

**TENDER DOCUMENT FOR**  
**Interior Furnishing, Electrical Installation,**  
**Air Conditioning works for Indian Bank**  
**Head Office Main Building 1st Floor,**  
**at Rajaji Salai Chennai.**

**Through electronic mode only**

**PART-B**  
**PRICE BID**



इंडियन बैंक



Indian Bank

इलाहाबाद

ALLAHABAD





**INDIAN BANK**

**PROPOSED COMPOSITE INTERIOR FURNISHING, ELECTRICAL  
INSTALLATION, AIR CONDITIONING WORKS FOR INDIAN BANK, HEAD  
OFFICE, MAIN BUILDING FIRST FLOOR, AT RAJAJI SALAI CHENNAI**

**GRAND SUMMARY**

S.NO	DESCRIPTIONS	ESTIMATED VALUES
SCHEDULE I	CIVIL WORKS	
SCHEDULE II	INTERIOR FURNISHING WORKS	
SCHEDULE III	ELECTRICAL WORKS	
SCHEDULE IV	AIR CONDITIONING WORKS	
	<b>TOTAL</b>	

NOTE: The above costing exclusive of GST



**SCHEDULE OF QUANTITIES FOR CIVIL WORKS**

S. No	Description	Qty	Unit	Rate	Amount
<b>I</b>	<b>DEMOLITION WORKS</b>				
1	Demolishing of existing brick wall from first floor at all levels the rate including removing of plastering, scaffolding, labour etc .. The rate inclusive of Carrying debris from from first floor to ground floor.	7	CUMT		
2	Demolishing of existing 115mm thick brick wall from first floor at all levels the rate including removing of plastering etc..The rate inclusive of Carrying debris from first floor to ground floor.	50	SQMT		
3	Breaking and removing of existing toilet wall tile and flooring without affecting plumbing pipe lines including removing of base mortar etc..The rate inclusive of Carrying debris from first floor to ground floor.	86	SQMT		
4	Carry out all type rubbish from site (bank premises to outside the city limit) the rate inclusive of transport , loading and un loading rubbish and others each load should be minimum 100 cft .	5	Load		
5	Removing of existing toilet fittings like EWC,IWC,washbasn and urinals etc...removing and Carrying away from site to outside the bank premises .	15	Nos		
<b>II</b>	<b>PORPOSED CIVIL WORKS</b>				
1	<b>PLAIN CEMENT CONCRETE:</b>	1	CUMT		
	Providing and laying PCC 1:3:6 Footing & flooring base course wherever required. Using below 25mm IS size HBG metal including cost and conveyance of all materials to site. Shuttering / Pouring/Vibrating include labour and Machinery etc. complete				
2	<b>SCREED CONCRETE:</b>	20	SQMT		



	Providing and laying of 50mm thick Screed concrete conforming to IS 456 with coarse manufacture sand and graded hard stone aggregate 1:2:4 (1 part cement, 2 part M. sand, 4 parts of aggregate by volume) including cost and conveyance of all materials & labour to site.				
3	<b>REINFORCEMENT CEMENT CONCRETE:</b>	1	CUMT		
	Supplying and casting RCC (1:11/2:3) all type works using 20mm and down graded HBG stone jelly including necessary reinforcement, shuttering,vibrating, curing etc.complete for all depths and heights including supplying and fixing cover blocks supply of all materials and labour complete.				
4	<b>230MM BRICK WORK</b>	3	CUMT		
	Brick work shall confirm to IS2212 or later and include all scaffolding form work, curing, cleaning and clearing of all mortar and brick debris away etc. complete Providing and laying brick masonry work using good quality of approved chamber burnt bricks(22 X11 X7.5CM) in cement mortar 1:5 of 0'9" or more thickness as per specification including scaffolding, stagings, curing, finishing the joints racking out joints, clearing the mortar and brick debris away etc. complete in				
5	<b>115 MM BRICK WORK:</b>	20	SQMT		
	Brick work shall confirm to IS2212 or later and include all scaffolding form work, curing, cleaning and clearing of all mortar and brick debris away etc. complete. Providing and laying brick masonry work using good quality of approved chamber burnt bricks (22 X11 X7.5CM) required of 10mm thickness of cement mortar 1:4 of 0'4.5" thickness as per specification including scaffolding, stagings, curing, finishing the joints racking out joints, clearing the mortar and brick debris away etc. complete in for all counter Support walls. 8mm rod to be provided with concrete to be done at every four layer of brick work				



6	<b>PLASTERING WORKS:</b>	91	SQMT		
	Plastering with cement mortar 1:5 with manufacture sand 12 to 15mm thick to brick wall surfaces and concrete columns including hacking to concrete surfaces, brushing cleaning necessary, scaffolding, curing the surface, shall be smoothly finished as per standard specifications including supply of all materials and labour etc. complete. The rate shall include providing and fixing of 150mm wide chicken wire mesh of 26 gauge at the junction of different construction materials.				
7	<b>WATER PROOFING:</b>	25	SQM		
	Providing & laying water proofing treatment, by applying cement slurry mixed with water proofing cement compound consisting of applying (a) first layer of slurry of cement @ 0.488 kg/ sq.m mixed with water proofing cement compound @ 0.253 kg/ Sq.m. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @0.242 kg/ Sq.m mixed with water proofing cement compound @ 0.126 kg/ Sq.m. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate include, preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry etc. complete.				
8	<b>TILE FLOORING:</b>	700	SQMT		
	Supply and Laying of approved make vitrified tiles mixed colour pattern size of 600mmX600mm on an existing concrete flooring bed, usingusing in adhesive as per manufacture standared and pointed with plaster of paris or white cement and curing etc. complete(The rate inclusive of tile skirting in sft and Laying & removing of POP and removing of existing vinyl flooring wherever required) tile Basic price 55/- sft.				
9	<b>TOILET FLOORING:</b>				



	Supply and Laying in floors Matt finish ceramic tiles of 7.2mm thickness without warpage, of approved make and color pattern laid on 25mm thick cement mortar 1:4, with manufacture sand including grouting the joints with white cement and matching pigment POP etc. Basic price 50 /- sft				
	Floor -Matt finish	8	SQMT		
	Wall -Glossy finish	35	SQMT		
10	<b>GRANITE WORKS:</b>	5	SQMT		
	Supply and Laying 20 mm thick Granite flooring for general floor and entrance steps on an existing floor, using in cement mortar 1:4 with manufacture sand, and pointed with plaster of paris or white cement and curing, polishing, nosing, Skirting etc., complete. Basic price 200 /- sft				
11	<b>ENAMEL PAINT:</b>	150	SQMT		
	Providing and applying two coats of approved colour enamel paint finish with necessary primer putty including rubbing with sand paper, scaffolding, etc. complete as per manufacturers specification and as directed and instructed by Architect /Engineer- in				
12	<b>INTERNAL WALL PAINT:</b>	450	SQMT		
	Scraping and cleaning the existing surface and Providing and applying two coats of approved colour Emulsion paint finish with necessary primer putty and primer to all internal wall surfaces including scraping the walls, scaffolding etc. complete as per manufacturers specification and as directed and instructed by Architect/ Engineer.				

13	<b>WINDOW:</b>	10	SQMT		
	Providing and fixing aluminium sliding anodized window. The Frame should be 2" x 1 1/2" wide sections with tracks on all the sides & drain tray system for the bottom frame. The shutters should be of suitable 2" x 1" sections for top & bottom member & 1 5/8" x 1" for vertical with 6 mm. Thk. approved make clear float glass and beading shall be used. The tracks will be fixed on 2" x 1" aluminium BOX frame. - (Heavy Duty 2" thick frames(14 gauge) - approved make)Note : rate shall be inclusive of necessary fittings, locks, handles, best quality rollers, necessary hardware items,side sealant filling etc.				
14	<b>METAL DOOR:</b>	5.00	SQMT		
	Providing and fixing of single leaf door, with frame, door size Aprox of 1000mm x2100mm having door thickness of 50mm, finished with galvanized steel both the sides with interlocking arrangement for the stiles, door to be fully flush and flat surfaces insulated with infill material and factory prepped to take all hardware, The door must have steel bearing type hinges, with self closing and self latching with pproved shade painting complete arrangements.				
15	<b>WINDOW / VENTILATORS REPAIRING:</b>				
	a)Check and repairing existing aluminum window & ventilators to change necessary fittings, frames gasket seal and provide new locks, handles, best quality rollers, necessary hardware items,side sealant filling complete labour and scaffolding etc.	50.00	SQMT		
	b)Supplying & fixing window glass (4mm to 8mm thick) for shutters & fixed glasses, louvers changing of gaskets etc.The rate inclusive of removing and disposal of existing broken glasses from bank premises ,complete labour and scaffolding etc.	35.00	SQMT		



<p>c) Providing and Fixing of Glass films for fixing on existing window and aluminium partition glass for reduces the amount of heat and radiation caused by the sun's rays. The rate inclusive of scrapping and removing of old films, cleaning, scaffolding, all labours complete.                  Black sun Film (approved brands: Garware, AI and 3M)                  Thickness -1 Mil                  Visible Light Transmittance 70%</p>	65.00	SQMT		
<p>16 <b>MARBLE POLISHING:</b></p>	70.00	SQMT		
<p>Polishing only of old marble or terrazo or mosaic work with oxalic acid powder using 33 gms/ sq.m. by machine.(Floor including dado) in any floor complete in all respect including the rubbing and joint pointing after polish complete fine cleaning .</p>				



<b>PLUMBING WORKS</b>				
	<b>SANITARYWARE AND CP FITTINGS</b>			
1	<b>EWC:</b>			
	Supplying,installing,testing and commissioning of Parryware make cascade NXT range white colour wall mounted European Water closet with slim line dual flush cistern-"P" trap, Ultra solid seat cover with rubber buffers and flap including following accessories : brass screws with washer, pan connector, rag bolt/CI chair bracket with GI bolt and nuts etc.complete. Works including cutting and making good the walls /floor wherever required, including cost and conveyance of all materials to the site, all labour charges, all taxes etc., complete finished item of work and as directed by the Site Engineer/Project In-Charge. The side gap between ewc mouth and pan connector to be filled with silicon sealant.			
	EWC-Wall mounted closet with"P"trap,Make-Parryware, Range-Cascade NXT,Model no-C0207			
	Seat cover-Range-ultra solid seat cover, model no-C8140			
	Slim line economy dual flush pvc cistern model no: C8109			
	Pan Connector,Cp/Pvc connection tube			
	Wallvit pan fittings-C8015			
	15mm cp brass angular stop cock with, connecting tube & wall flange-Jaquar - Continental-model no-CON-053			
	Sumo Chair Brackets-Parryware-C8166			
	Providing and fixing of cascade NXT White color EWC Wallvit pan set	2	set	
2	<b>WASH BASIN:</b>			



	Supplying, Storing, Leading, Installing, Testing and commissioning of White Color Small Rectangular Wash basin. Works including following accessories; 32mm dia CP brass waste coupling, 32mm dia CP brass bottle trap with extension pipe, 15mm dia CP brass Angle valve, CP brass pillar cock, CP connections tupe, CP extention nipple, CP wall flange, Fisher bolt, and necessary all hardware materials like brass screws, washer etc. complete. Works including necessary cutting and making finishing the wall and floors wherever required etc. complete.				
	Small Rectangular Wash basin -Parryware-Indus range-Size-500x400,model no:0471/72				
	15mm CP Brass Pillar Cock with long neck aerator-Jaquar-Continental-model no:CON-021				
	CP waste coupling - Jaquar - Allied-Model no:705/709cp				
	CP bottle trap - Jaquar - Allied-Model no:769cp				
	15mm cp brass angular stop cock with wall flange-Jaquar - Continental-model no-CON-053				
	Cp connection tube,Rag bolt/bracket for basin				
	Providing and fixing of White color Rectangular wash basin set	2	Set		
3	<b>TAP:</b>				
	CP Short body bib tap-Jaquar-Continental range-model no:037	5	Each		
4	Supplying and fixing 15mm CP short body bib tap with flange for toilet areas etc. complete.Jaquar-continental- <b>model no:107-CP</b>	2	Each		
5	Supplying and fixing of CP brass Two way bib cock with Health Faucet and 1 m flexible tube with wall hook,screws etc.complete. <b>Jaquar-Allied-model no:573cp</b> / Two way bib cock-Jaquar- <b>Florentine-model no:5041</b>	2	Each		



6	<b>TOWEL RING:</b>				
	Supplying and fixing cp Towel ring- fixing with necessary screws etc., complete Jaquar-Continental- <b>model no:1121BN</b>	3	Each		
7	Supplying and fixing exposed type Toilet paper holder fixing with necessary screws etc., complete Jaquar-continental- <b>model no:1151-cp</b>	2	Each		
8	Supplying and fixing <b>Liquid soap dispenser including 500ml liquid soap (Kimberly clark make)</b> for wash basin fixing with necessary screws etc., complete Liquid soap dispenser-02004-white color	2	Each		
9	Supplying and fixing of approved make 5mm thick <b>mirror-600 x 450 size for wash basins</b> - with Teak wood frame and water proofed plywood backing, including polishing etc. complete	4	Each		
10	Supply and fixing wooden coat stand with a Number of Hooks 4 and the wood should be finished with approved colour polishing. Size of stand Solid Wood W x H x D: 100 mm x 900 mm x 450 mm.	1	Each		
11	Supplying, installing, testing and commissioning of Prince make Internal / External water supply pipe with CPVC pipes sdr 11 and CPVC Fittings as per the following specifications.				
	3/4"dia (ID)/20mm-SDR-11	70	RM		
12	Supplying, fixing and testing of RB make ball valve as per the following specification.				
	<b>WATER SUPPLY:</b>				
	25mm dia	1	Each		
1	Supplying,fixing and testing of <b>UPVC - SCH-40</b> of approved make with same pasted type specials such as tee,elbow,union,nipple etc.,for <b>Domestic, flushing water supply and Drinking water supply pipes running in terrace floor</b> , works including cutting and making the joints by pasting,chasing in the wall, mounting on brackets,with proper pipe supports etc complete and testing to withstand				



	the hydraulic pressure etc.complete,M.S Brackets rates not included.				
1.1	1"dia (ID)	30	RM		
1.2	1 1/4"dia (ID)	10	RM		
1.3	1 1/2"dia (ID)	20	RM		
1.4	2"dia (ID)	20	RM		
5	Supplying,fixing of <b>RB/VB/TBS</b> make Brass ' <b>Y</b> ' <b>strainer model no(RB)-110000</b> , on delivery line etc., complete				
	50mm dia	2	Each		
<b>INTERNAL DRAINAGE</b>					
1	Supplying, fixing and testing of Prince make PVC pipes and fittings for soil and waste pipe works in toilets area,etc. As per the following specification IS 4985 - 2000.				
2	50mm dia	25	RM		
3	Fabricating, supplying, and fixing of prince make 4mm thickness uPVC Floor traps, made out of 110mm dia PVC Pipe with single or multiple inlets of size 40mm to 75mm dia.(boss tee), as per the following specification.	4	Each		
4	Supplying, fixing and testing of Prince make 6kg pvc pipe for soil, waste water pipe works as per the following specification.				
	110mm dia - 450 to 1000 depth	10	RM		



<b>EXTERNAL DRAINAGE</b>					
	Supplying, laying and testing <b>SWR PVC- B Class pipe confirming to IS 13592-1992, for underground drainage and sewerage systems - Confirming to IS 15328:2003</b> - pipes in trenches to required gradients and provide sand cushion for pipes to the full width of trench above and below the pipe to required minimum thickness etc., complete. rates including excavation in all sorts of soils for laying pipes, forming bottom surface to required level, refilling selected excavated earth around the pipe of 150mm thick, watering, consolidating and disposing off the surplus earth with in the site or as directed by the site engineer with a lead of 300M etc., Works included pumping out water from trenches with shoring wherever necessary.				
1	160mm dia	20	RM		
	Construction of <b>inspection chamber</b> with best quality bricks with 230mm wall thickness up to 1.5 M depth, and 345mm wall thickness for depth deeper than 1.5 M in CM1:4 over a bed of 150mm thick PCC 1:4:8 for 1.0M depth, 200mm thick for depth 1.0M to 2.0M and 300mm thick for depth more than 2.0M , wall plastered smooth in CM1:3 inside, and outside with rough plastering, including 600x600 SFRC cover slab and frame-100kg, necessary excavation and refilling in any type of soil, including benching and channelling in PCC1:3:6. Supplying and fixing provide insulated CI stpes at 300mm interval for depth more than 0.8M				
2	600x600 depth upto 1000	2	Each		
	Construction of <b>gully chamber</b> with pvc gully with CI grating set in 75mm thick PCC1:4;8bed, in 115mm thick masonry chamber in CM 1:4, internal and external plastering 12mm thick in CM1:6, supply and fixing 300x300 SFRC cover slab and frame, including excavating, refilling etc., complete				
3	300x300	2	Each		

4	Providing <b>pcc encasing</b> for internal pipes running in ground floor with laying cement concrete 1:3:6 mix using 6mm jelly casing all round the pipes etc., complete				
5	160mm dia	2	M3		
	<b>Vertical Pipe</b>				
6	Supplying, fixing and testing <b>SWR PVC- B Class pipe confirming to IS 13592-1992</b> , for soil & waste pipe works in toilets from ewc, iwc, urinal, wash basin,& hand wash, floor trap etc., jointing with solvent cement, including of all available and fabricated fittings, concealing in wall, suspended in ceiling, stacked in shaft, laid in ground( from shaft to Inspection chamber and Gully chamber) ,vertical rain water etc., Work includes chasing in wall, making required size holes in beams, slabs, brick walls etc., and re do same with water proofing components to the entire satisfaction of site engineer.etc complete.,				
a	75mm dia	10	RM		
b	110mm dia	10	RM		
<b>Total</b>					
	<b>REMOVING AND BUYBACK:</b>	-1	Lot		
	Removing and buyback for existing alu/wooden partition,wall paneling /false ceiling with wooden / metal frame work /Electrical wiring /Panel boards & DB's/ Light fittings /AC with stabilizer/ Window AC/Existing ac duct etc ... as per site condition after approving by the bank and architect. <b>List of Buyback materials Qty's are Aproximate only contractor must visit the site before quating the cost:</b> false ceiling with wooden frame - 7750 sft Electrical & fire alarm wiring,cables,Db's - as per site condition CFL Light fittings - 4feet 2 nos set - 58 set No LED lights buy back it should be handover to bank. Window AC's - 1 Nos Split Ac - 1.5 TR 1 no along with ODU & stabilizer.				





Full height & low ht partitions along with door & glass partition- 2800 sft Storages - 200 sft AC Duct - Complete as per site condition <b>Note: Rate shall be inclusive of GST @ 5%</b>				
Grand Total				

**Note: All amounts are exclusive of GST**





**SCHEDULE OF QUANTITIES FOR INTERIOR WORKS**

S. No	Description	Qty	Unit	Rate	Amount
	<b>SCHEDULE - I</b>				
1	<b>Custom Made Full Height Solid Partition:</b>	161	SQMT		
	Supply and set in position of custom made double skin full height partitions as per shape and size shown in the drawing.				
	<b>Frame Work Detail:</b> Aluminium Box section of 2mm thickness of 50 X 50mm, vertically at about 60cm centers varied along columns wall ends, junctions of walls, as necessary. Horizontally of the same size of frames at floor level, 750 mm, 1500 mm, 2100 mm, and roof level. 50 X 25 mm at 60cm centres				
	<b>Lining Work:</b> 8mm thick calcium silicate Board of approved make on both sides of framework from floor level to 6" above false ceiling level, Jointing and finishing should be flush look which includes filling and finishing with compatible filler compound / Silicon Acrylic based putty and self adhesive fiber glass mesh and applying two coats of approved colour Emulsion paint finish with necessary primer putty and primer including provision of electrical sockets, scaffolding etc.				
	Measurement for the partition area shall be considered from floor level to false ceiling level only. Glass area will be measured and paid separately after deducting from the solid partition measurement.				
1.a)	<b>The same as above specification S.No 1</b> Supply and fixing 8mm toughened glass on the partition with necessary size beading ,nails, screws & sealant etc The beading finished with Duco paint the rate including supply and fixing of etching films as approved.	7	SQMT		
1.b)	<b>The same as above specification S.No 1</b> Including of providing of 50mm thick resin bonded mineral wool of density 50kg/m <sup>3</sup> (glasswool/ rockwool) insulation bonded with fibercloth on both sides with 0.95 NRC, lab tested as per ASTM/ ISO standards fixed inside the complete partition	55	SQMT		

<b>2</b>	<b>FIXED GLASS - Patch Fitting</b>	30	SQMT		
	<p>Supply and Fixing of Slim Glass partition of 10mm Toughened Glass using Dormakaba Alexa System-45 Frames to a height of maximum 3m or as per drawing. The Fixed glass to be fixed using Dormakaba Alexa BP45 Profiles at Top &amp; Bottom &amp; Alexa SP45 at sides. The profile size to be 45x25MM to be fixed on to the floor/wall/ ceiling as per the architect design. Dormakaba Alexa H Junction profile to be used at all Glass to Glass vertical joints, 90 Deg L Junction Profiles and T Junction profiles necessary as per design. In case of Glass overall panel Alexa MP45 &amp; BP45 Overpanel Profile to be used. In case of Open glass edges EP45 End Profile to be used. The Alexa profiles shall be suitable for Glass thickness of 10mm. The Profile shall be matt natural anodized, the Profile Manufacturer to supply all the necessary clips, seals and fixing accessories for the system. All Profiles to be with 2 mm Gauge thickness Excluding 20 Micron of Anodizing. Approved Manufacturer: Profiles/Frames: Dormakaba, Glass : Saint Gobain.</p>				
<b>3</b>	<b>GLASS DOOR - Patch Fitting</b>	19	SQMT		
	<p>Supply &amp; Fixing of Glass Door (Single Leaf) of 10mm toughened glass with Dormakaba Alexa System-45 frames all around the door. Alexa DP45 Door Profile frame of size 45X50mm with seals with Dormakaba Junior Office Hinges (3nos) &amp; Studio Gala Locks (1no) in aluminium silver (EV1) finish and Dormakaba TS 89 Slide Channel Door closer with (as per EN 1154) and saddle plate for fixing on the Glass door and necessary seals to be provided all around the door frames. In case of Glass over panel Alexa OHP-DP45 Over Panel Door profile to be used. The Alexa profiles shall be suitable for Glass thickness of 10mm. The Profile shall be matt natural anodized, the Profile Manufacturer to supply all the necessary clips, seals and fixing accessories for the system. All Profiles to be with 2 mm Gauge thickness Excluding 20 Micron of Anodizing. Approved Manufacturer: Profiles/Frames: Dormakaba, Glass : Saint Giobain</p>				

<b>4</b>	<b>SOLID DOORS:</b>	17	SQMT		
	Supply and fixing II class T.W. frame of size 75 X 50 mm as per the shape and size given in the drawing. Providing and fixing of flush door for the shape and size as shown in the drawing. 35 mm thick (finished) flush shutters in single leaf with external lipping, phenol formaldehyde bonding and finished with 1mm thick laminate of approved color and shade on both sides with necessary grooves as per detail in the drawing the frame to be finished with approved color duco paint finish . DORMA Make or equivalent make hardware fittings like locking arrangements, door closers, hinges, tower bolts , etc.,.				
<b>5</b>	<b>FALSE CEILING:</b>				
	NOTE: The false ceiling area will be measured in flat area only.				
<b>a</b>	<b>Gypsum Board False Ceiling</b>	325	SQMT		
	Providing and fixing of M/F suspended false ceiling as the detail given in the drawings. With G.I frame work and 12.5 mm tapered gypsum board panels to form grids of 45.7 X 122 cm as per manufactures specification including provision for stepped shaped ceiling for lighting trough comprising				
	Frame work of intermediate channels (M.F.T) at 122 cm centers along one direction M/F ceiling section MF5 at 45.7 cm center along other direction. Perimeter channels (MF 6A) along walls around perimeter side of the ceiling. The intermediate channels suspended from ceiling, through sharp hangers 25 X 0.5 mm (MF 8) at 122 cm centers connected to soffit cleats p534 (27 X 37 X 25 X 1.6mm) the cleats connected to ceiling through metal expansion rawl plugs 1/2" dia and 17/16" long with additional perimeter channels (MF 6A) for light fittings, Air conditioners Ducts, vertical drops, offset etc. 12.5mm thick gyp board with tapered edges fixed to underside of suspended grid with 25 mm screws to from grids with 2 coats of plastic emulsion paint of approved color over a putty and primer etc, complete.				
<b>6</b>	<b>False Ceiling (Grid System).</b>	290	SQMT		
	Providing and fixing in true horizontal level false ceiling Grid of 15 mm of approved make, of mineral board acoustical ceiling panels TEGULAR type with black silhouette grid using hot dipped galvanized steel section exposed surface chemically cleaned capping prefinished in baked polyester paint wall angle of size 3000 x 19 x 19mm used in the periphery of the ceiling fixed to the wall partition RC column band walls with the help of screws at 600mm C/C.				

	Main runner of size 3000 x 15 x 32 mm suspended at a 1200mm C/C. by using 2mm / 3mm dia GI wire hanger securely fixed to the structural soffit of RC slab by using 6mm anchor fastener at every 1200mm, (max) and 1200mm long cross tee of size 15 x 32 mm to be interlocked between in main runner at 600mm C/C (max) to form a grid of 600 x 600mm.				
	600mm long cross tee of size 15 x 32 mm fixed in between 1200 mm long cross tee for forming a grid of 600 x 600 mm. Finally laying 15 mm THICK PRIMA FINE FISSURED MICROLOOK EDGE. Fire rating of 60 minutes as per BS 476/23 of 1987, Noise reduction co-efficient (NRC) of 0.55, light Reflectance of > 84%, sound attenuation of 34 db, Thermal conductivity K - 0.052-0.057 W/m <sup>0</sup> K, weight of 3.53 kg/m <sup>2</sup> and Humidity Resistance of RH - 99%.				
<b>7</b>	<b>Vertical Blinds</b>	85	SQMT		
	Providing and fixing 100mm wide vertical blinds of Vista Make or equivalent quality and colour shade and pattern. Rate shall include necessary scotch guard treatment on both side. The overlaps should be uniform and adequate. Basic cost of blinds should not be less than Rs.1200 per Sqm				
<b>8</b>	<b>Column and wall Paneling</b>	30	SQMT		
	Providing and fixing cladding around the columns to detail as per drawing frame work Aluminium Box section of 2mm thickness of 50 X 25mm & comprising 8mm thick calcium silicate Board of approved make on both sides of framework from floor level to 6"above false ceiling level, Jointing and finishing should be flush look which includes filling and finishing with compatible filler compound / Silicon Acrylic based putty and self adhesive fiber glass mesh and applying two coats of approved colour Emulsion paint finish with necessary primer putty and primer including provision of electrical sockets, scaffolding etc.				
<b>9</b>	<b>Wall paneling</b>				
<b>a)</b>	Providing and fixing wall paneling to detail as shown in the drawing With out frame direct to the wall it should be covered by with 18mm this MDF board finished with 1mm thick laminate.	50	SQMT		
<b>b)</b>	Same as above specification the paneling with Aluminium Box section of 2mm thickness of 50 X 50mm, vertically at about 60cm centers	35	SQMT		

<b>SUPPLY AND FIXING OF BROUGHT OUT FURNITURE FACTORY MADE</b>					
<b>NOTE</b>	(1)All table top, storage top, doors & side support verticals of storages, front facia of drawer units with mdf only (2)All aprons, support legs of tables, back cover for storages and drawer units, partition panels in particle board (3) All tables should be self standing. (4) Dimensions should not be differed from the drawings.				
<b>I</b>	<b>OFFICE TABLES</b>				
<b>a</b>	<b>TYPE A - GM TABLE - 2450MM X 1200MMX750MM</b>		1	NOS.	
	Table top of size mentioned above in 30mm Thick PLB Table Top with 2mm PVC Edge Banding on all exposed edges..Supported on Ms powder Coated Square Perform Legs 50mmX50mm, Supporting MS beams 50X50mm. Front & side modesty panel 18mm Thk Plt modesty panel of 450& 300 mm ht gap from floor level. moulded pvc key board tray with pen / pencil slots and with wrist pad mounted on haffle telescopic channel for smooth movement, Wire Management: wire raiser considered 550mm Aluminium Flip up with provision to mount switches and sockets on table from below table raceways for power and data management (2UPS+3RP withswitch & data and telephone)and a castor mounted ms trolley also to be provided along with table. detached drawer pedestal 2 nos of each size 400w x 500d x 600 ht (1 box and 1 file drawer) shall be made up of mdf shade with approved laminate and with central locking with dual key. the drawer inner tray to be approved shade which should be fitted to the approved make telescopic channels for smooth movement. the front facia with 19mm prelam mdf board with 2mm thick pvc edge banding and mounter with 4" ss handles and other details should be as per scope drawings.				
<b>b</b>	<b>TYPE B -DGM TABLE - 1800MM X 850MMX750MM ALONG WITH SIDE TABLE 450MMX1000MM</b>		2	NOS.	



	<p>Table top of size mentioned above in 30mm Thick PLB Table Top with 2mm PVC Edge Banding on all exposed edges..Supported on Ms powder Coated Square Perform Legs 50mmX50mm, Supporting MS beams 40X20mm. Front &amp; side modesty panel MS powder coated sheet with Approved CNC cutt finish from 300 &amp;400mm above the FFL. moulded pvc key board tray with pen / pencil slots and with wrist pad mounted on haffle telescopic channel for smooth movement, Wire Management: 65Dia Wire Manager Grommet , 70mm Thk Metal for Power and data management and a castor mounted ms trolley also to be provided along with table. detached drawer pedestal of size 400w x 500d x 600 ht (1 box and 1 file drawer) shall be made up of mdf shade with approved laminate and with central locking with dual key. the drawer inner tray to be approved shade which should be fitted to the approved make telescopic channels for smooth movement. the front facia with 19mm prelam mdf board with 2mm thick pvc edge banding and mounter with 4" ss handles and other details should be as per scope drawings.</p>			
<b>c</b>	<p><b>TYPE C - AGM AND CM TABLE - 1500MM X 750MMX750MM ALONG WITH SIDE TABLE 450MMX1000MM</b></p>	15	NOS.	
	<p>Table top of size mentioned above in 25mm Thick PLB Table Top with 2mm PVC Edge Banding on all exposed edges..Supported on Ms powder Coated Square Perform Legs 50mmX50mm, Supporting MS beams 40X20mm. Front &amp; side modesty panel MS powder coated sheet with Approved CNC cutt finish from 300 &amp;400mm above the FFL. moulded pvc key board tray with pen / pencil slots and with wrist pad mounted on haffle telescopic channel for smooth movement, Wire Management: 65Dia Wire Manager Grommet , 70mm Thk Metal for Power and data management and a castor mounted ms trolley also to be provided along with table. detached drawer pedestal of size 400w x 500d x 600 ht (1 box and 1 file drawer) shall be made up of mdf shade with approved laminate and with central locking with dual key. the drawer inner tray to be approved shade which should be fitted to the approved make telescopic channels for smooth movement. the front facia with 19mm prelam mdf board with 2mm thick pvc edge banding and mounter with 4" ss handles and other details should be as per scope drawings.</p>			

<b>d</b>	<b>TYPE D - OFFICE TABLE - 1500MM X 600MMX750MM</b>	30	NOS.		
	<p>Table top of size mentioned above in 25mm thick Pre-laminate particle board finished with 2mm PVC Edge Banding on all exposed edges. AL 30mm Thk 1500 X450mm Trim Screen with Fabric and Glass Marker tile of 450mm Ht. Under structure table top Supported on MS Powder Coated 50X50 Square perform Legs &amp; center beams CR beam 40mmX20mm, Supporting MS beams with pc, btt raceway frame 150 to 250 ht (main spine only) with pc, each cluster 2nos of wire raiser considered 400mm Aluminium Flip up with provision to mount switches and sockets on table from below table raceways for power and data management (1UPS +2 RP withswitch &amp; data and telephone), 18mm Thk Plt 650mm X650mm box to be covered with inbetween sides of legs and 300 mm ht front modesty from the table bottom The aisle side MS powder coated sheet with Approved CNC cutt finish from 400mm above the FFL. moulded pvc key board tray with pen / pencil slots with wrist pad mounted on haffle telescopic channel for smooth movement, MS trolley also to be provided along with table. detached drawer pedestal of size 400w x 500d x 600 ht (1 box and 1 file drawer) shall be made up of mdf shade with approved laminate and with central locking with dual key. the drawer inner tray to be approved shade which should be fitted to the approved make telescopic channels for smooth movement. the front facia with 19mm prelam mdf board with 2mm thick pvc edge banding and mounter with 4" ss handles and other details should be as per scope drawings.</p>				
<b>e</b>	<b>TYPE E -CONFERENCE MEETING TABLE - 4500MM X 1500MMX750MM</b>	1	NOS.		
	<p>Table top of size mentioned above in 30mm Thick PLB Table Top with 2mm PVC Edge Banding on all exposed edges..Supported on Ms powder Coated Square Perform Legs 50mmX50mm, Supporting MS beams 50X50mm. Wire Management wire raiser 450mm aluminium flip up (2nos) and provision to mount switches and socket on the PVC cable dump to be provided. for power and data management (each 1UPS+2RP withswitch &amp; data and telephone)</p>				



II	<b>STORAGES</b>				
a	<b>TYPE S1 - BACK STORAGE - As per site needed L X 450DX 700/1200HT.</b>	78	SQMT		
	Free standing side credenza of above mentioned size with openable shutters in 19mm thk prelaminated mdf board , 19mm thk prelam mdf board for verticals & bottom, back of 9mm thk prelam particle board, with back to be inserted in the groves provided in the verticals top and bottom, with pvc edge banding on all exposed edges, 25mm thk top in post formed laminated on facing edge and other three sides edge banded, adjustable shelves at app 16" c/c.with 19 mm. with pre laminated particle board & all necessary fittings like 4" long ss brushed finish handles, tower bolts, self closing hafele make hinges, godrej make/hafele make locks & any miscellaneous items. the bottom facing skirting to be in same laminate finished as per scope drawings				
b	<b>TYPE S2 - BACK STORAGE - As per site needed L X 450DX 2400HT.</b>	17	SQMT		
	Free standing side credenza of above mentioned size with openable shutters in 19mm thk prelaminated mdf board , 19mm thk prelam mdf board for verticals & bottom, back of 9mm thk prelam particle board, with back to be inserted in the groves provided in the verticals top and bottom, with pvc edge banding on all exposed edges, 25mm thk top in post formed laminated on facing edge and other three sides edge banded, adjustable shelves at app 16" c/c.with 19 mm.pre laminated particle board & all necessary fittings like 4" long ss brushed finish handles, tower bolts, self closing hafele make hinges, godrej make/hafele make locks & any miscellaneous items. the bottom facing skirting to be in same laminate finished as per scope drawings				
<b>GRAND TOTAL FOR INTERIOR WORKS*</b>					

**Note: All amounts are exclusive of GST**





**SCHEDULE OF QUANTITIES FOR ELECTRICAL WORKS**

SL	DESCRIPTION	QTY.	UNIT	SUPPLY		ERECTION	
				RATE	AMOUNT	RATE	AMOUNT
	<b><u>PANEL &amp; DISTRIBUTION BOARDS</u></b>						
1	<b>POWER PANEL</b>						
	Supply, testing and commissioning of following FLOOR PANELS suitable for 415V, 3 phase, 4 wire, 50Hz distribution system. The panel shall be IP 44, Free standing , Floor mounting , Vermin Proof , CRCA sheet metal enclosed, flush front with copper busbars, with75 kA / 55 kA for 1 second rating , as per SLD, separate earth bus shall be provided throughout the length of the panel. The sheet steel fabricated panel made out of 14 SWG ( Shell & Door ) / 16 SWG ( Internal Partition ) CRCA Sheet steel fully treated by 7 tank process and powder coated with 60 to 70 Micron finish. only gavanised , zinc passivated hardware shall be used for assembly . The incoming and the outgoing feeder breakers, switch fuse units, change over switches, indicating lamps, meters etc. shall be accommodated in a modular multitier arrangement. A minimum of 400mm clearance shall be given from the floor level to the bottom						



<p>most termination point. Adequate size cable alley &amp; Busbar Chambers shall be provided with in the panel and at the back for easy bending and terminations. The outgoing feeders inside the panel shall be connected through solid busbars / Flexible cable links depending upon the current rating. Busbars shall be provided with PVC heat shrinkable sleeves . The panels shall be suitable for cable entry from top / bottom. The GI earth strip of Suitable Size with two run shall run throught out the perimeter at the bottom or top of the panel. All the panels with Top &amp; Bottom Entry provision.The panel shall be "Linear" or "L" or Double front construction type to suit proposed electrical room. Door Earthing &amp; Switch Gear Earthing wherever required to be done.There shall be a continuous GI earth bus throughout the perimeter of the bottom of the panel. All CT earthing shall be connected to this bus. All panel doors shall be connected to the body by atleast two copper flexibles. Bus duct / cable entry shall be from top/bottom. ( Please ref SLD enclosed ). However required MS channel support &amp; anchor fastner including all hardwares are included in the scope of electrical contractor.</p>						
Incomer:						
1 nos. 250 A 4P 36 KA MCCB						
Outgoings:						
1 no. 32 A TPN 25 KA MCCB						
1 nos. 100 A TPN 25 KA MCCB						
6 nos. 63 A TPN 25 KA MCCB						
1 set R,Y,B phase indicating lamps (LED) with MCB						



	1 set of Multi meter with suitable CT's shall be provided in incomer.						
	1 set 250 A capacity copper bus bars with 3 phase and neutral duly insulated with PVC colour sleeve (heat shrink) mounted on SMC/DMC base block.						
	All the MCCBs should be provided with variable setting arrangement						
	Board powder coated with approved colour paint. Rate should include for providing necessary base channel for erection complete with foundation bolt, nuts etc., and all connected civil work for grouting the panel						
	Note: For all MCCBs ICU = ICS (100%) All the MCCBs should be provided with spreaders & rotary handle as required and should have provision for padlocking arrangement						
	<b>Power Panel as above</b>	1	each				
	Supply, installation, testing and commissioning of following type Ready Made Distribution Boards, with Double Door arrangement with magnetic lock complete with following switch gears .The DB shall be powder coated type using CRCA sheet steel enclosure.						
2	<b>LDB</b>						
	L DB, 6 way ,7 Segment TPN DB comprises: ( Horizontal Type , Ready Made DB )						
	<b>Incomers having:</b>						
	One (1) - 32A, 4P, 10kA, MCB 'C' Curve						
	<b>Sub Incomers:</b>						



	Three (3) - 32A, DP, RCCB ( 30mA ) with separate neutral & earth link in each compartment (For Lighting )					
	<b>Outgoing feeders:</b>					
	18 Nos - 6/10A, SP, 10kA, MCB-'C' curve.					
	LDB - as above	1	No			
3	<b>PDB &amp; AC DB</b>					
	P DB, 6 way ,7 Segment TPN DB comprises: ( Horizontal Type , Ready Made DB )					
	<b>Incomers having:</b>					
	One (1) - 63A, 4P, 10kA, MCB 'C' Curve					
	<b>Sub Incomers:</b>					
	Three (3) - 63A, DP, RCCB ( 30mA ) with separate neutral & earth link in each compartment					
	<b>Outgoing feeders:</b>					
	18 Nos - 16/20A, SP, 10kA, MCB-'C' curve.					
	PDB - as above	2	No			
4	<b>UPS PDB</b>					
	DB, 8 way ,7 Segment TPN DB comprises: ( Horizontal Type , Ready Made DB )					
	<b>Incomers having:</b>					
	One (1) - 63A, 4P, 10kA, MCB 'C' Curve					
	<b>Sub Incomers:</b>					
	Three (3) - 63A, DP, 10kA, MCB with separate neutral & earth link in each compartment					



	<b>Outgoing feeders:</b>						
	24 Nos - 16/20A, SP, 10kA, MCB-'C' curve.						
	DB - as above	1	No				
5	Supplying and fixing 63 A 4P MCB with Outdoor enclosure (For AC OUTDOOR UNIT)	2	Nos.				
	<b><u>SUB-MAIN</u></b>						
	<b>POWER SOCKET CIRCUITS</b>						
6	Supply, Laying, Testing and Commissioning of <b>3 Core 2.5sqmm FRLS copper Flexible Cables</b> in Existing MS conduit pipe / Race ways complete with all accessories like junction boxes, rubber bushes etc.as required.( <b>Black Clour - Raw 3 Nos. 5 A &amp; 15A Raw Power Sockets</b> )	1750	Mtrs				
7	Supply, Laying, Testing and Commissioning of <b>3 Core 2.5sqmm FRLS copper Flexible Cables</b> in Existing MS conduit pipe / Race ways complete with all accessories like junction boxes, rubber bushes etc.as required. ( <b>White Clour - UPS Power Sockets</b> )	1750	Mtrs				
8	Supply, Laying, Testing and Commissioning of <b>3 Core 4.0 sqmm FRLS copper Flexible Cables</b> in MS conduit pipe complete with all accessories like junction boxes, rubber bushes etc.as required.(Split A/C Units)	350	Mtrs				
9	Supply and installation of 3R 2.5 sqmm PVC insulated multi strand FRLS copper wire drawn in 20/25mm dia MS conduit to be laid, partitions etc complete with all accessories ( <b>FOR AC UNITS &amp; Camera &amp; Other Power Socket Circuits</b> ) including providing necessary marking of circuits with ferrules	650	Mtrs				



	for Raw power.						
	<b>SOCKETS</b>						
10	Supply, Erection, Testing and Commissioning of Modular type 2 Nos. 6 A International / Universal SOCKET controlled by 1 No 10 A switch with Indicator in Galvanised metal/PVC Boxes fixed on Modular face plates in recess/Surface and with necessary accessories as per site condition (For Raw Power Sockets)	55	Nos				
11	Supply, Erection, Testing and Commissioning of Modular type 3 Nos. 6 A International / Universal SOCKET controlled by 1 No 16 A switch with Indicator in Galvanised metal/PVC Boxes fixed on Modular face plates in recess/Surface and with necessary accessories as per site condition (For UPS Sockets)	58	Nos				
12	Supply, Erection, Testing and Commissioning of Modular type 1No. 6 A International / Universal SOCKET controlled by 1 No 6 A switch in Galvanised metal/PVC Boxes fixed on Modular face plates in recess/Surface and with necessary accessories as per site condition (For AC Indoor units & Camera & Other Power Sockets)	26	Nos				
13	Supply and installation of Modular type 6/16A, 5pin, combination type shuttered switched socket outlet, controlled by a separate 16 A SP Modular Type switch, G.I outlet box and moulded plastic cover plate as required including termination of wires	10	Nos				
13a	Supply and fixing 16A modular double pole switch with front plate housed in suitable zinc passivated metal box to be fixed in partitions or concealed in walls. (Master	58	Nos.				



	control)						
14	Supplying and laying 25 mm dia. 2 mm thick rigid PVC conduit pipe complete with all accessories with GI pull wire for data socket outlets. Conduit embedded in floor/wall using cutting machine as per site requirement.	250	Mtrs				
15	Supply and installation of 25 mm dia. 16 G thick MS conduit pipe to be laid on wall, and partitions etc including all necessary materials	250	Mtrs				
<b><u>FLOOR RACE WAYS AND JUNCTION BOX FOR DATA &amp; VOICE</u></b>							
16	Supply, laying and installation of following trapezoidal PVC floor ducting supplied in three meters per length including trunk connector, clamp, vertical/ horizontal bend etc in screed floor or on wall in line with EN 50085 including chasing and refilling the trench as per the route shown in the drawing and approved by consultant/ client at site including clamping & closing the open ends temporarily by suitable end covers against entry of dust or any foreign materials. Installation rates of PVC trunk should be inclusive of necessary hardware and arrangement required for fixing of trunk with duct connector and fastening clamp. This activity also includes Duct connector, Fastening Clamp alongwith associated accessories. <b>(Including Floor Cutting &amp; after laying side and top pacing with cement concrete 1:5 ratio of the Existing floor the floor level should be same from original level)</b> <b>Make : OBO</b>						
a	90 mm wide x 35 mm deep trapezoidal UPVC duct with 2 mm thick	295	Mtrs				



17	<p>Supply and installation of following floor junction box height adjustable from 60 to 75 mm with GI Powder coated trap and frame fitted with 2+3 mm Trap + GI load plate in line with EN 50085 suitable for 1.5 KN loading class with 10 mm floor covering protection flange complete with UPVC duct entries on all four sides and necessary recess for accomodating floor finshing material. The floor junction Trap, Frame, load plate and protection flange needs to be powder coated colour matched to the final floor finishing as per architect's choice.</p> <p><b>Make - OBO</b></p>						
	<p>The base floor boxes need to be supplied with height adjusting pillars in four corners for the first fix installation. GI hardware to make the installation complete, like supply of necessary screed anchors and grouting etc. including breaking walls, floors, etc. for structures as required including supply of all GI hardware materials, all labour and materials complete as per approved drawings, specifications of this tender and directions of Engineer-in-charge including minor civil work.</p>						
a	<p>358 mm x 358 mm GI under floor box suitable for three run of 90 x 35 mm UPVC Duct entries on all side complete with screeding cover and 358 mm x 358 mm square GI + Powder coated inspection cover complete with load plate colour matched to the floor finish with the RAL colour code confirmed by the architect. The floor boxes need to be supplied with 10 mm floor covering protection flange all around the trap and frame.</p>	7	No				
b	<p>260 mm x 260 mm GI under floor box suitable for two runs of 90 x 35 mm UPVC Duct entries on all side complete with screeding cover and 266 mm x 266 mm</p>	10	No				





	square GI + Powder coated inspection cover complete with load plate colour matched to the floor finish with the RAL colour code confirmed by the architect. The floor boxes need to be supplied with 10 mm floor covering protection flange all around the trap and frame						
c	185 mm x 185 mm GI under floor box suitable for single run of 90 x 35 mm UPVC Duct entries on all side complete with screeding cover and 186 mm x 186 mm square GI + Powder coated inspection cover complete with load plate colour matched to the floor finish with the RAL colour code confirmed by the architect. The floor boxes need to be supplied with 10 mm floor covering protection flange all around the trap and frame.	35	No				
d	Supply, erection, testing & commissioning of floor junction box top cover for above raceways of 2.5mm thick , Stainless steel sheets with removable screwed cover plates on all four sides for blocking the entry.						
	358 mm x 358 mm SS Cover	7	Nos.				
	260 mm x 260 mm SS Cover	10	Nos.				
	185 mm x 185 mm SS Cover	35	Nos.				
	<b><u>WIRING</u></b>						
18	Wiring for light, fan, 6/16 A socket outlet points etc., partly in surface conduit (in ceiling) and partly in recessed conduit system (in wall/partition/vertical drops etc., with 3 runs of 1.5 sq.mm (P + N + E) PVC insulated Flame Retardent Low Smoke copper wire in 20/25 mm dia. 16 G thick MS conduit pipe (all as per IS 9537 part II) complete with all accessories like junction boxes, rubber bushes etc., including						



	supplying and fixing 6A modular type switch with front plate for control housed in a zinc passivated MS box of approved make and giving connections.(Box recessed in wall/partition)						
a	Light point - 1 light controlled by 1 no. 6 A switch	75	Each				
b	Light point - 2 lighs controlled by 1 no. 6 A switch	45	Each				
c	Light point - 3 lighs controlled by 1 no. 6 A switch	20	Each				
d	Wiring for call bell points with modular bell push, modular type buzzer, with indicator and reset button.	3	Each				
e	Wiring for of 6A multi pin socket lin the switch box along with 6A modular type switch.	12	Each				
f	ceiling fan point along with 100W step type electronic regulator.	RO	Each				
g	Same as item no 4.1, but for exhaust fan with 6a switched socket	2	Each				
19	Wiring for lighting cicuit mains all as detailed in item above, but with 3 runs (P + N + E) of 2.5 sq.mm FRLS copper wire in 20/25 mm dia. 16 G thick MS conduit pipe (all as per IS 9537 part II) completee with all accessories like junction boxes, rubber bushes etc. and cable marking ferrules as required. Circuit measured from DB up to first switch control box only( Circuit Main & Sinage Lighting Circuits)	650	Mtrs				
20	Emergency Lighting Wiring cicuit mains all as detailed in item above, but with 3 runs (P + N + E) of 2.5 sq.mm FRLS copper wire in 20/25 mm dia. 16 G thick MS conduit pipe	400	Mtrs				



	(all as per IS 9537 part II) completee with all accessories like junction boxes, rubber bushes etc. and cable marking ferrules as required. Circuit measured from DB up to first switch control box only( Emergency Lighting Wiring)						
	<b>SUPPLY &amp; INSTALLATION OF LIGHT FITTINGS</b>						
21	Same as above, but supply, erection, testing and commissioing of (2' x 2') LED light fittings complete with all accessories suitably suspended with anchor fastener hook and auto clutch wire with end clamps. The fitting should be independenty supported from the ceiling and should not rest on the false ceiling. simmlar to <b>(PHILIPS - RC380B LED30S-6500 L60W60 PSD OD S1 ) - Full Glow Type</b>	115	Each				
22	Supplying, fixing testing and commissioning of <b>15 W LED recessed down lighter</b> complete with all accesories in the false ceiling including giving connections complete as required. Rate should include for all necessary supports for mounitng the light fittings - <b>similar to (PHILIPS - DN194BLED15S-6500 PSU WH S1)</b>	101	Each				
23	S I T C of 305mm dia light duty exhaust fan (900rpm) along with auto gravity louvre	2	Each				
	<b>CABLE &amp; TERMINATIONS</b>						
24	Supply, Laying, testing and comissioning of the following sizes of XLPE insulated, heavy duty aluminium/Copper conductor cable, 1.1 KV grade armoured, MV cable as required, generally confirming to IS:7098/Part-1 with upto date amendments.						
a	3 1/2 X 185 SQ.MM.AL.AR.CABLE	65	Mtrs				



b	4.0C X 6 SQ.MM.CU.AR.CABLE	65	Mtrs				
c	4.0C X 10 SQ.MM.CU.AR.CABLE	185	Mtrs				
d	4.0C X 16 SQ.MM.CU.AR.CABLE	75	Mtrs				
e	4.0C X 4 SQ.MM.CU.AR.CABLE	65	Mtrs				
25	Supply and Installation of cable end termination of the following size PVC Insulated and PVC sheathed Aluminium/Copper armoured cable 1.1KV grade with suitable glands and Aluminium / Copper Crimping Sockets etc. The cable gland shall be provided with suitable earth clip.						
a	3 1/2 X 185 SQ.MM.AL.AR.CABLE	2	Set				
b	4.0C X 6 SQ.MM.CU.AR.CABLE	2	Set				
c	4.0C X 10 SQ.MM.CU.AR.CABLE	8	Set				
d	4.0C X 16 SQ.MM.CU.AR.CABLE	2	Set				
e	4.0C X 4 SQ.MM.CU.AR.CABLE	2	Set				
26	Supply, erection of following sizes <b>GI ladder type/perferated type</b> cable rack system made out of sheet steel folded to required shape with adequate number of supports.						
	The cable rack shall have runners rugs of suitable size, horizontal elbow, vertical elbow 90 Deg. Up vertical elbow 90 Deg. Down, re-deep, coupler plates, materials. The cable racks shall be suspended from ceiling supported from side walls in columns etc. with adequate size supporting angles / channels with fastners, welding, anchor bolts, nuts etc. The rack shall have suitable cable clamping arrangements etc.						
a	<b>100mm wide tray size of 50mm height with 2mm thickness Perforated Cable</b>	35	Mtrs				



	<b>Tray</b>						
	<b>Earthing</b>						
27	Supplying and laying 25 X 6 mm GI Flats for earthing of panel & Cable Tray	50	mt				
28	Supplying and laying 8 SWG bare copper wires for earthing of all DB's and panels	350	mt				
29	Supplying and fixing Earthing Bridge Clamps in electrical room complete with 20 Nos Brass Terminals for Earth Bus.	2	No				
	<b>DATA &amp; VOICE SYSTEM CABLING WORKS</b>						
30	Supply, Laying, testing and commissioning of 4 Pair UTP Cat 6, Cable <b>For Data &amp; Telephone</b>	3275	Mtr.				
31	Supply, Installation, Testing and Commissioning of RJ 45 Socket with backbox. For Data & Telephone	98	Nos.				
	<b>TOTAL</b>						
	<b>GRAND TOTAL of Electrical Work*</b>						



**SCHEDULE OF QUANTITIES FOR AIR CONDITIONING WORKS**

SI.No.	Item Description	Unit	Qty.	Supply		Erection	
				Rate	Amount	Rate	Amount
1	EQUIPMENT						
1	VRF SYSTEM						
	Supply of Modulating outdoor units, with multi scroll/Rotary compressors with capacity controlling compressor, special pre-coated fins, panel, corrosion resistant (suitable for seaside installation) coated condenser, inverter based condenser fan mounted as indicated in the drawing, electrical & microprocessor panel, isolating valves and all the necessary accessories for proper functioning of the units, having following approximate capacities.						
	VRF SYSTEM - 01						
1.1	16 HP ODU UNITS ( TOP DISCHARGE)	Nos.	2				
1.2	18 HP ODU UNITS ( TOP DISCHARGE)	Nos.	1				
2	Indoor units						
	Supply of VRF based indoor units complete with remote and all accessories, Vibration isolators & supports.						
A	Ceiling Mounted Cassette type						
2.1	2.0 TR for Indoor unit at Meeting Room	Nos.	1				

2.2	2.0 TR for Indoor unit at Conference Room	Nos.	2				
2.3	2.0 TR for Indoor unit at GM Cabin	Nos.	1				
2.4	2.0 TR for Indoor unit at Waiting Area	Nos.	2				
2.5	1.3 TR for Indoor unit at DGM - 01 &02	Nos.	2				
2.6	2.0 TR for Indoor unit at Workstation - First Floor	Nos.	12				
3	Supply of VRF Refenet Joints	Nos.	22				
Total - EQUIPMENT							
A	OVER ALL EQUIPMENT COST -A						
B	INSTALLATION OF VRF SYSTEM						
1	Erection, testing and commissioning of VRF based Ceiling Mounted Cassette units complete with remote and all accessories, fire rated flexible canvas, Vibration isolators & supports.	Nos.	20				
2	Testing and commissioning of VRF based Outdoor units , Vibration isolators & supports.	Nos	3				
3	VRF ODU Units lifting for first floor level	Nos	3				
4	Installation of VRF Refenet Joints.	Nos	22				



5	Supply&istallatioGas Charging for VRF Outdoor units	Nos	3				
6	Pedestals for VRF Outdoor units at first floor level	Lot	1				
	Total - EQUIPMENT						
B	OVER ALL INSTALLATION COST-B						
C	SUPPLY&INSTALLATION OF LOW SIDE WORK						
1	All refrigerant Copper piping along with insulation and refrigerant joints, supports between indoor & outdoor units duly insulated ( As per Site Conditions the referigerant Piping will be Increase or Decrease )						
1.1	Copper pipe with Insulation	RMT	250				
2	Control cabling & earthing as per specifications between out door unit & indoor units. The cables should be Cross linked polythene insulated, armoured Copper cabling ,Power supply (3 phase 415 Volts will be made available near outdoor units. supply single phase will be made availabe near indoor units.	RMT	285				
3	Providing and fixing in position the following PVC drain pipes cut to required lengths and installed with all screwed joints, and providing and fixing in position the necessary elbows, tees and						





	reducers as per specifications and shall be insulated with thick nitrile rubber.						
3.1	25mm dia	RMT	125				
3.2	32 mm dia	RMT	95				
4	Supply & Installation of Fresh air fans with pre filter						
4.1	1800 Cfm Fresh air fans with pre filter	Nos	1				
5	Fresh air Louver	Sq.mtr	1				
6	Canvass Connection	Sq.mtr	1				
7	Flexibile Duct	Sq.mtr	80				
8	Butterfly damper	Nos	24				
9	Thermal Insulation for Fresh air duct arrangement	Sq.mtr	150				
10	Supply & Installation of Volume Control Damper	Sq.mtr	1				
11	Supply & Installation of 24 GI Duct	Sq.mtr	130				
	Total - EQUIPMENT						
C	OVER LOW SIDE WORK - C						
	GRAND TOTAL (A+B+C)						

