed and put into beneficial use until the consultants have certified in writing that the same has been completed and put into beneficial use.
- 2.2.3 The defects liability period of one year shall commence from date of such completion or any specific date mentioned therein.

LIST OF APPROVED MAKES - CIVIL

Sl. No	Materials	Manufacturers / Agencies
1	Ready mixed Concrete	UltraTech, RAMCO, ACC, Birla. Design mix vetted through government engineering college to be produced by vendor and got approved by engineer in charge.
2	Ordinary Portland Cement (Minimum 43 Grade)	UltraTech, RAMCO, Chettinad, IndiaCements, Birla (Grasim), ACC
3	Reinforcement/Structural Steel (Each LOT shall accompany manufacturer's Test Certificate)	SAIL, TISCO, RINL
4	White Cement	JK Cement, Birla White
5	Vitrified Tiles	Nitco, Johnson, Naveen, Euro, Somany, AGL, Johnson, Kajaria, Marbita
6	Flush doors	Kutty Flush Doors, Mysore Boards, Indian Plywood Mfg, Co, 'KIT' Ply' brand or any BIS approved brand
7	Fire doors	Shakti Met-Dor, Godrej, Sukri, Pacific works controls
8	FRP Doors	Fibrevent, Techno skills or Equivalent (or as approved by E-in-C)
9	Aluminium Fittings	Everite, Garnish, Crown Classic
10	Hydraulic floor Spring	Everite, Garnish, Hardwyn, Dorma
11	Aluminium Extruded Sections	Jindal, Hindalco, Indalco
12	Aluminium Doors/Windows	As approved by E-in-C
13	Paints, Distempers	Jenson & Nicholson, Asian, ICI, Nerolac, Berger
14	Glazing	Float Glass of Modiguard or Saint-Gobain
15	Water proofing Works	As approved by E-in-C
16	Hydraulic Door Closers	Hardwyn, Everite, Garnish, Dorma

17	Water Proofing Cement Paint	Showcem India, ICI, Nerolac
18	Ceramic Glazed Floor Tiles	Nitco, Orient, Kajaria, Somany, Naveen, AGL, Johnson
19	Cast Iron Pipe and Fittings (Soil Pipes)	BIC, HEP, NECO, Ajmera
20	GI Pipes (ISI marked)	TATA, Zenith, Jindal, Gujarat Steel, ITC
21	GI Fittings (ISI marked)	‘R’ Brand, UNIK or equivalent
22	Gunmetal Valves & Fittings	Premier, Leader, Zoloto, or ISI marked brand
23	CP Brass Sanitary and water supply Fittings	Jaguar/Essess/SOMA/BILMAT/ Dripless or equivalent approved by E-In-C
24	Vitreous China Sanitary ware	Hindustan, EID Parryware, Cera
25	WC Seats & Covers	Commander, Diplomat, Admiral (or as approved by E-In-C)
26	CI Fixtures, CI Cover & Frame	Ashok Iron Works/Bombay Iron Works/A Husainji / Ismaelji, Neco, BIC, RIF
27	CPVC Pipes	Astral Polytechnik, Ashirvad, Ajay Industrial corp, Prince, Supreme
28	Curtain/Wall/Structural Glazing	Specialist Agency to be employed with Prior Approval of E-In-C
29	Plywood Products, Parcticle Boards & Veneers	Duroply (Green Marked, BWR Century Plywood, Green Plywood Kitply, Mysore Boards
30	Adhesive	Pidilite, Araldite
31	Plastic Laminates	Formica, Greenlam, Bakelite HYLAMylam
32	Powder Coatings	Berger/Nerocoat/Jenson & Nicholson
33	Tile Joint Filler	Bal Adhesives & Grouts,”ROFFE” Rainbow Tile Mate, Silicon Sealnet of GE Bayer Silicon/”Zentrival FM” of MC-Bauchemie (India) P Ltd
34	MS Tubes	TATA or equivalent
35	Roof Water Proofing	India Water Proofing, CICO, SIKA

36	Silicon Sealant	GE Bayer Silicone, SIKA
37	Anchor Fastener	Hilti, Bosch
38	Formwork Release Agent	Fosroc, MBT, MC Baucheme CICO, ADO Conmat
39	EPOXY	FOSROC. SIKA Qualcrete, Aradlite MBT
40	Water proofing System	CICO, FOSROC, SIKA, Supreme Siltech Chemicals, ADO Conmat
41	Stainless Steel Sinks	Prestige/AMC/Jayna/Kingston/Neelkanth
42	CP Waste, Spreaders for Urinals	Jaguar / Essess
43	Sensor based Auto Flushing System for Urinals	AOS Systems/Angash
44	SFRC Manhole Covers	Southern Concrete Industries, Rajvaibav Enterprises or equivalent
45	UPVC Pipes/Fittings	Supreme/Prince/ Finolex
46	Mirror	Atul/Modifloat/Saint Gobain/Golden Fish/AIS

LIST OF APPROVED MAKES FOR ELECTRICAL WORKS

S. No.	MATERIALS	PREFERED MAKE
1	LT UG cables	Gloster / Torrent / Havells / Polycab
2	LT cable gland, lugs	Comet / Dowell / Jainson / Hex
3	MCCB	L&T / Siemens / Schneider / GE
4	SDFU, Isolators	L&T / Siemens / Schneider / GE
5	Relays	L&T / GE / Schneider / Siemens.
6	Resin cast CTs	Kappa / Intrans / Resitech / PGR Powertech
7	Measuring Instruments	AE / Conserv / Rishab / Schneider / L&T
8	Starters /Contractor /Bi metal Relay	L&T / Siemens / Schneider / GE / Beluk
9	Push Button /Indicating Lamps (LED Type)	Siemens / L&T / Schneider
10	Control Fuse Base with HRC Fuse	L&T / GE / Siemens / Schneider

11	Light fitting	Philips / Wipro / GE
12	Ceiling fan, Wall, Exhaust fans	Crompton / Usha / Bajaj
13	Industrial Exhaust fan, Wall fan	Almonard / Crompton / Bajaj
14	MCBs, DBs, Industrial plugs	Legrand / Schneider / Siemens
15	PVC wires (Copper)	RR Kables / Finolex / Panasonic / Lapp Kabel
16	Cat 6 UTP, telephone, co-axial cable	Finolex / RR Kabel / Panasonic / Belkin
17	Modular Switches	Legrand-Arteor / MK-Aspect / Panasonic-Vision / Crabtree - Murano
18	PVC Conduit & accessories, Casing & capping	Precision / Avon Plast / /Konseal / Balco
19	Cable tray	Profab / Patny / Indiana / Elcon
20	Lamps	Philips / Wipro / GE / Osram
21	Capcitor	Universal / Mehar / L&T / Siemens

BILL OF QUANTITIES

ABSTRACT

SEC.	DESCRIPTION OF ITEM	AMOUNT (Rs.)
A	CIVIL WORKS	
B	ELECTRICAL WORKS	
	GRAND TOTAL	

CONSTRUCTION OF ADDITIONAL FLOORS IN NEW BUILDING AT AFT

Part - I : CIVIL WORKS

SI. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
1	<p>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 but excluding 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. All works above plinth level upto floor V level</p> <p>(Note :- Cement content considered in this item is @ 370 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately</p> <p>All works above plinth level upto floor V level.</p>	cum	65.00		

SI. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
2	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.(Note :- Cement content considered in this item is @ 370 kg/cum. Excess/less cement used as per design mix is payable/recoverable separatelyAll works above plinth level upto floor V level.	cum	215.0		
3.a	Add for using extra cement in the items of design mix over and above the specified cement content there in.	qtl	28.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
3.b	Extra for R.C.C./ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	cum	280.0		
4	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo Mechanically Treated bars	Kg	37,500		
5.a	Centering and shuttering including strutting, propping etc. and removal of form for :Suspended floors, roofs, landings, balconies and access platform	sqm	1,120.0		
5.b	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	770.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
5.c	Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	335.00		
5.d	Stairs, (excluding landings) except spiral-staircases	sqm	75.00		
5.e	Edges of slabs and breaks in floors and walls. Under 20 cm wide	m	275.00		
6.a	Brick work with F.P.S bricks of class designation 75 in superstructure above plinth level upto floor V level in cement mortar 1:6 (1 cement: 6 coarse sand)	cum	92.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
6.b	Half brick masonry with bricks of class designation 75 in superstructure upto V level. Cement mortar 1:4 (1 cement :4 coarse sand)	M ²	445.00		
7.a	Extra for brick work/ AAC block masonry/ Tile brick masonry in super structure above floor V level, for each four floors or part thereof by mechanical means.	cum	92.00		
7.b	Extra for half brick masonry in superstructure, above floor V level for every four floors or part thereof by mechanical means.	sq.m	445.00		
8	Structural Steel work riveted, bolted or welded in built up sections, trusses & framed work including cutting hoisting fixing in position & applying priming coat of approved steel primer all complete.	Kg	200.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
9	Providing and fixing M.S. fan clamp type I of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs during laying including painting the exposed portion of loop , all as per standard design complete .	each	2.00		
10	Providing and fixing hand rail by welding etc. to steel ladder railing balcony railing & staircase railing including applying a priming coat of approved steel primer. Powder coated MS tube	Kg	550.00		
11	Supplying and fixing hand rails with 304 grade polished stainless steel pipe 2mm wall thickness for stair cases. 50mm diameter for hand rails and 100 mm dia for newel post and 25mm dia balusters 30cm c/c and 2nos horizontals welded together, including all necessary fittings etc. as per the drawing and direction of the Engineer - in – charge. Hand rails shall be fixed in the floor/steps with expansion hold fasters of required size including drilling etc. complete	Kg	45.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
12	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished rough with sponge.	Sqm	875.00		
13	12 mm cement plaster finished with a floating coat of neat cement of mix :1:4 (1 cement: 4 fine sand)	Sqm	2,250.00		
14	6 mm cement plaster of mix:1:3(1 cement:3 fine sand)	Sqm	1,400.00		
15	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water thinnable priming coat with cement primer to under side of roof slab	Sqm	924.70		

SI. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
16	Finishing walls with Acrylic Smooth exterior paint of required shade 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)	Sqm	875.00		
17	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 to the inside walls	Sqm	2,250.00		
18	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :- Two or more coats to window grills	Sqm	200.00		

SI. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
19	Polishing on wood work with ready made wax polish of approved brand & manufacturer on New work	Sqm	45.36		
20	Providing and laying vitrified floor tiles in different sizes of 10mm thickness with water absorption less than 0.08% and conforming to IS: 15622, of JOHNSON, NITCO, ORIENT, KAJARIA or approved make 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. of size 600 x 600mm	Sqm	330.00		
21	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete. 40mm thick with 20mm nominal size stone aggregate.	Sqm	300.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
22	Providing and fixing 18mm 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 of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Area of slab upto 0.50 sqm	sqm	14.00		
23	Granite stone flooring with 18mm thick Granite (sample to be approved by engineer in charge) over 20mm average thick base of cement mortar 1:4(1 cement : 4 coarse sand) laid & jointed with grey cement slurry including filling of joints with grey cement slurry mixed with matching colour pigment, complete as per directions.In treads and risers of staircase, lobby, corridors etc	Sqm	120.00		
24. a	Extra for pre finished nosing to treads of steps of granite stone.	m	137.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
24. b	Extra for granite stone flooring in treads of steps and risers using single length up to 2.00 metre.	sq.m	32.00		
25	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 and dash fasteners to be paid for separately): a) For fixed portion. Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as directed by the engineer in charge.	Kg	1,260.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
26	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 (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as directed by the engineer in charge.	Kg	750.00		
27	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 5.50 mm thickness	sqm	150.00		
28	Providing & fixing Solid door made from 35 mm flush door of size as per site condition, finished with 1 mm thick laminate from both side. & Teak wood beading & locking system with SS Mate finished mortise type lock & SS handle As per architect suggested with necessary hardware with SS hinges etc. complete as per the drawing & design or as directed Engg.-in charge.	Sqm	11.00		

SI. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
29	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	2.00		
30	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg., for doors, including cost of cutting floors , embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.	Each	2.00		
31	Providing and fixing in position TW frames for doors 100X75mm. The frame should be FRENCH polished of the approved shade. Second class teak wood	cum	0.20		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
32	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90mm x 45mm having single rebate of 32mm x 15mm to receive shutter of 30mm thickness .The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat . Door frame laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame.	Rm	10.00		
33	Providing & fixing semi unitized structural glazing system to support/hold glass having main frame work of mullions 63 X 57 X 2mm wt. 1.715 Kg/m of designed extruded sections to with stand and fabricated fixed at all levels, elevation and heights. The extruded section shall be finished, with electrolytic colour anodized of minimum 15 microns Extruded section shall be of 6063 T 6 Alloy. Fastening, straps, nuts, bolts, rivets, washers and other fastening materials shall be in stainless steel. Rate shall include EPDM, approved silicon sealant of recommended grade from DOW corning/equivalent etc., complete for a full proof system. Glass : 6mm Reflectasol Green / Blue . (Saint Gobain Toughened Glass or eq)	Sqm	120.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
34	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc. consisting of following operations. Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm. Of cement admixed with proprietary water proofing compound conforming to IS: 2645 over the RCC slab including cleaning the surface before treatment. Laying cement concrete using broken bricks/brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS :2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645.Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300 mm square. The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge. With avg thickness of 120mm and min thk at khurra as 65 mm for terrace	Sqm	315.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
35	Providing and fixing on wall face unplastised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.(a) 110 mm diameter	Rm	70.00		
36	Providing and fixing PVC moulded fitting for rigid PVC rain water pipes (a) 110mm bend	Each	2.00		
37	Providing and fixing PTMT grating of approved quality and colour. 150 mm nominal size square 100 mm diameter of the inner hinged round grating	NOS	2.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
38. a	Providing and jointing PVC pipes of (pressure 10Kg/cm ²) for water supply including testing of joints, concealing the pipes & trenching & refilling wherever required etc complete. 20mm PVC pipe	Rm	20.00		
38. b	25mm PVC pipe	Rm	25.00		
39	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors a) 100mm inlet and 75mm outlet.	Each	3.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
40	Providing and fixing unplasticised P.V.C connection pipe with brass unions :- 45 cm length,15MM nominal bore	each	2.00		
41	Providing & fixing PVC Fittings and fixtures Conforming IS specifications including cutting and making good the walls etc complete, 110mm dia plain elbow	each	1.00		
42	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	12.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
43	Providing and fixing chlorinated PVC connection pipe with brass union 1/2" dia nominal bore	Each	20.00		
44. a	<p>Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.</p> <p>Concealed work including cutting chases and making good the walls etc</p> <p>15mm dia. nominal bore</p>	Metre	50.00		
44. b	20mm dia nominal bore	Metre	25		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
45. a	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. - External work 20mm dia nominal bore	Metre	30.00		
45. b	25mm dia. nominal bore	Metre	30.00		
45.c	40mm dia. nominal bore	Metre	30.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
45. d	50mm dia nominal bore	Metre	30.00		
46. a	Providing and fixing gun metal Gate valve with CI wheel of approved quality (screwed end) 25mm dia nominal bore	Each	1.00		
46. b	40mm dia. nominal bore	Each	2.00		
46.c	50mm dia. nominal bore	Each	2.00		

SI. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
47	<p>Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS: 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required:</p> <p>White Vitreous china Orissa pattern W.C. pan of size 580 x 440mm with integral type foot rests.</p>	Each	2.00		
48	<p>Providing and fixing white vitreous china pedestal type water closet(European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :W.C. pan with ISI marked white solid plastic seat and lid</p>	Each	2.00		
49	<p>Providing and fixing toilet paper holder :</p> <p>Vitreous china</p>	Each	2.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
50	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements. Weighing not less than 106 gms.	Each	2.00		
51	Providing and fixing jetspray , 1 m long flexible tube and wall hook of JAQUAR or equivalent	Each	2.00		
52	Providing and fixing Jaquar continental series double hook (cat no- 1161N) or equivalent	each	10.00		
53	Providing and fixing Jaquar- Continental series bib cock of short thread (cat no- 037) or equivalent	Each	8.00		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
54	P & F angular stop cock of continental series of Jaquar (cat no - 053)	each	25.00		
55	P & F concealed stop cock 1/2" of continental series (cat no- 069) of Jaquar or equivalent	Each	8.00		
56	Providing and fixing Jaquar- Continental series LONG BODY bib cock with wall flange (cat no- 107) or equivalent	Each	9		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
57	Providing and placing on terrace (at all floor lvls) polyethylene water storage tanks ISI 12701 marked with cover and suitable locking arrangements and making necessary holes for inlets, outlets and overflow pipes but without fittings and the base support for tank	litre	12000.00		
58. a	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : 20mm dia	Each	1.00		
58. b	25mm dia	Each	11		
59. a	Providing and fixing on wall face unplastised - Rigid PVC soil/ waste water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.PVC 110mm dia pipes	Metre	75		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
59. b	PVC 75mm dia pipes	Metre	30		
60. a	Providing and fixing CPVC clips of approved design for fixing the pipes with the wall For 110 mm dia pipe	Each	50		
60. b	For 75 mm dia. Pipe	Each	30		
61. a	Providing and fixing ISI marked PVC bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.110MM	Each	5		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
61.b	75MM	Each	4		
62.a	Providing and fixing double equal ISI marked PVC junction of required degree with access door, insertion rubber washer 3 mm thick bolts and nuts complete 100 x 100 x 100mm	Each	1		
62.b	75x75x75	Each	12		
63	Providing and fixing ISI marked PVC trap of self cleansing design including lubrication etc complete with door100mm inlet 75mm outlet	Each	20		

Sl. NO	DESCRIPTION	UNIT	QTY	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
64	Providing ISI marked Type -A PVC pipe for sewer drainage including jointing with seal ring and all the necessary fittings, elbows, hardwares etc complete. 160mm dia	rm	50.00		
65	Making openings in retaining walls/slabs/beams of up to 150 mm dia using core cutting machine without disturbing the existing structure as directed by the engineer in charge	each	5.00		

Part - I : ELECTRICAL WORKS

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
DSR Item					
A.	LT Wiring				
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR 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. FR PVC insulated copper conductor single core cable etc as required.				
1.1	Group B	Each	225		
2	Wiring for twin control light point with 1.5 sq.mm FR 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. FR PVC insulated copper conductor single core cable etc as required.	Each	4		
3	Wiring for circuit/submain wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface medium class PVC conduit as required.				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
3.1	2 x 1.5 sq.mm + 1 x 1.5 sq.mm earth wire	m	110		
3.2	2 x 2.5 sq.mm + 1 x 2.5 sq mm earth wire	m	460		
3.3	2 x 4.0 sq.mm + 1 x 4.0 sq mm earth wire	m	510		
3.4	4 x 6 sq. mm + 2 x 6 sq. mm earth wire	m	220		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
3.5	4 X 10 sq. mm + 2 X 10 sq. mm earth wire	m	60		
3.6	4 X 16 sq. mm + 2 X 16 sq. mm earth wire	m	80		
4	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.				
4.1	20 mm	m	85		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
4.2	25 mm	m	125		
5	Supplying and drawing 2 pair 0.5 sq mm FR PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.	m	220		
6	Supplying and fixing Telephone socket outlet on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	Each	25		
7	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	30		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
8	Supply and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	50		
9	Supplying and fixing following size / modules, PVC box alongwith modular base & cover for modular telephone/ data sockets in recess / surface etc as required.				
9.1	1 or 2 module	Each	25		
10	Supplying and fixing suitable size PVC 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	40		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
11	Supplying and fixing suitable size PVC 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	30		
12	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	Each	30		
13	Supplying and fixing brass batten/ angle holder including connection etc. as required.	Each	8		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
14	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, false ceiling with chain and hook including connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	45		
15	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable etc. as required.	Each	30		
16	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				
16.1	Upto 450 mm sweep	Each	20		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
17	Supplying and fixing extra conduit down rod of 20 cm length G.I. pipe 15 mm dia, heavy gauge 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	20		
B.	MCBs, DBs and Cable Trays				
1	Supplying and fixing following way prewired vertical type TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box 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, terminal connectors for all incoming and outgoing circuits, duly prewired with adequate size of FR PVC insulated copper conductor upto the terminal connector/ neutral link, earthing etc as required (But without MCB/ RCCB/ Isolator). (Note: Prewired vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
1.1	8way, Double door	Each	1		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
2	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FR PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required.(But without MCB/ RCCB/ Isolator)				
2.1	4 way, Double door	Each	1		
2.1	6 way, Double door	Each	2		
2.3	8 way, Double door	Each	1		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
3	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
3.1	40 amps	Each	2		
3.2	63 amps	Each	2		
4	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.				
4.1	25 amps	Each	1		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
4.2	40 amps	Each	2		
4.3	63 amps	Each	2		
5	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.				
5.1	Single pole	Each	60		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
5.2	Triple pole	Each	10		
5.3	Triple pole and neutral	Each	4		
6	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	40		
7	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 commissioning etc as required.	Each	17		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
8	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	15		
9	Supplying and fixing 30 amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 amps "C" curve, TPMCB, 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	3		
10	Supply and installing 150mm x 50 mm depth x 1.6mm thick perforated GI cable trays with perforations not more than 17.5% in convenient sections, joined with connectors, GI suspenders including nuts and bolts, bends, tees etc as required	m	30		
11	Supply and installing 300mm x 50 mm depth x 1.6mm thick perforated GI cable trays with perforations not more than 17.5% in convenient sections, joined with connectors, GI suspenders including nuts and bolts, bends, tees etc as required	m	35		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
C.	Earthing				
1	Earthing with G.I earth pipe 4.5 meter long ,40mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangements and watering pipe etc .(but without charcoal and /coke and salt salt) as required.	Set	14		
2	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		
3	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.	Each	4		
4	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	20		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
5	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	30		
6	Providing and fixing 25 mm X 5 mm Copper strip on surface or in recess for connections etc. as required.	m	80		
7	Providing and fixing 25 mm X 5 mm GI strip on surface or in recess for connections etc. as required.	m	80		
8	Providing and fixing 8 SWG dia G.I. wire on surface or in recess for loop earthing as required.	m	120		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
9	Providing and fixing 4mm dia copper wire on surface or in recess for loop earthing as required.	m	80		
D	Lighting Conductor				
1	Providing and fixing of lightning conductor finial, made of 25 mm dia 300mm long ,Copper tube, having single prong at top, with 85mm dia 3mm thick copper base plate including holes etc. complete as required.	Each	2		
2	Providing and fixing GI tape of 20 mm x3mm thick on parapet or surface of wall for lightning conductor complete as required (For horizontal run).	m	110		
3	Providing and fixing GI tape of 20 mm x3mm thick on parapet or surface of wall for lightning conductor complete as required (For vertical run)	m	150		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
4	Providing and fixing testing joint made of 20mm x3mm thick GI strip 125mm long , with 4 nos of G.I bolts ,nuts, chuch nuts and spring washers etc. complete as required.	m	4		
5	Providing and laying G.I tape 32mm x 6mm from earth electrode directly in ground as required.	m	125		
E.	MV Cable laying and Termination				
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.				
1.1	Above 95 sq. mm and upto 185 sq. mm	m	150		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
2.1	Above 95 sq. mm and upto 185 sq. mm	m	150		
3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in existing RCC /Hume / Metal pipe as required.				
3.1	Above 95 sq. mm and upto 185 sq. mm	m	20		
4	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.				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
4.1	Upto 35 sq. mm	m	205		
4.2	Above 35 sq. mm and upto 95 sq. mm	m	100		
4.3	Above 95 sq. mm and upto 185 sq. mm	m	20		
5	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.				
5.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	200		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
5.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	m	100		
5.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	m	10		
6	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.				
6.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	200		
6.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	m	50		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
6.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	m	10		
7	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	20		
8	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.				
8.1	3.5 x 185 sqmm cable	Each	4		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
8.2	3.5 x 95 sqmm cable	Each	4		
8.3	3.5 x 70 sqmm cable	Each	2		
8.4	3.5 x 35 sqmm cable	Each	8		
8.5	3.5 x 25 sqmm cable	Each	8		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
8.6	4 x 16 sqmm cable	Each	16		
8.7	4 x 10 sqmm cable	Each	4		
8.8	4 x 6 sqmm cable	Each	20		
9	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
9.1	50 mm dia	m	50		
10	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	20		
A.	LT Panel Board and Accessories				
1	Supply, Installation, Testing & Commissioning of cubicle type Main LT 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				
	1 no. 400A, 35kA, TP+NL MCCB having isolation duty with E/F release, adjustable thermal magnetic release for O/L & SC protection.				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
	Busbar				
	1 Set of 500 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
	1 Set of 25 x 3 mm copper busbars of high conductivity electrolytic quality shall be provided 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 No 3 phase 4 wire CT operated energy meter, 5-10A, 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 400/5A, Class 1.0, 10VA, Cast Resin CT for metering.				
	1 Set of 400/5A, Class 1.0, 10VA, Cast Resin CT for APFC relay.				
	3 nos Ammeter (0-400A), Acc class 1 with 240 deg., defl. Scale.				
	Outgoing				
	2 nos. 160A, 25kA, TP+NL MCCB with, adjustable thermal magnetic release for O/L & SC protection.				
	3 nos. 125A, 25kA, TP+NL MCCB with, adjustable thermal magnetic release for O/L & SC protection.				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
	6 nos. 63A, 16kA, TP+NL MCCB with, adjustable thermal magnetic release for O/L & SC protection.	Job	1		
2	Supply, Installation, Testing & Commissioning of Second Floor 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				
	125A TP+NL 25kA MCCB with thermal magnetic release with adjustable OL, SC protection - 1 no.				
	Busbar				
	1 Set of 150 A TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
	1 Set of 25 x 3 mm copper busbars of high conductivity electrolytic quality shall be provided through out the panel for its earthing.				
	Instruments				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
	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 Acc class 1.				
	125/5A 10VA class 1 resin cast CT - 1 set				
	3 phase 4 wire CT operated, (5-10) A electronic type energy meter, Acc. Class 1 - 1 no.				
	Outgoing.				
	63A TPN C curve MCB - 1 no				
	40A TPN C curve MCB - 2 nos.				
	32A TPN C curve MCB - 4 nos.				
	25A TPN C curve MCB - 2 nos.	Job	1		
3	Supply, Installation, Testing & Commissioning of Third Floor panel, cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalized, 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.				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
	Incomer				
	160A TP+NL 25kA MCCB with thermal magnetic release with adjustable OL, SC protection - 1 no.				
	Busbar				
	1 Set of 200 A TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
	1 Set of 25 x 3 mm copper busbars of high conductivity electrolytic quality shall be provided 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 Acc class 1.				
	160/5A 10VA class 1 resin cast CT - 1 set				
	3 phase 4 wire CT operated, (5-10) A electronic type energy meter, Acc. Class 1 - 1 no.				
	Outgoing.				
	63A TPN C curve MCB - 2 nos.				
	40A TPN C curve MCB - 2 nos.				
	32A TPN C curve MCB - 5 nos.				
	25A TPN C curve MCB - 2 nos.	Job	1		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
B.	LT Cables				
1	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.				
1.1	3.5 x 185 sqmm cable	m	360		
1.2	3.5 x 95 sqmm cable	m	95		
1.3	3.5 x 70 sqmm cable	m	65		
1.4	3.5 x 35 sqmm cable	m	45		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
1.5	3.5 x 25 sqmm cable	m	85		
1.6	4 x 16 sqmm cable	m	230		
1.7	4 x 10 sqmm cable	m	50		
1.8	4 x 6 sqmm cable	m	240		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
C.	Light Fixtures				
1	Supply of 1x28W fluorescent tube fitting, powder coated CRCA steel channel complete with all electrical accessories like electronic ballast, lamp holder, 28W T5 lamp etc complete as required. (Philips TMS122M 1xTL-528W EBT / Wipro WIF 90128 SG / GE GET CI 1x28 C/S HF)	Each	20		
2	Supply and installation of recess mounted type 2x36W CFL clean room light fitting with option of rear opening / front opening in robust CRCA housing, glass cover with all electrical accessories like electronic ballast, lamp holder, 36W CFL lamps, mounting chain, hook etc complete as required. (Philips FCS650 2xPL-L36W EBP FOP GT / Wipro WIP 43236 SGA / GE CRP 236CFL BO)	Each	40		
3	Supply of 1x36W surface mounting mirror optic luminaire with paralite P5 louvers with all electrical accessories like electronic ballast, lamp holder, 36W CFL lamps etc complete as required. (Wipro WVP 25136 SGW / GE GE CFL 2x18W MOP)	Each	10		
4	Supply and installation of 2x36W recess mounted direct - indirect downlight luminaire, with translucent acrylic diffuser, powder coated CRCA housing complete with all electrical accessories like electronic ballast, lamp holder, 36W CFL lamp, mounting chain, hook etc complete as required. (Philips FBS580 2xPL-L36W IC OD DF-WH / Wipro WVP 76236 SGA)	Each	40		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
5	Supply and installation of LED Ltg, recess type, downlighter with special frosted diffuser. Wipro LD46-006-XXX-WH-XX / Philips BBS180 1xDLED-5000 PSU WH / GE GDR006 4050)	Each	20		
6	Supply & installation of recess mounted 1x18 watts down light fixture, with aluminium reflector, CRCA sheet housing, fresnel lens, complete with all accessories like ballast, 18W CFL lamp etc complete as required. (Wipro WCP 34118 SG / Philips FBH150 M 1xPL-C/4P 18W HFM / GE GECCFL1x18 DN)	Each	20		
7	Supply of 1x18W surface mounted luminaire with opal acrylic diffuser complete with all electrical accessories like electronic ballast, lamp holder, 18W T8 lamps etc. complete with all mounting accessories etc as required. (Philips TMS520/ 118 / Wipro WRF 21118 / GE TRI 118)	Each	15		
8	Supply of ceiling fan 1200 mm sweep, double ball bearing, approved colour and quality with original down rod, suspension shackle, canopy etc without regulator complete with all accessories as required. (Usha Sonata max / Crompton High Breeze)	Each	30		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
9	Supply and installation of 400 mm sweep, wall fan, swinging type with speed control, necessary adapter, of approved colour, for single phase 230 volt, 50Hz AC supply complete with motor, capacitor all accessories as required complete. (Usha Helix High speed or Equi).	Each	10		
10	Supply of heavy duty exhaust fan 300 mm sweep, 900 rpm, metal blades of approved colour, for single phase 230 volt, 50Hz AC supply complete with motor, capacitor and all accessories as required complete.	Each	10		
11	Supply of 250mm sweep, 1250 rpm, louvered ventilating fan suitable for single phase 230 volt, 50Hz AC supply complete with motor, capacitor, louvers/shutters and all accessories as required complete. (Make : Usha Crisp Air or equivalent)	Each	10		
C.	Telephone & Networking				
1	Supply and Installation of 10 pair MDF box, back mount frame and original krone connectors with all accessories.	Each	4		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
2	Supply and laying 10 pair 0.5 sqmm FR PVC insulated annealed copper conductor, un armoured telephone cable in surface / through pipe / including all accessories as required.	m	150		
3	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	20		
4	Supply and laying 4 pair CAT 6 UTP cable in the existing surface / recessed steel / PVC conduit as required.	m	400		
D.	Miscellaneous				
1	Supplying and fixing following rating, 415 Volts, "C" series, miniature circuit breaker suitable for power loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc as required.				

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
1.2	40A TPN MCB	Each	4		
1.3	63A TPN MCB	Each	4		
2	Supply and fixing FP sheet steel enclosure on surface recess along with 40 / 63 amps 415V FP Isolator complete with connections, testing and commissioning etc as required.	Each	5		
3	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		

Sl. No	Description	Unit	Qty	Rate in Rs. (in words & in fig.)	Amount in Rs. (in words & in fig.)
4	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	4		
5	Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	Each	4		
6	Preparation, submission of drawings and applications for the installation and service connection to Electrical Inspectorate / KSEB and obtaining Power allocation, sanction and energising of the installation, including obtaining sanction from the authorities complete Including providing necessary assistance to the client for obtaining sanctions.	Job	1		
	Total Amount in Rs				