

**Main Summary for Indian Bank, HO, 2nd Floor refurbishment work,
Chennai**

S.no	Description	Amount- (in both figures and words)
1	Civil	
2	Interior	
3	Electrical	
4	Airconditioning	
5	Modular Furniture	
6	Access Control	
7	CCTV	
8	Plumbing and Sanitary	
9	Public Address System	
10	EPABX	
	GRAND Total	

(Rupees _____)

Date :

Place:

REFURBISHMENT CIVIL WORK FOR INDIAN BANK 2nd FLOOR , CHENNAI.

S.No	Description	Qty	Per	Rate-Rs.	Amount Rs.
1	Dismantling the 6" B.W with glazed tiles in DGM Toilet, clinic, security AGM cabin and opening of window wall removing the debris from 2nd floor, carting away from the site.	1215	sft		
2	Ceramic Wall tile chipping removing in clinic and DGM toilets the debris form 2nd floor, carting away from the site	300	sft		
3	Ceramic floor chipping and 6" high depth jelly removing in clinic area the debris form 2nd floor, carting away from the site	260	sft		
4	Removing the existing particle board grid false ceiling carefully in all respect at 2nd floor and carting away from the site	17025	sft		
5	Removing the existing flush door with frames carefully at 2nd floor and stock the same at ground floor as directed by the bank.	11	nos		
6	Removing of existing TMD, server and credit department aluminium glass partition with door with frame carefully at 2nd floor and stock the same at ground floor as directed by the bank	11000	sft		
7	Removing of existing credit department,system and security department wooden glass partition with door with frame carefully at 2nd floor and stock the same at ground floor as directed by the bank	6800	sft		
8	Removing of existing main door cum glass partition with door with frame carefully at 2nd floor and stock the same at ground floor as directed by the bank	525	sft		
9	Removing of existing in TMD modular parition cum table carefully at 2nd floor and stock the same at ground floor as directed by the bank	850	sft		
10	Removal of existing Wall panelling GYM and conference the debris clear from site.	600	sft		
11	Removing of tables, counter,steel cupboards & storage carefully in all respect at 2nd floor and stock the same at ground floor as directed by the bank	260	Nos		
12	Removing of storage carefully in all respect at 2nd floor and stock the same at ground floor as directed by the bank	1000	sft		
13	Removal of existing false flooring in server room the debris at 2nd floor and stock the same at ground floor as directed by the bank	1350	sft		

S.No	Description	Qty	Per	Rate-Rs.	Amount Rs.
14	Providing and laying Brick Jelly Lime Concrete in sunken portion of wcs, bathroom etc., The rate includes preparation if surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with cement slurry in DGM toilets	17.21	cft		
15	Providing and laying water proofing treatment with pressure grouting in sunken portion of wcs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound. The rate includes preparation if surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with slurry in DGM toilets	38.09	sft		
16	Charges for Chipping the existing ceiling area and at 2nd floor carting away the debris	250	sft		
17	Towards charges for re-polishing of flooring in lift lobby area & stair case from ground floor to second floor etc., complete.	2100	sft		
18	Providing one coat of Plastering with CM 1:3 , 12mm thick admixed with CICO No .1 & Application of 2 coats of Tapecrete Acrylic polymer cementations coating over plastering & fixing GI Nozzle of 15mm dia at 1m C/C & injection of CICO Non shrink polymertic grouting	250	sft		
19	Application of two coats tapecrete & one coat plaster with CM 1:3 & providing & fixing 15mm dia GI Nozzle at 1m c/c injection of chemical.	250	sft		
20	Providing and laying design wall tiles of size 300 x 600mm approved make with cement mortar 1:6(1 cement : 6 sand) in line and level including cleaning the finished surfaces including skirting out the joints, flush pointing of joints of tiles with cement paste / grout mixed with colour pigments matching the shade of tiles, etc. at all heights as per specifications, standards and instructions of Engineer in charge. colour and shade . Basic landing cost of tile Rs 50/ sft including chipping of existing wall tile debris clear from site in service lift wall	210	sft		
21	Supply and fixing ventilator of size 2'0" x 2'0" using analyzed aluminium frame with 5mm thk pinned glass with grill in executive toilets	2	nos		
22	Removing of Existing MS frame with glass shutter window in credit, security and TMD dept., including Civil touch up and plastering carefully in all respect at 2nd floor and stock the same as directed by the bank	2220	sft		

S.No	Description	Qty	Per	Rate-Rs.	Amount Rs.
23	Supplying and fixing of Aluminum Sliding window using of Jindal Three Track Special section Anodizing channel of 15 micron coating Special section of 1.5mm thick, Door Interlock, window felt, 20mm sliding runner , Star lock with concealed handle, 5mm clear glass (Saint cobin), Epdm Rubber gasket, fittings with door and color as per your specification etc...	1300	sft		
24	Supplying and fixing of Aluminum Sliding window using of Jindal Three Track Special section Anodizing channel of 15 micron coating Special section of 1.5mm thick, Door Interlock, window felt, sliding runner , Star lock with concealed handle, 5mm Tinted glass (Saint cobin), Epdm Rubber gasket, fittings with door and color as per your specification etc...	R.O	sft		
25	Supplying and fixing of Aluminum Sliding window using of Jindal Three Track Special section Anodizing channel of 15 micron coating Special section of 1.5mm thick, Door Interlock, window felt, 30mm sliding runner, Star lock with concealed handle, inside 5mm clear glass outside 5mm Tinted glass center gap 8mm (Saint cobin), Epdm Rubber gasket, fittings with door and color as per your specification etc...	590	sft		
26	Supplying and fixing of Dow corning 789 Sealant or Dollar Sealant is weather proof and guaranteed for fifteen years etc.	1880	sft		
27	Removing of existing centralize Aircondition duct, coller, grills and all frames in all respect at 2nd floor and stock the same at ground floor as directed by the bank	1	lot		
28	Removing of existing Electrical fittings, conduits, wire, MCB, DB and switch board in all respect at 2nd floor and stock the same at grolund floor as directed by the bank	1	lot		
29	Providing and laying REINFORCED CEMENT CONCRETE M-20 GRADE with 20mm and down size graded crushed stone aggregates in SUPER STRUCTURE in suspended floors, slabs, beams, columns, walls, including counterforts, staircases, landings, steps, facias, fins, fins, moulding, gutters,shelves, canopies, lintels, girders, ducts, brackets, chajjas with drip moulds, pedestals, posts, struts, equipments/machine foundations, ramps, etc., including cost of admixture if used providing pockets, openings, recesses, chamfering wherever required, vibrating, tamping, curing, and rendering if required to give a smooth and even surface etc. (Excluding the cost of reinforcement and shuttering) for all heights above the plinth level in any shape, position, thickness, etc. all complete as specified, shown and directed. All materials including cement supplied by the contractor.	45	cft		

S.No	Description	Qty	Per	Rate-Rs.	Amount Rs.
30	Providing and laying BRICK MASONRY with bricks of Class 5.0 in cement mortar 1:6 (1Cement: 6Sand) and conforming to IS:1077 in one or more brick thickness and in any shape (excluding circular/curved brick masonry) at all depths and heights above and below plinth level including the cost of materials, labour, scaffolding/staging, sampling and testing, soaking of bricks, cutting and laying of bricks, providing recesses, making opening of any shape and size, finishing the joints flush below ground level, and raking out the joints above ground level, sealing the gap between masonry and soffit of beam/slab, embedding the fittings and fixtures, curing etc.,all complete as per specifications. All materials including cement supplied by the contractor.	390	cu ft		
31	Providing and laying HALF BRICK MASONRY with bricks of Class 5.0 and conforming to IS:1077 in cement mortar 1:4 (1 cement : 4 sand) in any shape, including the cost of labour, materials, scaffolding/ staging, sampling, and testing and soaking of bricks, cutting and laying of bricks , providing and opening of any shape and size , raking out the joints, supplying and placing 2 Nos. 6mm dia. M.S. bars at every fourth course , sealing the gap between masonry and soffit of beam/slab , embedding the fittings and fixturers , curing etc. all complete as per specifications and as directed by the Engineer-In-Charge. (Rate is inclusive of cost of reinforcement and cement).	1700	sqft		
32	Providing 12mm Thick PLAIN CEMENT PLASTER in internal walls of cement mortar 1:4(1Cement:4Fine sand by volume) on masonry,PCC/RCC surfaces including preparation of base, cleaning, hacking of concrete surfaces,marking the button marks packing of electrical, plumbing works, Chicken mesh fixing, scaffolding, finishing, curing etc.for all heights and also including cost of cement etc complete., and as directed and Complete.	4800	sqft		
33	Providing 15mm Thick PLAIN CEMENT PLASTER in External walls of cement mortar 1:5(1Cement:5Fine sand by volume) on masonry,PCC/RCC surfaces including preparation of base, cleaning, hacking of concrete surfaces,packing of electrical, plumbing works,marking the button marks, scaffolding, finishing, curing etc.for all heights and also including cost of cement etc complete., and as directed and complete. in eastern side window passage	470	sft		
34	Supply and fixing scuffolding work with causirino poles for G+2 in external wall in UPS & Server room side windows etc., complete.	2400	sft		

S.No	Description	Qty	Per	Rate- Rs.	Amount Rs.
35	Supply and laying wall tiles in toilets of size 300 x 600mm approved make with cement mortar 1:6(1 cement : 6 sand) in line and level including cleaning the finished surfaces including skirting out the joints, flush pointing of joints of tiles with cement paste / grout mixed with colour pigments matching the shade of tiles, etc. at all heights as per specifications, standards and instructions of Engineer in charge. colour and shade . Basic landing cost of tile Rs 50/ sft including chipping of existing wall tile debris clear from site in service lift wall	2350	sft		
36	Supply and laying in toilets antiskid floor tiles of size 300 x 300mm approved make with cement mortar 1:6(1 cement : 6 sand) in line and level including cleaning the finished surfaces including skirting out the joints, flush pointing of joints of tiles with cement paste / grout mixed with colour pigments matching the shade of tiles, etc. at all heights as per specifications, standards and instructions of Engineer in charge. colour and shade . Basic landing cost of tile Rs 61/ sft including chipping of existing wall tile debris clear from site in service lift wall	525	sft		
37	Supply and fixing mirror using 6mm imported mirror over 12mm thk bison board around wooden bleeding with polish finish	70	sft		
38	supply and fixing 18mm thk black granite in wash basin area with support from wall and floor in existing platform including wash basin cutting, with cement mortar 1:3 and pointing etc., complete cost of the tile 150/-	100	sft		
39	Labour charges for full moulding polish finish	60	rft		
40	Supply and fixing urinal partition double side polish finish 20mm thk granite fixing on wall and floor with edge polish finish	18	sft		
41	Removing of existing platform in eastern side window corridor fixing of aluminium frame of size 50x25 mm with covering 12mm thk bison board with paint finish etc., complete	410	sft		
	SUB HEAD TOTAL				
	(In words				

REFURBISHMENT INTERIOR WORK FOR INDIAN BANK 2nd FLOOR, CHENNAI.

S.no	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	FALSE CEILING WITH PLAIN GYPSUM BOARD				
1	Providing and fixing Gypsum Board false ceiling laid in 2 levels with the difference in height to accommodate ceiling lighting consisting: Frame work of intermediate channels (M.F.T) at 122cm centre along one direction M/F ceiling section MF5 at 45.7 cm centre along other direction. Perimeter channels (MF 6A) along walls all-round perimeter side of the ceiling, all to detail as per drawing. The intermediate channels suspended from ceiling, through strap hangers 25x0.5mm (MF8) at 122 cm centre connected to soffit cleats P534 (27x37x25x1.6mm) the cleats connected to ceiling through metal expansion rawl plugs 1/2" dia and 17/16" long with necessary bolts and nuts etc. all connected with additional perimeter channels (MF 6A) for openings for light fixtures, AC ducts, vertical drops, offsets etc. wherever necessary all to detail and as per direction. 12 mm thick Gypsum sheets fixed to underside of suspended grid with 25 mm screws to form grids of 45.7cm x 122cm varied along wall ends etc. including painting the underside of gypsum sheet with 3 coats of plastic emulsion paint roller finish over 1coat primer with 2 coat putty of approved colour and shade rate all inclusive of etc. complete.make Asian / ICI Dulux / Nerolac (as per direction of the Architect) etc., complete	10150	Sft		
2	Providing & fixing wall cladding above falseceiling in indoor unit isolated at cadd management, ATM monitoring and Fire proof filing unit using GYPSUM board with 50x25mm aluminium frame with 12.5mm thk gypsum board on one side 1 coat primer, putty (As per direction of the Architect) etc., complete	650	Sft		
3	MODULAR FALSE CEILING				
	Providing & Fixing of Mineral Fibre Acoustical Suspended Ceiling System with DUNE (MICRO LOOK) SUPRAFINE 15 mm EXPOSED GRID. The tiles should have Humidity Resistance (RH) of 99%, NRC Upto 0.5, Light Reflectance >85%, Thermal Conductivity k = 0.052- 0.057 w/m K, Colour White, Fire Performance Class 0/Class1 (BS 476 Part 6&7) in module size of 600 X 600 X 16 mm with Bio Block coating on the face of the tile, suitable for Green Building application, with Recycled content of 63%. The grid should be of make with 15mm wide T - section flanges colour white having rotary stitching on all T sections i.e. the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 32 mm and a load carrying capacity of 7.57 Kg/M. The T Sections have a Galvanizing of 120 grams per M2 & passed through 500 hrs of Salt test.	5872	Sft		

S.No	Description	Qty	Per	Rate-Rs.	Amount Rs.
4	Providing & Fixing of Mineral Fibre Acoustical Suspended Ceiling System with FINE FISSURED (MICRO LOOK) EDGE TILES WITH SUPRAFINE 15 mm EXPOSED GRID. The tiles should have Humidity Resistance (RH) of 99%, NRC 0.55, Light Reflectance >85%, Thermal Conductivity k = 0.052- 0.057 w/m K, Colour White, Fire Performance Class0/Class1 (BS 476 Part 6&7) in module size of 600 X 600 X 16 mm with Bio Block coating on the face of the tile, suitable for Green Building application, with Recycled content of 63%. The grid should be of make with 15mm wide T - section flanges colour white having rotary stitching on all T sections i.e. the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 32 mm and a load carrying capacity of 7.57 Kg/M. The T Sections have a Galvanizing of 120 grams per M2 & passed through 500 hrs of Salt test.	RO	sft		
B	FLOORING				
1	Supplying and fixing with full body vitrified tiles of size 1000 X 1000mm of approved first quality of tile thickness set with paper joints fixed with bonding chemical such as Waber / Bal endura including pointing with grouting of matching shade mixed and handing over in acceptable condition including cost of covering with POP/ PVC sheet cleaning etc,as direct. sample to be get approve by Architect (Basic rate inclusive of land tile cost Rs.136/- incl. existing floor tile hacking etc.,, complete. no additional cost	14800	Sft		
2	Supplying and laying Vitrified tiles skirting 4" high same as above. Item No. B1etc.,, complete	1725	Rft		
3	EXCELON - VINYL COMPOSITION TILE Providing and fixing of homogenous Vinyl Composition Tiles of size 300mm x 300mm having an overall thickness of 2.0mm manufactured by World Industries, the critical radiant flux greater than 11kW/m2 as per ISO 9329-1 , smoke resistance less than 750% minutes as per ISO 9239.1, electrical resistance of 1010 Ohm, wear resistance less than 10mm3 as per EN 660-2, to be installed on a sub-floor which is structurally stable, clean, leveled, dry and free from dust, dirt wax, grease or any other foreign material with a water based adhesive, rolled thereafter with a 50 kg roller. Installation: It is important to ensure the sub floor on which the tiles are being laid is smooth, flat & hard & free from moisture, grease, etc. In case of uneven sub floor the same should be leveled by self leveling compound. The tiles should be laid using recommended adhesives.After installation 2 coats each of PU based sealant and polish should be applied.	750	sft		
C	PARTITIONS				
	FULL HEIGHT SOLID / FULL GLAZED / PARTLY GLAZED PARTITIONS				

S.no	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Supply and fixing main entrance and conference room partition using 12mm thk toughen glass with patch fitting with frosting film as per detail drawing design. Rate inclusive of all (mesurement taken below false ceiling only) etc., complete	475	sft		
2	supply and fixing full height partition for using 50x25mm aluminium section (14gauge) with 12.5mm thk gypboard on both sides with 6mm thk toughen glass frost film with 3 coats of plastic emulsion paint roller finish over 1coat primer with 2 coat putty of approved colour in DGM, AGM ,TCS, discussion room and card management.	880	sft		
3	supply and fixing full height partition for using 50x25mm aluminium section (14gauge) with 12.5mm thk gypboard on both sides with frost film and 3 coats of plastic emulsion paint roller finish over 1coat primer with 2 coat putty of approved colour in DGM, AGM ,TCS, discussion room, Rest room, Atm monitoring, Store room, conference, and card management.	2450	sft		
D	DOOR/ partly glazed door				
1	Supplying & fixing Main entrance, both wings entrance double door and conference room door using 12mm thk toughen glass with patch fitting such as SS finish lock, 32mm dia 24" high handle and floor spring with frost flim etc., completed Rate inclusive of all etc., complete	240	Sft		
2	Supplying and fixing of other entrance Aluminum Double door cum partition using of aluminium section Anodizing channel of 15 micron coating section thickness of Vertical 2" x 1.75" x 1.5mm, Horizontal 4" x 2" x 1.5 mm, clip, door felt, 'H' type 304 grade 450 mm x 25mm SS handle, 6mm Toughen glass (Saint cobin), Epdm Rubber gasket, floor spring, pivot fittings with door lock, concealed tower bolt, Frost film and Anodizing color as per your specification etc.	115	Sft		
3	Providing and fixing fire retardant door 30mm thk with 25 x 12mm thk wooden beeding with 6mm thk toughen glass and ball bearing hinges 6" high SS finish, mortice type lock, door closer, and door stopper. The door paint finish etc., complete	325	Sft		
4	Providing and fixing fire retardant door 30mm thk with 25 x 12mm thk wooden beeding and ball bearing hinges 6" high SS finish with top and bottom sliding rail with concelaed handle. The door paint finish in DGM way t rest room, executive toilet, EPBAX, Gents & Ladies toilets etc., complete	84	Sft		
5	Providing and fixing fire retardant door 30mm thk with 25 x 12mm thk wooden beeding with ball bearing hinges 6" high SS finish and door closer, The door paint finish etc., complete	216	Sft		

S.no	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
6	Supplying and fixing factory made 28mm thk PVC rigid single panel PVC door shutters made with moulded PVC channel of 5mm thick sheet and 24mm x 59mm wide to from styles. PVC sheet for top rail and baottom rail on either side and 5mm thick, PVC sheet as gap insert fo rtop rail and bottom rail panelling of 5mm thick an djoined together with solvent cement adhesive etc., and the dimension of the framke is 40mm x 50mm and hollow section PVC moulded frame etc., complete. RAte to include cost of 3 nos. of 125mm aluminium butt hinges, 2 nos of 200mm long aluminium tower bold on both sides of the shutter, 2 nos of aluminium 100mm long handle, door catch - 1 bno etc. complying withstandard specifictions and including labour charges for fixing etc., all complete as directed by the Architect-in charge	140	Sft		
7	Providing and fixing cot of size 6'0"x 3'0" using 18mm ply with laminate finish inside country wood of size 4" x 2" horizontal and vertical in wooden support the top covered by 12mm ply with 6" high matressess and two pillows. etc., complete	2	nos		
8	Supply and fixing ceramic white magnetic writing board of size 8'0" x 4'0" (mat finish) framed with powder coated aluminium channel with accessories of magnet duster, magnetic buttons- 4nos and 6" x 6" pelmetn using 18mm fire retardant plywood support from partition inside aand outside to bepaint finish etc completed	2	nos		
9	Supply and fixing column cladding for using 50x 25mm aluminium section with 12.5mm gypboard with putty, prima and three coats of emulsion paint including switch board cutting,	1900	sft		
10	Supplying & fixing vertical blinds for windows 100mm wide.shade approval by architect / bank engineer	1950	sft		
11	Providing and fixing trap door for using 12mm thk fireretardant board with aluminium frame 50x 25mm support from ceiling and hardware fittings hinges, lock and magnetic catch etc in indoor unit covering..., complete	220	Sft		
G	PAINTING				
1	Prepare surfaces of painting apply one coat of primer,putty and two coats paint and final coat roller finish of plastic emulsion to interior faces of wall including scraping the existing surfaces shade approval by architect / bank engineer. etc., complete	4200	sft		
2	Prepare surfaces of wall and remove dirt, old painting, strains, install level marks and apply POP punning to achieve a perfect plane for receiving the painting treatment. etc., complete	4000	sft		

S.no	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
3	Prepare surfaces of painting apply one coat of primer,putty and two coats paint finish of luster paint , to interior faces of window, door and shutter including scraping the existing surfaces shade approval by architect / bank engineer. etc., complete	500	sft		
4	Prepare surfaces of painting apply one coat of primer,putty and two coats paint and final coat roller finish of OBD to interior faces of wall /ceiling in toilets and AHU including scraping the existing surfaces shade approval by architect / bank engineer. etc., complete	3400	sft		
H	Chairs				
1	Supply of DGM chairs executive high back with chrome base legs, multi stage lock mechanism slide, gas lift, tilting, adjustable lumbar support, polyurethane arm rest, head rest height adjustable, back will be mesh fabric and twin wheel nylon castors. etc., complete	2	each		
2	Supply of visitor chair for DGM chair with medium back, seat with polyurethane moulded cushion back with mesh fabric, tilting, gas lift, synchro mechanism, chrome arm rest, and twin wheel nylon castors. etc., complete	6	each		
3	Supply of AGM chairs executive high back with chrome base legs, multi stage lock mechanism slide, gas lift, tilting, adjustable lumbar support, polyurethane arm rest, head rest height adjustable, back will be mesh fabric and twin wheel nylon castors. etc., complete	4	each		
4	Supply of visitor chair for AGM chair with low back, seat with polyurethane moulded cushion back with mesh fabric, tilting, gas lift, synchro mechanism, chrome arm rest, and twin wheel nylon castors. etc., complete	12	each		
5	Supply of chair medium back, synchro tilt mechanism, gas lift, seat polyurethane moulded cushion, back fabric, height adjustable chrome arm rest and twin wheel nylon castors in Chief Manager, meeting & conference. etc., complete	45	each		
6	Supply of visitor chair for Chief manager & Work station low back, seat with polyurethane moulded cushion back with mesh fabric, tilting, gas lift, synchro mechanism, chrome arm rest, and twin wheel nylon castors. etc., complete	34	each		
7	Supply of chair medium back, synchro tilt mechanism, gas lift, seat polyurethane moulded cushion, back fabric, height adjustable chrome arm rest and twin wheel nylon castors in Workstation, card management & Security chairs etc., complete.	152	each		

S.no	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
8	Supply of sofa in DGM cabin 4" x 2.5" wooden frame with 12 mm thk ply for seat and back and harms with 5" and 4" rubber cover by foam with leather finish with SS legs for 3 seater sofa etc., complete	2	each		
9	Supply of sofa in Lobby cabin 4" x 2.5" wooden frame with 12 mm thk ply for seat and back and harms with 5" and 4" rubber cover by foam with fabric finish with SS legs etc., complete				
a.	3 seater	1	each		
b	4 seater	1	each		
10	Providing and fixing center table of size 4'0" x 2'0" using SS frame with 12mm thk glass top and legs 2" dia pipe support etc., complete	1	each		
11	Providing and fixing corner table of size 2'0" x 2'0" using SS frame with 12mm thk glass top and legs 2" dia pipe support etc., complete	1	No		
	Sub Total				

(In words)

REFURBISHMENT ELECTRICAL WORK FOR INDIAN BANK, 2ND FLOOR, CHENNAI					
	<u>SCHEDULE OF QUANTITIES</u>				
	<u>GENERAL NOTES</u>				
1	The items given in this schedule are provisional. The Contractor shall be paid for the actual quantity of work executed as measured at the site at the rates tendered. The Owner reserves the right to increase or decrease any of the quantities, or to omit totally any item of work. Any claim by the Contractor on these accounts will not be entertained.				
2	All the items of work given in this schedule of quantities shall be executed strictly in accordance with the latest Indian Standard Specifications and the requirements of the Electricity Supply Authority read in conjunction with the relevant drawings and Specifications.				
3	The Contractor shall visit the site and shall satisfy himself as to the conditions under which the work is to be performed. He shall also check and ascertain the location of any existing structure or equipment or any other situation which may affect the work. No extra claim as a consequence of ignorance or on ground of insufficient description will be allowed at a later date.				
4	All equipment and material shall be IS approved.				
5	All approvals shall be obtained from Owner / Consultant				
6	All equipment and material shall be inspected at manufacturer's works as per relevant IS by the Owner or his representative before despatch to site.				
7	All vendor drawings shall be approved by the Owner/Consultant before fabrication work starts.				
8	All Testing and Commissioning shall be as per relevant IS for equipment and IS:732:1989 for the installation. All these testing records are to be maintained and submitted for Owner / Owner's representative.				
9	All items of work under this Contract shall be executed strictly to fulfill the requirements laid down under "Basis of Design" in the specifications. Type of equipment, material specification, methods of installation and testing and type of control shall be in accordance with the specifications, approved shop drawings and the relevant Indian Standards, however capacity of each component and their quantities shall be such as to fulfill the above mentioned requirement.				
10	The unit rate for all equipment or materials shall include cost in INDIAN RUPEES (INR) for equipment and materials including all taxes and duties and also including forwarding, freight, insurance and transport into Contractor's store at site, storage, installation, testing, balancing, commissioning and other works required.				
11	The rate for each item of work included in the Schedule of Quantities shall, unless expressly stated otherwise, include cost of :				
a	All materials, fixing materials, accessories, appliances tools, plants, equipment, transport, labour and incidentals required in preparation for and in the full and entire execution, testing, balancing, commissioning and completion of work called for in the item and as per Specifications and Drawings.				
b	Wastage on materials and labour.				
c	Loading, transporting, unloading, handling/double handling, hoisting to all levels, setting, fitting and fixing in position, protecting, disposal of debris and all other labour necessary in and for the full and entire execution and for the job in accordance with the contract documents, good practice and recognize principles.				
d	Liabilities, obligations and risks arising out of Conditions of Contract.				
e	All requirements of Specifications, whether such requirements are mentioned in the item or not. The Specifications and Drawings where available, are to be read as complimentary to and part of the Schedule of Quantities and any work called for in one shall be taken as required for all.				

f	SOQ shall be read in conjunction with technical specification, drawings, SCC and GCC. In the event of conflict between Schedule of Quantities and other documents including the Specifications and drawings, the most stringent shall apply. The interpretation of the Consultant/Project Manager shall be final and binding.
12	The Contractor shall procure and bring Materials/Equipment to the site only on the basis of drawings approved for construction and shop drawings and not on the basis of Bill of Quantities which are approximate only. This also applies to the Contractor's requisition for Owner supplied materials.
13	The contractor shall cooperate with all trades and agencies working on the site. He shall make provision for hangers, sleeves, structural openings and other requirements well in advance to prevent hold up of progress of the construction schedule. All supports to the civil structure shall be provided with anchor fasteners.
14	On award of the work, contractor shall submit a schedule of construction in the form of a PERT chart or BAR chart for approval of the Project Manager.
15	On award of the work the contractor shall be issued two (2) sets of consultant's drawings. The drawings shall be the basis of contractor's shop drawings.
16	Shop drawings are detailed working drawings coordinated with other trading work, which incorporate the contractor's details for execution of the work and incorporate equipment manufacturer's details and dimensions to ensure that the same can be installed in the space provided.
17	All shop drawings will be made on AutoCAD and colored prints has to be produced for site work.
18	This Schedule shall be fully priced and the extensions and totals duly checked. The rates for all items shall be filled in INK including NIL items.
19	No alteration whatsoever is to be made to the text or quantities of this Schedule unless such alteration is authorised in writing by Consultant. Any such alterations, notes or additions shall, unless authorized in writing, be disregarded when tender documents are considered.
20	In the event of an error occurring in the amount of the Schedule, as a result of wrong extension of the unit rate and quantity, the unit rate quoted by the tenderer shall be regarded as firm and the extensions shall be amended on the basis of rates.
21	Any error in totaling in the amount column and in carrying forward total shall be corrected. Any error, in description or in quantity, omission of items from this Schedule shall not vitiate this Contract but shall be corrected and deemed to be variation required by the Consultant/Project Manager.
22	Rates have been called for a number of items of works, as alternatives which, for the present do not form part of the total value of tender. However the rates for these items shall be quoted, with due care so that in the event of choice of an alternative item of work, said rate shall form part of the contract and shall not violate the contract any way.
23	The contractor shall , from time to time, clear away all debris and excess materials accumulated at the site failing which the same shall be done by Project Manager at contractor's risk and cost and cost of clean up shall be deducted from the contractors prorata bill.
24	After the fixtures, equipment and appliances have been installed and commissioned, contractor shall cleanup the same and remove all plaster, paints, stains, stickers and other foreign matter or discoloration leaving the same in a ready to use condition.
25	On completion of all works, contractor shall demolish all stores, remove all surplus materials and leave the site in a broom clean condition, failing which the same shall be done by the Project Manager at the Contractor" risk and cost. Cost of the cleanup shall be deducted from the contractor's bills on pro-rata basis in proportion to his contact value.

A.	<u>CIRCUIT CUM POINT WIRING</u>				
	The rates for all point wiring items shall also include supplying and fixing of the following:				
1	Conduits, conduit specials, bushes and other fittings.				
2	Approved GI saddles and grouting the same for exposed conduit work.				
3	1.6 mm thick Outlet boxes and junction box.				
4	All fixing accessories such as clips, brass screws etc.				
5	All work & materials necessary for wiring a point circuit of any length from the Final Distribution Board to switch board shall include the circuit wiring except where identified.				
6	Embedding conduits and accessories in walls and floors etc. during construction and / or cutting chases (with chase cutting machine) and making good the same as necessary in the case of concealed conduit work.				
7	Switch, socket outlet and necessary blank plates wherever required.				
8	PVC insulated copper conductor stranded flexible PVC insulated wire of Green colour or Green colour with yellow band for earthing of fixtures, outlet boxes and third pin of socket outlet.				
9	Repainting of conduits, outlet boxes and junction boxes where ever damaged.				
10	All wires shall be IS approved, 1100 volt grade, stranded flexible PVC insulated, FRLS wires.				
11	All sockets shall be shuttered type with earth terminal. All sockets for UPS system shall be provided with distinct RED dot on the socket for easy identification.				
12	Suitable rating of plugs top shall also be provided within the quoted rates for all metal clad splash proof socket outlets.				
13	Separate neutral and earthing wire shall be provided for each circuit				
14	Lighting and power circuit to be kept separate.				
15	GI conduits shall be used for embeded conduiting where as GI conduits shall be used for surface conduiting in places with saline & humid climate where as MS conduits shall be used for surface conduiting in places with dry climate.				
Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
A.	<u>CIRCUIT CUM POINT WIRING</u>				
1	Wiring for the following light points with 2.5 sq.mm PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires of approved make in concealed or surface mounted 25 mm dia 16 gauge MS Conduit including providing and fixing of 6 Amps single pole rocker operated flush mounted switch of approved quality colour make & design in 1.6 mm thick GI box and earthing of fixtures and the outlet box with 2.5 sq.mm PVC insulated copper conductor stranded flexible FRLS wire, complete in all respect.				
1.1	MCB controlled Primary point (from DB to switch board - cost of switch & board NOT included)	Pt.	10		
1.2	Secondary point with switch (from switch board to first point - cost of switch & board included)	Pt.	12		

1.3	Secondary point without switch (from light point to light point - cost of switch & board NOT included)	Pt.	52		
1.4	Primary point without switch (from switch board to switch board looping- cost of switch & board NOT included)	Pt.	24		
2	Wiring for light point as in item No. 1 above but controlled by SPMCB provided in the DB. (Cost of MCB not to be included here)				
2.1	Primary point controlled by one MCB.	Pt.	36		
2.2	Same as above but Secondary point wherever required as per drawing, i.e. Points to be looped with Primary point.	Pt.	190		
3	Wiring for light point as in item No. 1 above but controlled by SPMCB provided in the DB. (Cost of MCB not to be included here). Emergency lights	Pt.			
3.1	Primary point controlled by one MCB.	Pt.	5		
3.2	Same as above but Secondary point wherever required as per drawing, i.e. Points to be looped with Primary point.		50		
4	Wiring for light point as in item No. 1 above, through motion cum presence sensor controlled by SPMCB provided in the DB. (Cost of MCB not to be included here.)				
4.1	Primary point controlled by one day light/presence sensor wherever required as per drawing.(Cost of MCB not to be included here.)	Pt.	5		
4.2	Secondary point with switch (from switch board to first point - cost of switch & board included)	Pt.	9		
4.3	Secondary point without switch (from light point to light point - cost of switch & board NOT included)	Pt.	14		
5	Wiring for 250 volts single phase and neutral a set of 1 No. 6 Amps 3 pin combined switch socket outlet with 2.5 sq.mm. PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wire in surface / concealed 25 mm dia 16 guage MS Conduit including providing and fixing of 1 No. 6 Amps 3 pin switch socket outlet of approved make and design in 1.6 mm thick GI boxes with grid plate and earthing of third pin of the sockets and GI box with 2.5 sq mm. PVC insulated copper conductor stranded flexible FRLS wire (Maximum of 8 set of 6 Amps socket shall be connected on one circuit), complete in all respect. UPS Supply				
5.1	Primary points with a set of 1 No. 6 amps socket outlet controlled by one No. 6 Amps switch.	Pt.	8		
5.2	Same as above but secondary point looped with primary point (1 No. 6 amps socket outlet controlled by one No. 6 Amps switch).	Pt.	4		

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
6	Wiring for 250 volts single phase and neutral 6/ 16 Amps switched socket outlet with 4 sq.mm PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires in 25 mm dia 16 gauge MS conduit including providing and fixing of 6 / 16 Amps 5 pin switched sockets of approved make and design in 1.6 mm thick GI box with grid plates and earthing the third pin of each socket outlet with 4 Sq mm PVC insulated copper conductor stranded flexible FRLS wire, complete in all respect.(Raw power)				
6.1	Primary point for 6/16 amps switched socket outlet	Pt.	8		
6.2	Same as above but secondary point looped with primary point with 16 amps switched socket outlet	Pt.	5		
7	Wiring for AC point with 4 sq. mm. Insulated copper conductor 1100 volts grade stranded flexible FRLS wires of approved make in concealed minimum 20 mm dia 2mm thick PVC Conduit including providing and fixing of 20 amps flush mounted switch at the normal switch level in 1.6 mm thick GI box and 32 amps 3 pin metalclad socket outlet with On indicator with lockable acrylic door and earthing of through the third pin of the socket outlet and GI box with 2.5 sq. mm. PVC insulated copper conductor flexible FRLS wire.	Pt.	11		
8	Wiring for 250 volts single phase and neutral a set of 2 Nos. 6 amps 3 pin switch socket outlet on work station with 4 sq.mm. PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires in 25mm dia. 2mm thick embedded PVC conduit or surface mounted 25 mm dia 16 gauge MS conduit/Existing raceway including providing and fixing of 2 Nos. 6 amps 3 pin switch socket outlet of approved make (model and colour to be approved by Architect) and design in 1.6 mm thick GI boxes with grid plate and earthing of third pin of the sockets and GI box with 2.5 sq mm. PVC insulated copper conductor stranded flexible wires				
8.1	Primary point with 6 amps 3 pin switch socket outlet (raw power)	Pt.	43		
8.2	Same as Item no.7.1 above but secondary point looped with primary point (2 Nos. 6 amps switched socket outlet). (raw power)	Pt.	125		
9	Wiring for 250 volts single phase and neutral a set of 3 Nos. 6 amps 3 pin switch socket outlet on work station with 4 sq.mm. PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires in 25mm dia. 2mm thick embedded PVC conduit or surface mounted 25 mm dia 16 gauge MS conduit/Existing raceway including providing and fixing of 3 Nos. 6 amps 3 pin switch socket outlet of approved make (model and colour to be approved by Architect) and design in 1.6 mm thick GI boxes with grid plate and earthing of third pin of the sockets and GI box with 2.5 sq mm. PVC insulated copper conductor stranded flexible wires				

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
9.1	Primary point with 6 amps 3 pin switch socket outlet (UPS Power)	Pt.	35		
8.2	Same as Item no. 8.1 above but secondary point looped with primary point (3 Nos. 6 amps switched socket outlet). (UPS Power)	Pt.	150		
9.3	Primary point with 6 amps 3 pin switch socket outlet (raw power)	Pt.	7		
9.4	Same as Item no. 9.1 above but secondary point looped with primary point (3 Nos. 6 amps switched socket outlet). (raw power)	Pt.	18		
10	Wiring for 250 volts single phase and neutral a set of 4 Nos. 6 amps 3 pin switch socket outlet on work station with 4 sq.mm. PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires in 25mm dia. 2mm thick embeded PVC conduit or surface mounted 25 mm dia 16 gauge MS conduit/Existing raceway including providing and fixing of 4 Nos. 6 amps 3 pin switch socket outlet of approved make (model and colour to be approved by Architect) and design in 1.6 mm thick GI boxes with grid plate and earthing of third pin of the sockets and GI box with 2.5 sq mm. PVC insulated copper conductor stranded flexible wires				
10.1	Primary point with 6 amps 3 pin switch socket outlet (UPS power)	Pt.	6		
10.2	Same as Item no. 9.1 above but secondary point looped with primary point (4 Nos. 6 amps switched socket outlet). (Ups power)	Pt.	4		
10.3	Primary point with 6 amps 3 pin switch socket outlet (Raw power)	Pt.	1		
10.4	Same as Item no. 9.1 above but secondary point looped with primary point (4 Nos. 6 amps switched socket outlet). (Raw power)	Pt.	1		
11	Providing and fixing of following PVC insulated copper conductor 1100 volt grade stranded flexible FRLS wire in conduit including providing and fixing of conduits concealed or surface mounted making connections complete.	Pt.			
11.1	3 Nos. 2.5 sq.m PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires	RM	RO		
11.2	3 Nos. 4 sq.mm PVC insulated copper conductor 1100 volts grade stranded FRLS wires	RM	RO		
12	Supply, installation, testing and commissioning of 40 amps 4 pole MCB in 1.6 mm thick MS enclosure of approved make design and painted with approved paint shade. (5.5TR AC unit)	Nos	5		

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
13	Supply, installation, testing and commissioning of 63 amps TPN MCCB with operating handle (25 KA) breaking capacity in 1.6 mm thick CRCA sheet steel enclosure of approved make design and painted with approved paint shade. (11 TR AC unit)	Nos	5		
14	Supply, installation, testing and commissioning of 100 amps TPN MCCB with operating handle (25 KA) breaking capacity in 1.6 mm thick CRCA sheet steel enclosure of approved make design and painted with approved paint shade. (60 TR AC unit)	Nos	2		
B	<u>CABLES, MAINS AND SUB MAINS</u>				
	The rate shall also include the following :				
1	Providing and fixing junction boxes with covers including painting where ever required.				
2	Providing all fixing accessories such as clamping devices nuts, bolts and screws.				
3	Wherever the cables are of aluminium and bus bars of copper bimetallic lugs shall be used.				
4	All cable shall be laid with one diameter gap.				
5	All cables shall be IS approved.				
6	Double compression glands				
7	Fire retardent paint one meter on both side of wall penetration and at termination as per specifications.				
8	Burried LT cables to be laid atleast 750 mm below ground.				
B	<u>CABLES, MAINS, SUB MAINS AND CABLE TRAYS</u>				
1	Supplying & laying of following 1100 volt grade XLPE insulated PVC inner sheathed and HR PVC / FRLS PVC outer sheathed aluminium conductor armoured cables as per specification in existing cable trays, ducts, clamped to wall with suitable clamps including, saddles fixing bolts, connecting testing and commissioning.				
1.1	3.1/2 core 300 sq. mm	RM	260		
1.2	3.1/2 core 150 sq. mm	RM	20		
2	Supplying & laying of following 1100 volt grade XLPE insulated FRLS PVC outer sheathed copper conductor armoured cable as per specification in existing cable trays ducts , clamped to wall with suitable clamps, including fixing bolts, connecting testing and commissioning.				
2.1	4 core 16 sq.mm	RM	140		
2.2	4 core 10 sq. mm.	RM	425		
2.3	4 core 6 sq.mm	RM	R/O		
2.4	1 core 6 sq. mm Un Armoured copper cable	RM	25		

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
3	Cable end termination of the following XLPE insulated FRLS PVC outer sheathed aluminium/copper conductor armoured cables of 1100 volt grade including supplying and fixing of bimetallic crimping lugs, double compression glands with earthing.				
3.1	3.1/2 core 300 sq. mm aluminium cable	Nos.	8		
3.2	3.1/2 core 150 sq. mm aluminium cable	Nos.	2		
3.3	4 core 16 sq. mm copper cable	Nos.	4		
3.4	4 core 10 sq. mm copper cable	Nos.	32		
3.5	4 core 6 sq. mm copper cable	Nos.	R/O		
4	Supply and fixing of perforated type factory fabricated GI cable trays of the following sizes including providing GI suspenders and supports as per specifications..				
4.1	450 mm wide	RM	175		
4.2	300 mm wide	RM	65		
4.3	150 mm wide	RM	70		
5	<u>GI Raceway & Junction boxes</u>				
	Providing and fixing 1.6 MM thick anodized aluminium sheets factory fabricated surface mounted raceways with internal partition and knock out holes of the following sizes including providing removable 1.6 mm thick aluminium cover all fixing accessories and earthing with 8 SWG copper earth wire including wall supports, bends, access boxes and tap off boxes end caps, cross over suitable for mounting of switch of approved make.				
5.1	100 mm wide x 40 mm deep raceway	RM	500		
5.2	50 mm wide x 40 mm deep raceway	RM	R/O		
6	Providing and fixing 100 x 100 x 50 mm deep 1.6 mm thick GI sheet junction box including providing 3 mm thick GI sheet cover as per specification.	No.	25		
7	Providing and fixing 150 x 150 x 50 mm deep 1.6 mm thick GI sheet junction box including providing 3 mm thick GI sheet cover as per specification.	No.	45		
8	Providing and fixing 300 x 300 x 50 mm deep 1.6 mm thick GI sheet junction box including providing 3 mm thick GI sheet cover as per specification.	No	75		
C	<u>DISTRIBUTION BOARDS</u>				
	The rates for the distribution boards apart from the Breakers and instruments shall also include the following :				

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
1	Supporting rigid steel framework.				
2	Cubicle type, 14 gauge CRCA sheet steel enclosed.				
3	Complete with interconnections and distribution bus bars.				
4	Proper bonding to earth.				
5	Painting/lettering on Breakers and distribution boards, the location they serve, providing on each panel its circuit diagram.				
6	Providing cable clamps / supports within distribution boards cable alley.				
7	TPN ACB's / MCCB's shall mean 3 pole ACB's / MCCB's with adequate size of neutral link.				
8	All MCB's shall be of minimum 10 KA breaking capacity.				
9	The breaking capacity of MCCB's are mentioned panel wise. All MCCB's shall be with thermal magnetic releases upto 250 amps and microprocessor based above 250 amps capacity, unless specified otherwise.				
10	All motor feeders MCCBs shall be of motor duty.				
11	Distribution panels shall be Powder Coated with Siemens gray paint shade no. RAL-7032 of IS-5.				
12	Degree of protection for following type of distribution panel enclosure shall be as per IS:13947-1993.				
a.	IP 52 for indoor panels.				
b.	IP 55 for outdoor panels.				
13	All MCCB's shall be provided with operating mechanism for door interlock.				
14	Current density of aluminium busbars shall be 0.8 A/sq mm and current density of copper shall be 1.4A/sq.mm				
15	Tinned copper / GI earth bus as specified in the BOQ shall be provided through out the length of each board.				
16	All measuring instruments (Meters) shall be of digital electronic with LED of approved make and compatible with BAS.				
17	All hinged door shall be earthed through 2.5 sq mm tinned braided copper wire.				
18	All panels shall have provision of the following:				
a.	Pad locking of Switch board doors.				
b.	Pad locking of MCCB's handles in "OFF" Position.				
19	2NO + 2NC potential free contacts, connectors, contactors with wiring etc are to be provided for BAS including space required for various transducers in Main Switch Board sections. Only transducers shall be supplied by BAS contractor.				
20	All MCB's used for protection of resistive and lightly inductive load shall be type "B" characteristic and inductive (motor) load shall be of type "C" characteristic and discharge lamps and UPS etc. shall be of type D characteristic.				
21	All incoming and outgoing air circuit breakers shall be placed on middle portion of the vertical in single tier formation.				
22	All PTs / control transformer shall be provided with centre tap earth secondary.				
1	MAIN PANEL				
	Incoming				
	800 amps TPN MCB with following accessories:				
i.	0-500 volts digital electronic volt meter with selector switch through 415 V / $\sqrt{3}$: 110 V / $\sqrt{3}$ PT, primary and secondary of PT shall be protected by 2 amps TP MCB's.	Set			
ii.	0-800 Amps digital electronic ammeter with selector switch and 800/5 amps 15 VA, CL 1 CTs .	Set			

iii.	Phase indicating light through 415 / 110 V PT, primary & secondary of PT shall be protected by 2 amps SP MCB's.	Sets			
	Bus Bars				
	800 amps TPN copper bus bars with coloured heat shrinkable insulated sleeve.	Set			
	Outgoing				
	630 Amps TPN MCCB	2 No			
	250 Amps TPN MCCB	1 No			
	160 Amps TPN MCCB	2 Nos			
	100 Amps TPN MCCB	2 Nos			
	63 Amps TPN MCCB	2 Nos			
	100 Amps TPN MCCB(SPARE)	2 Nos			
	All MCCB's shall be of 25 KA (Ics) breaking capacity.				
	MAIN PANEL described as above	Set	1		
2	POWER PANEL				
	Incoming				
	250 amps TPN MCCB with following accessories:				
i.	0-500 volts digital electronic volt meter with selector switch through 415 V / $\sqrt{3}$: 110 V / $\sqrt{3}$ PT, primary and secondary of PT shall be protected by 2 amps TP MCB's.	Set			
ii.	0-150 Amps digital electronic ammeter with selector switch and 250/5 amps 15 VA, CL 1 CTs .	Set			
iii.	Phase indicating light through 415 / 110 V PT, primary & secondary of PT shall be protected by 2 amps SP MCB's.	Sets			
	Bus Bars				
	300 amps TPN copper bus bars with coloured heat shrinkable insulated sleeve.	Set			
	Outgoing				
	63 Amps TPN MCCB	10 Nos			
	63 Amps TPN MCCB (SPARE)	2 Nos			
	All MCCB's shall be of 25 KA (Ics) breaking capacity.				
	POWER PANEL described as above	Set	1		
3	UPS PANEL-1				
	Incoming				

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
	160 amps TP+2N MCCB with following accessories:(From UPS)	2 NOS			
	Bus Bars				
	100 amps TPN copper bus bars with coloured heat shrinkable insulated sleeve.	Set			
	Outgoing				
	63 amps DP MCB	1 No.			
	63 amps 4P MCB	3 Nos.			
	UPS PANEL-1 described as above	Set	1		
C	FINAL DISTRIBUTION BOARDS				
	Supply, installation, testing and commissioning of the following FDB's fabricated out of 1.6 mm thick CRCA sheet steel , double door construction, powder coated with approved shade and partitions to segregate phases. Approved lockable covers with padlocking arrangement for each phase, recessed in wall or surface mounted final distribution boards of the following description:				
1	12 way TPN DB, 12 Nos. 10 amps SP MCB's per phase with 3 Nos. 40 amps DP ELCB's of 30 mA leakage current and 1 no. 63 amps 4 pole MCB isolator as incomer with separate neutral link for each phase.	Nos.	2		
2	12 way TPN DB, 12 Nos. 20 amps SP MCB's C Curve per phase with 3 Nos. 40 amps DP ELCB's of 100 mA leakage current and 1 no. 63 amps 4 pole MCB isolator as incomer with separate neutral link for each phase.	Nos.	2		
3	12 way TPN DB, 12 Nos. 20 amps SP MCB's D Curve per phase with 3 Nos. 40 amps DP ELCB's of 100 mA leakage current and 1 no. 63 amps 4 pole MCB isolator as incomer with separate neutral link for each phase.	Nos.	2		
4	8 way SPNDB, 8 Nos. 10 amps SP MCB's per phase with 1 no. 63 amps DP MCB isolator as incomer with separate neutral link for each phase.	Nos.	1		
D	SUPPLY OF LIGHTING FIXTURES				
1	The rates shall include all components that may be required to make the supply complete in all respects such as :				
	a. Including All lamps, accessories & electronic ballast unless otherwise specified.				
	b. Internal wiring between accessories.				
	c. Earthing terminal.				
	d. Complete provision for installation.				

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
D	<u>SUPPLY AND INSTALLATION OF LIGHTING FIXTURES</u>				
	Supply of the following lighting fixtures with all fixing accessories etc. as required.				
1	Supply and installation of LED light fixtures as indicated or approved equal in quality and design complete with lamp and drive as required for the fittings. 2x2 tile with system wattage of 50W and efficacy of above 80 lumen per watt.	Nos .	118		
2	Supply and installation of decorative recessed mounting LED down light fittings along with lamp and drive as required for the fittings system wattage of 12W and efficacy of above 80 lumen per watt.	Nos .	149		
3	Supply and installation of decorative recessed mounting LED down light fittings along with lamp and drive as required for the fittings system wattage of 18W and efficacy of above 80 lumen per watt.	Nos .	56		
4	Supply and installation of surface mounted with aluminium reflector light fixture as indicated or approved equal in quality and design complete with lamps 2X 28W	Nos .	24		
5	Supply and installation of surface mounted with aluminium reflector light fixture as indicated or approved equal in quality and design complete with lamps 1X 28W	Nos .	10		
6	Supply and installation of 48" dia sweep ceiling fan with step type fan regulator of approved make complete with all accessories.	Nos .	R/O		
7	Non Regulating high performance, programmable presence detector for lighting control through passive Infrared, Off delay time in steps of 5 mins, with a coverage area of 6 meter in diameter.	Nos .	2		
8	Universal Photocell sensor, high performance regulating and Non Regulating high performance, programmable presence detector for lighting control in closed rooms through Microwave, Off delay time in steps of 5 mins, with a coverage area of 6 meter in diameter	Nos .	6		
9	Supply and installation of 16" dia sweep exhaust fan of approved make complete with all accessories.	Nos .	2		
10	Supply and installation of 9" dia sweep exhaust fan of approved make complete with all accessories.	Nos .	4		
E	<u>EARTHING INSTALLATION</u>				
	Rates shall also include the following :				
1	All fixing accessories such as saddles, screws rawl plugs etc.				
2	Jointing by rivetting and brazing after rivetting in case of copper and welding / bolting in case of GI earthing.				
3	Cutting chases / holes and making good the same wherever required.				
4	Effecting adequate and proper interconnections.				
5	Use of copper thimbles.				

Item No.	Description	Unit	Qty.	Unit Price (Rs.)	
				Rate	Amount
6	Earthing system shall comply to IS:3043-1987.				
7	All earthing pits shall be interconnected.				
8	All equipment motors, DB's, panels to be connected on both ends (double earthing) with suitable strip / wires.				
9	Soil resistivity test shall be conducted of the area where earth pits are to be located.				
	EARTHING INSTALLATION				
1	Supply and fixing of following bare copper /GI tapes / wires including all necessary fixing accessories and effecting connections as per specifications.				
1.1	50 x 6 mm thick GI tape.	RM	20		
1.2	25 x 6 mm thick GI tape.	RM	20		
1.3	25 x 3 mm thick GI tape.	RM	20		
1.4	25 x 3 mm thick Copper tape.	RM	20		
1.5	8 SWG Copper wire	RM	200		
2	Providing and laying of 600 x 600 x 3.15 mm thick tined copper plate electrode, with 2 Nos 50 x 6 mm copper strips from earth plate electrode to inspection chamber, 50 mm dia medium class GI pipe, CI funnel with 20 gauge GI wire mesh, masonry chamber 1000 x 500 mm with concrete base CI heavy duty / chequered plate manhole cover with frame painted with bitumastic paint and packing with mixture of charcoal and common salt around plate electrode including digging of pit upto permanent moisture level and as per soil condition but not less than 3 meters and back filling as required.	Nos	2		
3	Providing and laying of 3mtr long 40mm dia G.I. Pipe with holes drilled diametrically opposite to each other once every 150mm. in an earth pit of 600x600x3500mm filled with salt and charcoal mixed with sand in alternate layers of 150mm each upto a height of 3000mm from bottom. The pipe shall have provision for watering through CI funnel with 20 gauge GI wire mesh, masonry chamber 1000 x 500 mm with concrete base CI heavy duty / chequered plate manhole cover with frame painted with bitumastic paint and provision for connecting earth strips/cables.	Nos	1		
4	Supply and laying of following 1100 volts grade PVC insulated sheathed copper conductor unarmoured cable including copper thimbles, fixing hardware as required.				
4.1	Single core 16 sq.mm Green colour cable	RM	100		
4.2	Single core 6 sq.mm Green colour cable	RM	50		
	Sub total				

(In words

REFURBISHMENT AIRCONDITIONING WORK FOR INDIAN BANK - HEAD OFFICE , CHENNAI.

S.No	Description of Works	Qty	Unit	Rate	Amount
1	Floor Standing Model Air Handling Unit				
1	Air Cooled Unitary type floor standing Packages Units of specified capacities, The indoor units shall be floor mounted within the AHU room located as shown in the drawings. The Indoor unit shall comprise of Fan, Cooling coil, Filter, Expansion device, and the Outdoor unit shall comprise of Hermetic scroll compressor(s). Air cooled condenser & Condenser fan. If multiple compressors are offered, they shall have independent refrigerant circuits(8.5 tr 7 nos). Also, compressors shall be cut-off automatically under part load conditions. The units shall have microprocessor control. The air-cooled condensers for all the units shall be installed at the terrace level as shown in the drawing. Scope shall include all supports for the indoor and outdoor units. The units shall be selected for Chennai Ambient conditions as specified. The units shall be factory assembled and only the refrigerant piping carried out at site. The noise level for the outdoor unit shall be less than 70 dBA. For indoor units less than 65 dbA .				
a.	Supply, installtion ,testing & commissioning of AHU for Office & Reception area with 23000 CFM capacity double skin (25 mm thick Puf with 45 Kg/m3 density) AHU units with 50mm SP, DIDW centrifugal forward curved up blast discharge fan speed 550 RPM (Max-800 RPM) Coil tube 1/2" dia, Aluminium fins 13 per inch, face volacity 475 FPM 4 Row - 3 coils/ AHU. Motor 15 HP /3phase/415 V speed 1420 RPM.Rubberised mounts, pre filters, Fan outlet velocity 11.72 m/s	2	Nos.		
b.	Supply installtion, testing & commissioning of air cooled Condensing unit conditioning unit complete with hermetic scroll compressor,air cooled condenser with fan & motor,Integral refrigerant piping, safety controls & cutouts,drier with shut off valves, control panel housing the starters for the compressors /condenser fan motors, control wiring with Capacity- 8.5 TR	14	Nos.		
c.	Supply & fixing of 7 Compressor controller to switch on and swtch off of condensing unit based on Thermostat and Time equiliser for 7 Compressor	2	Nos.		
d	Supply and fixing of suitable control valve and expansion valve , thermostatic sensors etc for the above.	14	Sets		

2	Supply, installation , testing & commissioning of Air Cooled Ductable Split type Ceiling Mounted Air Conditioner				
	units of specified capacities. The indoor units shall be				
	Ceiling mounted within the located area as				
	shown in the drawings. The Indoor unit shall comprise of				
	Fan, Cooling coil, Filter, Expansion device, and the Outdoor				
	unit shall comprise of Hermetic scroll compressor(s).				
	Air cooled condenser & Condenser fan. If multiple				
	compressors are offered, they shall have independent				
	refrigerant circuits. Also, compressors shall be cut-off				
	automatically under part load conditions. The units shall				
	have microprocessor control. The air-cooled condensers				
	for all the units shall be installed at the terrace level as				
	shown in the drawing. Scope shall include all supports for				
	the indoor and outdoor units. The units shall be selected for				
	Chennai Ambient conditions as specified. The units shall be				
	factory assembled and only the refrigerant piping carried				
	out at site. The noise level for the outdoor unit shall be less				
	than 70 dBA. For indoor units less than 65 dbA for unit				
a.	11TR Capacity units for ATM Monitoring Area (2 + 1 Stand by)	3	Nos.		
b.	5.5TR Capacity units for UPS room (3 + 1 Stand by)	4	Nos.		
c.	5.5TR Capacity Units for Card Management Area	1	Nos.		
3	Supply, installation , testing & commissioning of Hi-wall Split Units of different capacities installed				
	for individual cabins. The Indoor unit shall comprise of				
	Fan, Cooling coil, Filter and Expansion device and				
	shall be decorative high wall type . The Outdoor unit				
	shall comprise of Hermetic Compressors, Air cooled				
	condenser & Condenser fan.				
	Also, compressors shall be cut-off				
	automatically under part load conditions. Electronic				
	controls are preferred for the above. All Indoor Units				
	shall be provided with Cordless remote controllers. The				
	outdoor unit shall be installed in the floor above.				
	Scope shall include all supports for the indoor				
	and outdoor units. The units shall be supplied with				
	suitable stabiliser .				
a.	1 TR Split units for EPPX Room 24x7 (1W+1Stand by)	2	Nos.		

b.	1.5 TR Split units for AGM's & TCS (7+1) Cabins	8	Nos.		
c.	2 TR Split units for Card Room Stand by Operation	3	Nos.		
d.	Stabilizer with suitable capacity	13	Nos.		
e.	Fabricated Ms painted outdoor unit stand - to tacare of the Salty Air corrossion	7	Nos.		
	Sub Total				
	Vat @ 14.5%				
	Total -A				
4	Supply & installing of Refrigerant piping for the above packaged units,				
	Hard / Soft drawn copper pipes with brazed joints for the Liquid				
	& Hot Gas lines. The Both lines shall be insulated with cellular rubber form of 9/13 mm thick finished with polysield coating .(coating only at sun exposed terrace area).The refrigerant piping shall be adequately sized to take care of the length of piping				
a.	Liquid line for 120 TR (60 TR X 2 nos) units.	460	RMT		
b.	Gas line for 120 TR (60 TR X 2 nos) units.	460	RMT		
c.	Liquid line for 11 TR units.	80	RMT		
d.	Gas line for 11 TR units.	80	RMT		
e.	Liquid line for 5.5 TR units.	62	RMT		
f.	Gas line for 5.5 TR units.	62	RMT		
	The above measurement is linear measurement from the indoor to out door units.				
5	Refrigerant piping for the above split units, with Soft drawn copper pipes for the				
	Liquid & Suction lines. The suction lines shall be				
	insulated with cellular rubber foam insulation of 13-mm thick.				
	The refrigerant piping shall be adequately sized to take				
	care of the length of piping.				
a.	Liquid line for 1 TR / 1.5 TR	75	RMT		
b.	Insulated Suction line for 1TR / 1.50 TR unit	75	RMT		
c.	Liquid line for 2 TR	24	RMT		
d.	Insulated Suction line for 2 TR unit	24	RMT		
	The above measurement is linear measurement from the indoor to out door units.				

6	Supply & laying of Control wiring between the package units and the field mounted instruments with 1.5 sqmm x 6 core armoured copper cables.	750	Rmt		
7	Supply and Fixing of suitable sequential timer for UPS room AC Machines	1	No.		
8	Supply and Fixing of suitable sequential timer for ATM Monitoring AC Machines	1	No.		
9	Supply and Fixing of suitable sequential timer for EPPX room Split AC Machines	1	No.		
10	Supply & fixing of Motorised unit mouth dampers for air out lets (appropriate sized)with connectable to sequential timer for ATM monitoring units.	3	Nos.		
11	First charge of oil & Gas	310	Kgs		
12	<u>Air Distribution System :</u>				
	Sheet Metal Duct:				
	Supplying, fabricating, installing and testing of sheet metal ducts of following thicknesses including necessary supports flexible hangers with isolators, nut bolts, gasket splitter damper vanes etc complete as per specification in accordance with the approved shop drawings and required by the specifications (Rectangular Duct):				
a.	24 SWG	620	Sqm		
b.	22 SWG	130	Sqm		
c.	20 SWG	90	Sqm		
d.	18 SWG	95	Sqm		
13	Supply & fixing of Air grilles (Non-continous type) for air-conditioned areas fabricated out of Extruded Aluminium, powder coated sections, with color to match the interiors. All supply air grilles to have powder coated control dampers.				
a.	SAG With VCD RAG with out VCD continious type 4" deep	27	Sqm		
b.	SAG With VCD for cabins spot type 4" deep	0.6	Sqm		
c.	RAG Without VCD for cabins	0.8	Sqm		
d.	SAD size 450x450 mm with VCD	9	Nos.		
e.	RAD size 450x450 mm with out VCD	14	Nos.		

14	Supply & fixing of Thermal Insulation with closed cell Nitrile rubber with 9/13 mm thick carried with continuous sheet stuck on ducting with suitable adhesive. All joints will have a minimum of 15mm overlap, flanges shall be insulated separately.	640	Sqm		
15	Supply & fixing of Acoustic Insulation for the Initial portion of Supply air ducts with 25mm fibre glass of 24Kg/Cum density rigid board faced with RP tissue and finished with 26G perforated aluminium sheet.	300	Sqm		
16	Supply & fixing of Acoustic Insulation for the AHU room up to 10 feet height with 50mm fibre glass of 24Kg/Cum density finished with appropriate wooden or Al. 2X2 grid frame furnished with 26G perforated aluminium sheet.	112	Sqm		
17	Supply and fixing of Volume control Duct dampers fabricated out of 18 G GI sheet metal.	6	Sqm		
18	Supply & fixing of Volume control dampers for air outlets fabricated out of 18 G GI sheet metal to straightening balancing the air.	15	Sqm		
19	Supply & fixing of Double Canvas connection (Fire retardant) fitted on air outlet	10	Nos.		
20	Supply and fixing of Fire damper with fusible link at fan outlet AHUs, FCUs for Office, Work station, Reception, ATM monitoring area, card room, UPS room area	10	Nos.		
21	Supply & fixing of Fresh air intake with dampers filters, louvers, storm protection cowl arrangement with birds screen for all indoor locations	4	Nos.		
22	Supply & laying of Power cabling 4C X4Sq.mm Ar. Cable from indoor ele. Sub panel to each outdoor units with proper support & clamp at appropriate distance.	680	Rmt		
23	Supply & fixing of Interconnecting power cabling should be terminated in between indoor & outdoor from ele.sub panel (Sub panel ele scope) with 18 swg GI earthing along with suitable isolator 4 pole 32A MCB for each outdoor units in a weather proof enclosure near to the respective outdoor.	25	Nos.		
24	Supply and fixing of Underdeck insulation with expanded polystyrene material (Thermocole 50 mm TF grade) as per specification	525	Sqm		
25	Supply & fixing of Anti vibration rubber pads, bolts, nuts, supports etc	1	Lot		
S.No	Description of Works	Qty	Unit	Rate	Amount

26	Supply & fixing of Condensate drain waterline(drain water shall be let out nearest drain piont) 25/32 mm PVC (10 kg/sq cm) pipe with insulation	80	Rmt		
27	Provision of civil work like wall opening, making of good for duct & making of civil bed or pre casted RC blocks on terrace with suitable size for positioning of all ductable out door units.	1	Lot		
	Sub total				
	Add Tax @ 10.5%				
	Total -B				
	Grand Total -A & B				

(In words

REFURBISHMENT MODULAR FURNITURE WORK FOR INDIAN BANK 2nd FLOOR, CHENNAI.

S.No	Description	Qty	Rate	Amount
1	WORKSTATION			
	SYSTEM- 50MM FRAME AND TILE BASED			
	MAIN TABLE SIZE : 1500 X 1500 X 1200mmHt			
	25mm prelaminate Table Top with PLB gable end support.			
	First module Steel embossed Tile. Considered accessory rail.			
	Second module tile with two fabric, one marker and one soft pinup			
	One Three Drawer steel pedestal (2D+1F).			
	One Two Drawer Steel Pedestal (2F) with levellers			
	One metal Keyboard tray with mouse pad and one CPU holder.	140		
2	DGM CABIN TABLE			
	25mm prelaminate Table Top with PLB gable end support. 2100 x 750 x 702ht with side return table and back credenza(750 x 450 x 727ht)			
	With metal leg and PLB Modesty panel support and cable beam for wire entries. One Three Drawer steel pedestal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	2		
3	AGM CABIN TABLE			
	25mm prelaminate Table Top with PLB gable end support. 1800 x 750 x 702ht with side return table and back credenza(750 x 450 x 727ht)			
	With metal leg and PLB Modesty panel support and cable beam for wire entries One Three Drawer steel pedestal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	4		
4	TCS CABIN TABLE			
	25mm prelaminate Table Top with PLB gable end support. 1800 x 750 x 702ht with side return table and back credenza(750 x 450 x 727ht)			
	With metal leg and PLB Modesty panel support and cable beam for wire entries One Three Drawer steel pedestal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	1		
5	Manager CABIN with partition			
	SYSTEM- 50MM FRAME AND TILE BASED			
	25mm prelaminate Table Top 1500 x 750 x 702ht with side return table and back credenza(750 x 450 x 702ht)			
	With metal leg and Steel Modesty panel support and cable beam for wire entries. First module Steel embossed Tile			
	Second module tile with fabric tile, one marker and one magnetic cum pinup for one cabin. One Three Drawer steel pedestal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	14		
6	CARD MANAGEMENT ROOM LINEAR WORK STATION			
	SYSTEM- 50MM FRAME AND TILE BASED			
	MAIN TABLE SIZE : 1500 X 600 X 1200mmHT			
	25mm prelaminate Table Top with PLB gable end support.			

	First module Steel embossed Tile			
	Second module tile with two fabric,one marker and one magnetic cum pinup One Three Drawer steel pedastal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	12		
7	CARD MANAGEMENT ROOM CORNER TABLE			
	SYSTEM- 50MM FRAME AND TILE BASED			
	MAIN TABLE SIZE : 1500 X 600 X 1200mmHT			
	25mm prelaminated Table Top with PLB gable end support			
	First module Steel embossed Tile			
	Second module tile with two fabric,one marker and one magnetic cum pinup One Three Drawer steel pedastal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	1		
8	CARD Manager TABLE with partition			
	SYSTEM- 50MM FRAME AND TILE BASED			
	25mm prelaminated Table Top with PLB gable end support. 1500 x 750 x 702ht with side return table and back credenza(750 x 450 x 727ht)			
	With metal leg and Steel Modesty panel support and cable beam for wire entries. First module Steel embossed Tile			
	Second module tile with fabric tile,one marker and one magnetic cum pinup for one cabin. One Three Drawer steel pedastal (2D+1F).			
	One metal Keyboard tray with mouse pad and one CPU holder.	1		
9	SERVICE Tables - CONNECT 50			
	25mm prelaminated Table Top with PLB gable end support.	5		
	Table top size (1800 x 1500)/(1500 x 600)/(1500 x 450) (1350 x 600)			
10	ATM SERVER PARTITION			
	SYSTEM- 50MM FRAME AND TILE BASED			
	One Three Drawer steel pedastal (2D+1F).	1		
11	Discussion table - Ensemble			
	6 Seater Conference table with size 1800x1050			
	25mm Prelam Table Top with PVC straight edge binding with metal leg	1		
12	ENSEMBLE - CONFERENCE TABLE			
	PLB Tabletop size 3750 x 1200 x750 mm HT with 4 no of flipup boxes	2		
13	CONFERENCE ROOM STORAGE			
i	900 x 450 x 727mmHt	6		
i	750 x 450 x 727mmHt	1		
14	PRELAM CABINETS			
l	PRLM CAB 600X450X1200HT	28		

II	PRELAM CABINATE 750X450X1200HT	13		
III	PRLM CAB 900X450X1200HT	34		
IV	PRLM CAB 600X450X2100HT	8		
V	PRLM CAB 900X450X2100HT	15		
15	SLIDING CABINET			
i	1200 X 450 X 702mmHt	5		
	Sub TOTAL			
	(in words)			

**REFURBISHMENT ACCESS CONTROL WORK FOR INDIAN BANK, 2ND FLOOR,
CHENNAI**

S.no	Description	Qty.	Unit	Rate	Amount
1	Supply , installation, testing & commissioning of proximity card readers as per specification suitable for mounting on metal surface/metal frames or wooden frames wall or as required based on site conditions including all accessories.	5	No.		
2	Supply , installation, testing and commissioning of proximity cards as per specification	50	No.		
3	Supply , installation, testing and commissioning of Push Button for Exit	5	No.		
4	Supply , installation, testing and commissioning of Door Controller (Maximun 4 reader per controller) for Controlling the above card readers with LAN onboard, TCP/IP interface as per specification mentioned including all accessories. (Tenderer to mention quantity of controllers based on their system.).	2	Lot		
5	Supply, installation, testing and commissioning of electromagnet door holder (fail safe type) of 600 lb holding force for the following doors :				
6	Single Leaf Door	R/O	No.		
7	<i>Double Leaf Door</i>	5	No.		
8	Supply , installation, testing and commissioning of Door Contact.	5	No.		
9	Supply, installation, testing and commissioning of Panic Bars for exit door along with heavy duty magnetic contact, local scare alarm and output for indication on security system graphics located in control room. Panic bars shall be of either stainless steel or brass finish as per architect's decision.	5	No.		
10	Supply, installation, testing and commissioning of door open break glass switch.	5	Nos.		
11	Supply, installation, testing and commissioning of Software for Access Control System with intruder alarm system loaded on computer for access control system with Two client / user licenses.	1	No.		
12	Supply, installation, testing and commissioning of application Server with required configuration. (CCTV and Access Control)	1	No.		
13	Supply, laying , testing and commissioning of the following cables in 25mm PVC conduits with all accessories.				

S.no	Description	Qty.	Unit	Rate	Amount
14	16 Core x 0.75 Sq.mm shielded cable	R/O	Mtrs		
15	8 Core x 0.75 Sq.mm shielded cable	85	Mtrs		
16	4 Core x 0.75 Sq.mm shielded cable	175	Mtrs		
17	CAT 5E Cable.	125	Mtrs		
	Sub TOTAL				

(In words

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REFURBISHMENT CCTV WORK FOR INDIAN BANK, 2ND FLOOR, CHENNAI					
S.no	Description	Qty.	Unit	Rate	Amount
	CCTV SYSTEM EQUIPMENT (IP)				
	Supply, Installation & Commissioning of following CCTV System Component				
1	Indoor 1/3"color auto iris verifocal lense CCD Cameras (high resolution cameras) fitted enclosed in a discrete mirror dome complete with sockets as per specification.including all necessary power supply units along with standalone UPS with 15 min. Battery back.	24	Nos		
2	Supply, installation, testing and commissioning of 16 channel DVR with two video outputs & 21" totally flat colour LCD monitor as per Specification. Contractor shall size the DVR for real time 400 FPS / 4 CIF resolution 30 days of continous recording and submit data sheet of their storage calculation for both MPEG 4 and H.264 recording formats. The DVR with TCP / IP connectivity, DVD R/W & USB connectivity with all necessary softwarealong with standalone UPS with 15 min. Battery back.	2	Set		
3	Supply, installation, testing and commissioning of RG 6 Coaxial video cable with inner copper conductor, PVC sheathed, unarmoured	1000	RM		
4	Supply, laying , testing and commissioning of 2 Core x 1 Sq.mm shielded cable with all accessories.	1000	RM		
5	Supply , Installation , testing and commissioning of the 16 gauge 25 mm dia PVC FRST heavy duty Conduits with Accessories like Junction Saddle etc.	1000	RM		
	Sub TOTAL				
	(In words)				

REFURBISHMENT PLUMBING AND SANITARY WORK FOR INDIAN BANK, 2ND FLOOR, CHENNAI.

S.No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	SANITARY FIXTURES & FITTINGS				
1	Providing, fixing, testing and commissioning of white vitreous china floor mounting European water closet with C.P. bolts, nuts, C.I. chair (painted with two coats of enamel paint over a coat of primer) or other hanging arrangements, built-in exposed white vitreous china low volume compatible cistern with C.P. bolts, nuts, supporting arrangements, bakelite / poly propylene seat & cover with C.P. hinges & rubber buffers, complete with all accessories. Including cutting & making good the walls & floors wherever required. Make/Model: Hindware Crystal EWC Cat No:20024. All CP items to be of approved Jaquar.	each	8		
2	Providing vitreous china Indian type (Orissa pattern) water closet with PVC cistern	each	2		
3	Providing & fixing of white vitreous china below counter oval wash basin (Hindware Cat No. 10017) with CP brass waste assembly, CP cast brass bottle trap with extension piece (Jaquar Cat No. 769B), 450mm long CP copper connections pipes (Jaquar Cat No. 803B), wall flanges and rubber adapters for waste connection complete including CI/MS brackets duly painted, nuts, washers, cutting and making good the walls floors wherever required as per direction of Engineer-Incharge. All CP items to be of approved Jaquar.	each	10		
4	Providing & fixing white vitreous china URINAL with automatic flushing systems (Hindware Cat No. 60007) comprising of all plumbing, electronic and electrical items. CP brass flush pipe with CP brass elbow, CP brass spreader, CP wall flange, infrared photo cells, eyes electrically operated solenoid valve, step down transformer / equipment and any other item required to provide satisfactory functioning. Including necessary wall cutting / chasing and making good, as required with battery operated automatic urinal flushing systems for urinal flushing complete as mentioned above as per direction of Engineer-Incharge. All CP items to be of approved Jaquar.	each	3		
5	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with CI brackets and stainless steel plug 40 mm including painting of fitting and brackets, cutting and making good the walls wherever required:				
a	Stainless steel sink with drain board.	each	1		
	510 x 1040 mm bowl depth 250mm				
6	Providing, fixing, testing and commissioning of pillar cock (Push type) for all wash basins with wall flange (as required) and making good. Make/Model: Jaquar-Cat No- 031	each	10		

7	Providing & fixing 15mm C.P. wall mounted type long body sink cock with swinging Casted Spout , C.P. wall flanges. Make/Model: Jaquar-Cat No- FLR 5347	Each	1		
8	Providing,Fixing, testing and commissioning of 15 mm dia C.P. brass long body bib cock with C.P. wall flange of approved quality and making good as required.	each	2		
9	Providing, fixing, testing and commissioning of C.P. brass angle valve with C.P. wall flange, Nut and Washer etc. complete as required. Make/Model:Jaquar-continental- Cat no-053	each	26		
10	Providing, fixing, testing and commissioning of C.P Copper connection 450 mm long including nuts and washers and making connection to fixtures and fittings complete as required. Make/Model:Jaquar-Allied- Cat no-803	each	26		
11	Providing & fixing C.P. hand spray with lever control (health faucet Health faucet with two way bib cock) along with all accessories like flexible hose 1 m long connection with C.P. holder for hand spray ,flanges complete in all respects as per direction of Engineer-Incharge. Make/Model: for two way bib cock -Jaquar continental Cat No- 041; for Health faucet:Jaquar allied cat no-573)	each	8		
12	Providing & fixing C.P. brass Towel ring. Make/Model- JAQUAR Continental- 1121	each	8		
13	Providing & fixing push type SS liquid soap dispenser as per direction of Engineer-Incharge. Make/Model:Jaquar Cat No- CHR-1137N	each	8		
14	Providing and fixing stainless steel twin coat hook fixed to wooden cleats with CP brass screws as per direction of Engineer in Charge. Make/Model: Jaquar-Cat No- 1161	each	10		
15	Providing & fixing fully automatic "NO TOUCH" ABS body wall mounted hand dryer with single blower ,time delay,including providing necessary brackets,cable from blower to plug,plug top key ,lock,etc.,suitable to operate on 220 volts, single phase 50 hz, A.C. power supply. (Euronics Cat No. EH 03 or approved equivalent)	each	6		
Total					
B	<u>INTERNAL WATER SUPPLY</u>				
1	Providing and fixing CPVC (Chlorinated Poly Vinyl Chloride) water supply pipes with pipe as per CTS SDR 11 (operating pressure - 7 Bar @ 82 Deg C and 28 Bar @ 23 Deg C)for pipes from 1/2 Inch to 2 Inch. Schedule 40 Pipe to be used from 2-1/2 Inch to 6 Inch. Pipes shall be joined using solvent welded CPVC fittings i.e. Tees, Elbows, Couplers, Unions, Reducers, brushings etc. including transition fittings (connection between CPVC & metal pipe/GI) i.e. CTS fitting conforming to ASTM D-2846,SCH-40 fittings conforming to ASTM-F438, SCH-80 fittings conforming to ASTM- F439, CPVC solvent cement conforming to ASTM F-493. Cost shall be inclusive of				

	(i) Fixing/supporting the pipes (& fittings) at wall/ceiling level supported by galvanized clamps, hangers etc, as per specification. Exposed pipes to be painted of legends with direction arrow. All termination points for installation of faucets shall have brass termination fittings. Installation shall be to as per Technical Manual of manufacturer of pipes & fittings.wherever the pipes are crossing the fire rated walls / beams and sealing the opening with Fire rated compound as per direction of project manager.				
	(ii)Making maximum of 7.5 x 7.5 cm chasing in wall and floors for the pipe, making good the same by using 1:1 cement mortar over the wire mesh and providing protection to embedded pipes and fittings (in wall chase) by wrapping two layers of 400 micron polythene sheet including proper overlaps on joints complete as required .All termination points for installation of faucets shall have brass termination fittings. Installation shall be to as per Technical Manual of manufacturer of pipes & fittings.				
i	in side toilet				
a	15mm nominal bore(1/2")	Metre	20		
b	20mm nominal bore(3/4")	Metre	90		
c	25 mm nominal bore(1")	Metre	20		
d	32 mm nominal bore (1 1/4")	Metre	5		
2	Providing & fixing full way lever operated forged brass ball valve of brass body with forged brass hard chromeplated steel ball of working pressure not less than 10Kg / sqcm with threaded / flanged joints complete with nuts, bolts, gaskets, washers etc.				
a	20 mm nominal bore	each	2		
b	25 mm nominal bore	each	3		
c	32 mm nominal bore	each	1		
	Total				
C	INTERNAL DRAINAGE				
1	Providing, jointing and fixing approved make UPVC pipes class III 6 Kg/cm2 with solvent cement joints confirming to IS 4985 comprising of UPVC fittings (moulded as well as fabricated) like bends, tees, Y-tees, crosses, boss connections, access pieces, saddle pieces, cleanouts, adaptors for connections to other materials, plugs, reducers, cowls, offsets and other specials) Jointing shall be done with pushfit rubber ring jointing technique in general. Solvent cement joints may be provided for fittings and specials which are not manufactured with pushfit rubber joints. Pipes to be laid/ fixed in sunken floors. The pipes laid in sunken floor shall be encased with 75 mm thick cement concrete (1:2:4) all around. The installation shall be complete in all respects including cutting chases / holes in walls, slabs and making good the same as per specifications. Prices shall be inclusive of painting the exposed pipe with two coats of synthetic enamel paint of approved shade over a coat of primer.				

	Location:In sunken ,under ceiling and transfer levels				
a	40 mm outer dia	Metre	5		
b	50 mm outer dia	Metre	23		
c	63 mm outer dia	Metre	5		
d	75 mm outer dia	Metre	30		
e	110 mm outer dia	Metre	30		
3	Providing and fixing of approved make uPVC multiinlet floor trap with110mm dia inlet & 75mm dia outlet and it is fixed in Sunken slab including properly set in the filling and make good same as required.				
a	110 mm inlet and 75mm outlet.	each	17		
4	Providing and fixing in position of Custom Made Fabricated Floor trap of the following sizes from UPVC 10kg/cm2 pipe by maintaing 50mm water seal at Urinal for suitable to 250mm Sunken slab including providing necessary support and as per Specification .				
a	110 mm inlet and 110mm outlet.	each	1		
5	Providing and fixing Heavy class SS grating with Cockroach proof SS strainer of approved design including setting in floor with cement motor to match with floor finish as per architect requirement suitable for above mentioned Floo traps in item no: 3&4)				
a	Size 125 mm x 125 mm(OD)	each	18		
	TOTAL				
	TOTAL (A+B+C)				

(In words)

REFURBISHMENT PUBLIC ADDRESS SYSTEM WORK FOR INDIAN BANK, 2ND FLOOR, CHENNAI

S.no	Description	Unit	Qty	Rate	Amount
	Design, Supply, Installation, testing and Commissioning of Public address system generally comprising but not limited to the following:				
1	Supply, installation, testing and commissioning of 240 Watts Amplifier comprising 1 Nos. Microphone outlets and 1 Nos. earphone outlets	Set	1		
2	Supply, installation, testing and Commissioning of 6 zone control Panel	Set	1		
3	Supply, installation, testing and commissioning of suitably sized Rack Assembly, pre-wired to locate amplifier, control console, tuner, cassette deck, and DVD player as per specifications.	Set	1		
4	Supply, installation, testing and commissioning of 6 zone call station with goose neck microphone mounted on solid base	NO	3		
5	Supply, installation, testing and Commissioning of local volume Control stations	NO.	7		
6	Supply, installation, testing and Commissioning of CD player as per specifications	NO.	1		
7	Supply, installation, testing and Commissioning of ceiling mounted ring type speakers 230 mm dia of approved make – each 6 W RMS, 9 W Max.	NO.	27		
8	Wiring from speaker points to Rack using twin twisted 32/0.200 tinned copper music wires in 25 mm dia 2 mm thick ISI marked FRLS heavy duty PVC conduits with necessary accessories like junction boxes, distribution frames etc.	Rmts	350		
	Sub TOTAL				
	(In words)				

REFURBISHMENT EPABX WORK FOR INDIAN BANK, 2ND FLOOR, CHENNAI					
S.No	Description	QTY	units	Rate	Amount
Commercial Proposal for EPABX					
1	Configuration:	1	Set		
	PRI	2	Ports		
	Analog Co	32	Ports		
	Digital Extension	16	Ports		
	Analog Extension	198	Ports		
	Auto Attendant-Welcome Greeting for 16 incoming calls				
2	12 Key Digital Phone	16	Nos		
3	Rack with all accessories to complete installation	1	Set		
4	Installation Charges	1	LS		
5	Single line Telephone for office users	182	Nos		
Total A					
Supply of Telephone Cable and Accessories					
1	2Pair Voice cable 0.5MM Thick Copper Conductor	9585	Mtrs		
2	1XCat5e Information Outlet with Face Palte	163	Nos		
3	2XCat5e Information Outlet with Face Palte	25	Nos		
MDF					
4	250X250 Pair Krone MDF	1	Nos		
5	0.5MM Thick Jumper Wire (500mtr)	1	Mtrs		
Voice Resource					
6	50 Pair outdoor cable from basement to 2nd floor for BSNL	225	Mtrs		
7	50Pair Krone MDF	2	Nos		
Cabling Supply Total B					
Services					

S.No	Description	QTY	units	Rate	Amount
8	Laying of 2Pair cable with Required PVC Conduit & Junction Boxes	9585	Mtrs		
9	Identifying the Cable ends with ferrules & Labeling	426	Nos		
10	Termination of Information Outlet	213	Nos		
11	Testing & Documentation Charges	213	Nos		
12	Fixing & Termination of 250X250Pair Krone MDF	1	Nos		
13	Laying of 50Pair Voice Resource Cable	225	Mtrs		
14	Fixing & Termination of 50Pair Krone MDF	2	Nos		
15	Project Co-Ordination & Documentation Charges	1	Lsum		
	Services Total C				
	Grand Total A + B +C				

(In words)