

SBI LIFE INSURANCE CO. LTD.

Notice Inviting Tenders

SBI Life Insurance Co Ltd. invites sealed tenders from the contractors for the Interior & Allied Works for Bhopal Branch. Details of the tender are as under:

1. Name of work : Interior & Allied Works for Bhopal Branch
2. Time allowed for completion : 50 days from the date of work order.
- 3 Last date and time of receipt of tender : Till 15.00 hrs. on 18TH September ,2017
- 4 Tender to be addressed to : **THE ADVISOR (ADMIN. UTILITY)
SBI LIFE INSURANCE COMPANY LTD,
2ND FLOOR, RANJEET TOWER,
PLOT NO.8, M.P. NAGAR ZONE - 2
BHOPAL (M.P.) – 462 011**
- 5 Address at which the tenders are to be submitted : AS ABOVE.
- 6 Date and time of opening tenders : At 15.00 hrs.on 18th September, 2017
- 7 Place of opening tenders : AS ABOVE.
- 8 Defects liability period : 6 months
- 9 Validity of offer : 3 months from the date of tender opening
- 10 Liquidated Damages : Rs.5000 per day subject to a maximum of 10 % of contract value

SBI Life has the right to accept any, reject any or all tenders without assigning any reasons therefore.

For SBI Life Insurance Co. Ltd.

ABSTRACT OF SCHEDULE OF ITEMS FOR THE PROPOSED INTERIOR AND FURNISHING WORK AT SBI LIFE INSURANCE AT SECOND FLOOR ,NEAR ISBT BHOPAL.					
---	--	--	--	--	--

SUMMARY					
S.NO	DESCRIPTION				AMOUNT
1	INTERIOR FURNISHING WORK				
2	ELECTRICAL WORK				
3	FIRE EXTINGUISHERS				
4	AIR CONDITIONING WORK (VRF SYSTEMS)				
	TOTAL				

PART A - FURNISHING WORK					
S.NO.	DESCRIPTION	Quantity	UNIT	RATE	AMOUNT
1	<p>MAIN ENTRANCE DOOR : P/F New Entrance Glass Door made out of 2nd class Teak wood 4" x 2" sections with Top, Bottom and Vertical members with 8 mm thick Glass, T.W beading/ moulding, complete with melamine polished, Handle of approved design, P/F Heavy Duty Floor Spring of approved make, with all accessories for the Main Entrance Door. The cost includes the Main Door frame made out of 4"x2 1/2" 2nd class Teak wood Frame. Rest as per design, instructions. The Rate Shall be inclusive of side 12mm. Thk. Fixed glass with 4" x 2" Teak wood Top & Bottom sections as mentioned above.</p>	32.000	Sq.ft.		
2	<p>LINEAR / RUNNING WORK STATION: P/F linear / running Work Station having a size of 4'-0"X2'-0"X2'-6"ht. in 25 mm thk. Exterior Grade Block Board of approved make for table top and side supports. The Front apron in 12mm.thk. BWP ply with approved colour Laminate & on fixed Raised panel in 12mm. Thk. Finished In approved colour Laminate for all exposed surface, fixed with S.S. Studs & the top and sides of the counter to be finished on both sides with 1 mm thk. Laminate of approved make and shade / design. A drawer unit of size 1'-4"X1'-8"X2'-5" in 19 mm BWP ply with three drawers as per the drawing etc complete. Rate shall be inclusive of P/F 12mm.thk. front glass 2'-0"ht.on table top for work station with diamond edge polish with S.S."D" brackets .(Low height partitions abutting the counters will be paid separately & also Please Check the Counter Length during execution as per plan / Site Condition).</p>	112.000	Rft.		

3	RECEPTION TABLE Providing and placing Reception table of size 10'8"x2'6"x2'6"ht. Same as Item No. 2 above but table top and sides and extended panels on wall & ceiling in acrylic solid surface with back lit arrangement and other details as per drg.,design & instructions of Architect	1.000	No.		
4	DINING TABLE :				
a	Lunch room(running counter 1'6" wide)				
	Providing and fixing granite running counter in black galaxy granite top supported over W.P.C. /Marble Partitions at a spacing of 600mm c/c as per Detailed Drawing and instructions of Architect	18.750	Rft.		
b	Lunch room(Table 2'0" wide)LUNCH ROOM TABLES :- Providing and fixing tables of specified sizes to be made up of 18mm th. BWP grade plywood & 1.00mm thk. laminate finish etc. complete As per drawing / design.	2.000	No		
5	TABLE / WORK STATION WITH CREDENZA WITH TABLE FRONT APRON : P/F Office Table having a size of 5'-0"X 2'-3"X2'-6" in 25mm thk. Exterior Grade Block Board of approved make for table top and sides. Table Front apron made out of 12mm.thk BWP ply with approved colour laminate & on additional raised panel 12mm.thk. BWP ply. With approved colour laminate fixed with S.S. Studs for Table front apron .The Side credenza of size 3'-0"X1'-6"X2'-6"ht. in 19 mm BWP ply with drawers & openable shutters as per the drawing, finishing in 1 mm thk laminate of approved make and shade / design etc. complete. (Low height partitions abutting the counters will be paid separately & Please check the Table width & Side credenza size as per layout to fit site condition).	12.000	No.		

6	<p>CABIN TABLE WITH CREDENZA : P/F Cabin Table having a size of 5'-6"X2'-4"X2'-6" in 25mm thk. Exterior Grade Block Board of approved make for table top and sides. Table Front apron made out of 12mm.thk BWP ply with approved colour laminate & on additional raised panel 12mm.thk. BWP ply. With approved colour laminate fixed with S.S. Studs for Table front apron . The Side credenza of size 3'-6"X1'-6"X2'-6"ht. in 19 mm BWP ply with drawers & openable shutters, as per the drawing, finishing in 1 mm thk laminate of approved make and shade / design etc. complete. (Please check the Side credenza size as per layout to fit site condition).</p>	2.000	No.		
7	<p>LOW HEIGHT PARTITION in BWP Ply & Laminate. P/F Low ht. partition 1.22 m high made out of 16 gauge 50 mm x 50 mm Alum. Framing at 60 cm C to C horizontally & vertically as directed or as per design / instructions. The 16 gauge aluminium angles cleats shall be used for joinery with aluminium metal screw. The aluminium framing then shall be covered with 12mm.Thk. BWP ply of approved make finished in 1 mm thk laminate of approved make & shade. The Partition with Partly 10 mm thk clear float glass with four side 2nd class Teak wood mouldings. The partition top shall be provided with 80 mm wide x 12mm thick moulding patty in 2nd class Teak wood with melamine Polish. The rate also include of Open able Flap door with locking arrangement as per requirement. The necessary openings shall be provided in the partition for the Electrical/Telephone conduits & outlets as per design/instructions.</p>	1889.040	Sq.ft.		

8	<p>FULL HEIGHT PARTITIONS (Fully Panelled) in Ply & Laminate. P/F full height partitions made out of 16 gauge Aluminium Framing of 50 mm x 50 mm at 0.60 m. centre to centre, vertically & horizontally both ways. At every 0.60 m., the Aluminium frame, section of 50 mm. x 50 mm. at wall, side of doors and corners of the partitions must be taken up to RCC ceiling level and rigidly fixed. The 16 gauge aluminium angle cleats shall be used for joinery with aluminium metal screws. The aluminium framing then shall be covered with 12mm.Thk. BWP ply of approved make finished in 1 mm thk laminate of approved make & shade, with necessary cuttings for Electrical conduits & Electrical fittings as per directions. Rest as per design/instructions. The partition rate shall be including 35mm th. glazed/ wooden door with door frames, handles/ locks/ fitting/ door closer/ hinges/ floor spring etc. as per the drawings/design etc. complete . Note : For the measurements of Partitions, area up to the false ceiling height only shall be considered.</p>	1599.390	Sq.ft.		
9	<p>PARTLY GLAZED PARTLY PANELLED FULL HT. PARTITION : P/ F. Full height partly glazed partly panelled Partition made out of 2" square aluminium pipe, both ways, at maximum 2' c/c, 12 mm thk BWP ply on both sides, finished in laminate of approved make & shade / design, 6 mm thk clear float glass, mouldings, making necessary cuttings in ply, al pipes etc to accommodate switch / socket boxes, conduit pipes etc, including 35mm th. glazed/wooden door with door frames, handles/ locks/ fitting/ door closer/ hinges/ floor spring etc. as per the drawings/design etc. complete . Note: For the measurements of Partitions, area up to the false ceiling height only shall be considered.</p>	853.600	Sq.ft.		

10	FULL HEIGHT PARTITIONS (Fully Panelled) in 12 mm thk. Gypsum Board. P/F full height partitions made out of 16 gauge Aluminium Framing of 50 mm x 50 mm at 0.60 m. Centre to centre, vertically & horizontally both ways. At every 0.60 m., the Aluminium frame, section of 50 mm. x 50 mm. at wall, side of doors and corners of the partitions must be taken up to RCC ceiling level and rigidly fixed. The 16 gauge aluminium angle cleats shall be used for joinery with aluminium metal screws. The aluminium framing then shall be covered with 12mm.thk. Gypsum Board of approved make finished with POP punning and 3 coats of approved make & shade of plastic emulsion paint with necessary cuttings for Electrical conduits & Electrical fittings as per directions. Rest as per design/instructions. Note: For the measurements of Partitions, area up to the false ceiling height only shall be considered.	160.380	Sq.ft.		
11	FULL HEIGHT STORAGE (2.13 m HIGH X 0.45 m DEEP) P/F Built in storage made out of 19 mm thk BWP Grade Marine Ply 45 cm deep, 6mm thk BWP Grade Marine Ply for the back, 1-1/4" thk. openable shutters with hinges as recommended & with laminate for all exposed surface & openable shutters in Laminate of approved colour. 19mm. removable shelves with laminate finish on both sides, edges shall be provided with leaping patties on all sides, at 40 cm spacing. All hinges, tower bolts, S.S Brush finish handles, ball-catches shall be of brass heavy duty. Complete with approved make Locks handles etc. complete as per design / instructions. All the shutters shall be made out of 12 mm.BWP Grade ply framing 80mm wide with 3 Nos. wide at middle horizontal and 2 vertical rails and then covered with 6 mm.BWP Grade marine ply from both sides with laminate on both sides of the shutter, as per design/instructions.	785.760	Sq.ft.		

12	WALL HUNG STORAGE (0.75 m HIGH X .33 m DEEP) P/F wall hung storage made out of 19 mm thk BWP Ply 33 cm deep, 6mm thk BWP Grade Ply for the back, 19mm thk.BWP Grade Ply, openable shutters with hinges as recommended & with laminate for all exposed surface, in Laminate of approved colour. 19mm. removable shelves with laminate finish on both sides, edges shall be provided with leaping patties on all sides, at 40 cm spacing. All hinges, tower bolts, S.S Brush finish handles , ball-catches shall be of brass heavy duty. Complete with approved make Locks handles etc. complete as per design / instructions.	106.450	Sq.ft.		
13	LOW HEIGHT STORAGE P/F CREDENZA Unit / storage made out of 19 mm thk BWP Ply 45 cm deep, 6mm thk BWP Grade Ply for the back, 19mm thk.BWP Grade BWP ply with drawers & openable shutters with hinges as recommended & with laminate for all exposed surface, in Laminate of approved colour. 19mm. removable shelves with laminate finish on both sides, edges shall be provided with leaping patties on all sides, at 40 cm spacing. All hinges, tower bolts, S.S Brush finish handles , ball-catches shall be of brass heavy duty. Complete with approved make Locks handles etc. complete as per design / instructions.				
a	LOW HEIGHT STORAGE (0.45 m DEEP)	281.325	Sq.ft.		
b	LOW HEIGHT STORAGE (0.60 m DEEP)	11.250	Sq.ft.		
14	PRINTER TABLE				

	P/F Printer Table storage made out of 19 mm thk BWP Ply deep as per drg., 6mm thk BWP Grade Ply for the back, 19mm thk.BWP Grade BWP ply with drawers & openable shutters with hinges as recommended & with laminate for all exposed surface, in Laminate of approved colour. 19mm. removable shelves with laminate finish on both sides, edges shall be provided with leaping patties on all sides, at 40 cm spacing. All hinges, tower bolts, S.S Brush finish handles , ball-catches shall be of brass heavy duty. Complete with approved make Locks handles etc. complete as per design / instructions.				
a	4'8"x3'6"	1.000	No.		
b	3'10"x2'0"	1.000	No.		
15	MAGNETIC WHITE BOARD : P/F Magnetic board 7'-0"X4'-0" (Ready made) of approved make on panelling / partition & workstations as directed.	1.000	No.		
16	SOFT BOARD :- Providing and fixing soft board made of 12mm thick soft board finished with fabric of approved colour having basic cost of Rs.200/- per mtr. Fixed with rubberwood beading 22x6mm which is melamine polished. etc. complete As per drawing / design.	135.000	Sq.ft.		
17	FLUSH DOOR WITH FRAME : P/F New 2nd class BTC Frame of 100mm x 50 mm with 38 mm thick Readymade Flush Door of approved make, finish from both sides with matching laminate of approved make & shade. The door shall be provided with approved make lock, knob, heavy duty door closer, 4 nos. of 5" brass oxidized hinges, SS Brush finish handle of 12" of approved design & fixing the same in position, etc. complete. Approx.Size:3'-3"x7'-0".	1.000	No.		
18	PAINTING WORK : Scraping down the existing lime wash/paint completely filling the cracks with Plaster of Paris/palti, apply one coat of primer and the 3 coats of plastic emulsion paint Lustre / Enamel paint of approved shade/brand to the walls, ceiling, windows/doors as per instructions.	4259.895	Sq.ft.		

19	VENETIAN/VERTICAL BLINDS : Providing and fixing in position approved quality, colour design and pattern 'Vertical Venetian Blinds' of approx width not less than 100mm fixed in position on aluminium powder coated guide rail, and nylon ropes for moving them etc complete.	569.395	Sq.ft.		
20	WOODEN BOX IN CEILING FOR CASSETTE A.C. :- Providing and fixing Wooden box made up of 18mm th. BWP grade Plywood of approximate size 1200x1200 frame for cassette AC finished with 1.0 mm thk. Laminate. etc. complete As per drawing / design.	19.000	No.		
21	GYP SUM BOARD FALSE CEILING : Providing and fixing in position suspended gypsum false ceiling with G.I. suspension system and 12mm thk. Gypsum board duly finished with POP punning and 3 coats of plastic emulsion paint etc. complete.	3393.853	Sq.ft.		
22	MODULAR FALSE CEILING : Providing and fixing Ecophon/ "AMF-Star" or equivalent approved Regular type mineral ceiling Tiles Edge : - Microlook. GRIDS :- Silhouette 15mm.Black/White reveal grids system as per the manufacturers' specification of Mineral Fiber ceiling including suspension system fittings & frame work as per manufacture's specifications.	1996.000	Sq.ft.		
23	METALLIC BAFFLE WITH POLYESTER COIL (CEILING) Providing and fixing Metalium U-Shaped Baffle Open ceiling of panel 50mm wide and 100mm deep length upto 3 mtr. Galvanized steel .5mm and 0.65 mm aluminiumTCT Carrier gap ,100mm made of galvanized steel .5mm thich stove enameled black . paint finish with : 55 microns thk. powder coating on exposed surface or 25 microns polyester coil coated over primer on visible surface with primer coat on rear side suspended with ht. adjustment spring steel big clip 4mm dia GS rod, panel coupler,carrier coupler, GS/Aluminium edge profile.	434.530	Sq.ft.		

24	ANUTONE WALL PANELLING Providing and fixing synth slim,core pigmented ,high density ,Synth PF rigid panels of size 1220x2440x9mm thk.and 220-230 kg/m3 density .Prior to installation ensure wall or surface behind are flat, dry and free from dust or other contaminants and leveled. Panels are then adhered to wall or surface behind with stick S7 Adhesive	403.780	Sq.ft.		
25	ARTIFICIAL GARDEN Providing and fixing artificial garden with bunches over a base of 12mm ply ,Polly ethiline material ,waterproof as per Drawing ,Design and instruction of Architect.	81.000	Sq.ft.		
26	COLUMN/ WALL PANELLING :- Providing and fixing at site wooden panelling with 12mm thick BWP grade plywood of approved make boxing/frame work finished with 1.00mm laminate of desired shades as per drawing including frame work of approved quality second class teak wood . The cost shall includes applying 2 or more coats of Antitermite paint to internal surfaces, providing moulded beading etc. complete including all materials, hardware, labours, polishing etc complete As per drawing / design.	1125.320	Sq.ft.		
27	TRAINING ROOM TABLES (Size 3'3"x2'0"):- Providing and fixing tables of specified sizes to be made up of 18mm th. BWP grade plywood & 1.00mm thk. laminate finish etc. complete As per drawing / design.	1.000	No.		
28	MEETING ROOM TABLE Providing and placing meeting room table with 12 mmthk toughened glass top of 2'6" dia with wooden supports.as per drg. Design and Instructions of Architect.	1.000	No.		
29	P / S Swivel Chair (High Back) In MS frame covered with breathable Mesh in black for back & Lumber support, 12 mm Moulded ply for seat with PU on it. PU Adjustable arms, Chrome base, Head Rest, Synchro mech. & Gas Lift etc. complete. Methodex , Godrej , Featherlite.	2.000	No.		

30	P / S Swivel Chair (Mid Back) In MS frame covered with breathable Mesh in black for back & Lumber support, 12 mm Moulded ply for seat with PU on it. PU Adjustable arms, Chrome base, Synchro mech. & Gas Lift etc. complete. Methodex , Godrej , Featherlite.				
a	MANAGER	4.000	No.		
b	ED/MD CLUB/UMS	16.000	No.		
c	WORKING OFFICER	42.000	No.		
d	VISITER	23.000	No.		
31	Lunch room Chair (Non-revolving chair) Make Methodex , Godrej , Featherlite	12.000	No.		
32	P / S of Training Chairs . As per the image shown. Methodex , Godrej , Featherlite.	57.000	No.		
33	SOFA :- Providing and placing sofa with wooden leg construction in 18mm th. BWP grade plywood 150mm thick rubber foam seat, wooden arms rest on wooden support with cushioned back, etc complete As per drawing / design. (Basis price of upholstery not less than @ Rs 500/- metre & foam density 50 to 80 etc.) etc. complete As per drawing / design.	8.000	Per Seat		
34	SOFA SIDE TABLE(2'3"X1'3") :- Providing and fixing tables of specified sizes to be made up of 18 mm thk. BWP grade plywood & 1.0mm thk. laminate finish etc. complete As per drawing / design.	4.000	No.		
35	Centre Table (SIZE - 450x900 mm) :- Providing and placing Centre Table in rectangle shape made of 18 mm thk. BWP grade plywood and 1.0mm thick Laminates finish as per approved shade etc. complete As per drawing / design.	2.000	No.		
36	ACRYLIC NOTICE PANEL size (6'x1'6") (Back lit) :- Providing and fixing Acrylic sandwich Display board with Two 6mm th. Acrylic sheets fixed to the wall with 25mm Dia Stud including LED strip. The cost is inclusive of all materials, labour etc complete As per drawing / design.	3.000	No.		
37	SBI MONO(3'X2') (As per Architect/Bank incharge)	1.000	No.		
38	BRANDING OVER GLASS (As per Architect/Bank incharge)	192.000	Sq.ft.		

39	BRANDING NEAR LIFT AND STAIRCASE (As per Architect/Bank incharge)	1.000	No.		
40	MOTIVATIONAL POSTER IN TRAINING AND MEETING ROOM (As per Architect/Bank incharge)	3.000	No.		
41	S.S.DUST BIN	35.000	No.		
42	COMPLAINT BOX	1.000	No.		
43	INAUGURATION PLATE WITH CURTAIN (As per Architect/Bank incharge)	1.000	No.		
44	Rolling Shutter Boxing :- Providing and fixing at Rolling Shutter Wooden Boxing made by 18mm thick BWP grade plywood to be finished in 1.0 mm thk. Laminate, etc. complete As per drawing / design.	128.970	Sq.ft.		
45	P/f Foot Mat (As per Architect/Bank incharge)				
	Size 2400x1000	1.000	No.		
	Size 1000x600	1.000	No.		
46	P/F Toilet Paper Holder SS. Finish jaquar/ kohler or equivalent	4.000	No.		
47	MIRROR :- Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with wooden frame of approved make and shape with 12mm thick plywood backing, etc. complete As per drawing / design.				
	Ladies Toilet Wash basin	21.000	Sq.ft.		
	Gents Toilet Wash basin	34.510	Sq.ft.		
48	MODULAR UNDER COUNTER STORAGE SYSTEM FOR PANTRY :- Modular under counter storage system with marble partitions and ebco or equivalent make drawer chanel hinges , 304 grad ss baskets italian/ hettich/ hafele or equivalent brand door nobs / handles under counter storage shutter made of 18mm thk. BWP grade plywood with 6mm thk.comm. ply backing all internal and outer side surfaces are finished with 1.0mm th. laminate complete As per drawing / design.	15.960	Sq.ft.		

49	WOODEN FLOORING IN TRAINING HALL:- Providing and fixing wooden raised platform in training Hall with a base structure of wooden supports as per drawing and finished with Wooden Flooring. (AC4) thickness 1214x192x8mm made from High Density wood fiber Board with protective over lay of anti abrasive non fading U.V. resistance scratches resistant, Heat resistant surface including melamine impregnated decorative film have additional film that increase impact resistance surface hardness and indentation resistance, Panels are tongue & groove system fixed with poly-vinyl acetate glue and placed over PE sheet alkali resistant polyethylene film as a firm layer to protect the panel for moisture and second layer is hush factor 2mm thick specially engineered to absorb the noise and provides cushioning for walking comfort and take care of small undulation of sub-floor. Colour & pattern with equivalent decorative wooden skirting of size 60mm fixed on paneling of wall by head less nails to cover expansion gap on edges and equivalent wooden profile used for connecting the Armstrong wooden flooring to adjoining sub floor etc. as approved by Architect.	573.750	Sq.ft.		
	TOTAL – A		Total		

* THE RATES QUOTED ABOVE ARE EXCLUSIVE OF TAXES.

Total(InWords)

Rupees _____

Seal & Signature of the Contractor.

LIST OF MATERIALS OF APPROVED MAKES/BRAND(FURNITURE, INTERIOR & ALLIED CIVIL WORKS)

- 1.Plastered walls and False ceiling etc. – Premium Quality Acrylic Emulsion Paints of Asian / Nerolac / ICI / Berger
2. Enamel Paint:- Asian / Nerolac / ICI / Berger
- 3 Float Glass – Saint Gobain / MODIGUARD / AIS
- 4 Aluminium sections INDAL / JINDAL / HINDALCO
- 5 Block board (BWP) shall be 19/25 mm thick of CENTURY / GREEN or equivalent
- 6 Ply wood (BWP) shall be of CENTURY / GREEN or equivalent
- 7 Screws shall be of NETTLEFOLD brand / (GKW) / STAG.
- 8 Adhesive : FEVICOL
- 9 Multipurpose locks shall be of GODREJ / DOORSET / EBCO.
- 10 Sliding fittings, drawer slides handles etc. shall be of Ebco.
- 11 Floor springs – DORMA CROWN / GODREJ / approved equivalent as per BOQ.
12. Door Closer – DORMA CROWN / GODREJ / approved equivalent as per BOQ.
13. Mortice lock handles – GODREJ, EFFICIENT GADGETS, DORMA / HETTICH
14. Teak wood – CP TEAK
- 15 Hard wood – Seasoned Wood as per specifications and relevant standards.
16. Handles for drawers and storages – Efficient Gadgets / Flora / Parmar / Godrej
17. Door locks - 2 Lever Mortice 65mm or as required – GODREJ / EFFICIENT GADGETS
18. For cupboards, Drawers – 6 Lever drawer / as desired –GODREJ / EFFICIENT
19. Laminate – CENTURY / FORMICA / Merino / Vir.
20. Gypsum board – SAINT GOBAIN or equivalent.
21. Suspended Ceiling-ARMSTRONG / SAINT GOBAIN approved equivalent
22. Vertical Blinds- Vista Levelor-Classic / MAC / approved equivalent

BOQ for the Electric Work of Bhopal Branch

	PART B - ELECTRICAL WORK				
Sl.No	DESCRIPTION OF WORK	QTY	Unit	Rate	AMOUNT
	Internal wiring				
1	WIRING TO POINTS				
	Point wiring with 1100 V grade 3 nos. single core/Multi strand 1.5 sq.mm. (1 for phase, 1 (black colour) for common neutral by looping method and 1 (green colour) for common earth by looping method) PVC insulated flexible FRLS copper conductor cable (IS:694) through stove enameled rigid MS conduit pipe with accessories like bend / junction box in concealed manner on surface above false ceiling or concealed by chase cutting on wall from light & fan switch board to light, fan & 6A socket outlet on the same switch board or separately mounted switch board. The work includes supply and fixing of all materials as specified make modular type 6A switch for each light and fan point, 6A 2/3 pin shuttered socket outlet with switch, 3 plate ceiling rose / angle or batten holder etc. as required. The point Wiring Include Circuit Wiring From Main Db to Switch Board with 2x2.5 +1.5 Sqmm Copper wire through through stove enameled rigid MS conduit pipe (not more than two circuit in a conduit), maintaining the colour code. Circuite line for lighting switch board ,6Amps plug board are to be drawn from lighting DB to Lighting board & plug point board. Maximum 2Nos lighting board & 03 Nos.6Amps connected from one circuite.				
a)	Lighting point complete with modular type switch, plate, G.I. conceal switch box.				
I	Point - 1 Light point control by 01 switch.	23	Each		
Ii	Point - 2 Light point control by 01 switch.	15	Each		
Iii	Point - 3 Light point control by 01 switch.	30	Each		
Iv	Point - 4 Light point control by 01 switch.	15	Each		
b)	Exhaust fan point same as item No. 1 a complete with modular type switch plate & G.I. conceal box & 3 pin ceiling rose.	4	Each		
c)	6A 2/3-pin socket & 6A switch point on same switch board	11	Pts.		

d)	Call bell point same as as bove complete with modular type push switch,plate & G.I. conceal box with buzzer type bell.	4	Each		
e)	Wall fan point same as item No. 1acomplete with modular type switch plate & G.I. conceal box & 3 pin ceiling rose with regulator.	15	Each		
f)	6A 2/3-pin socket & 6A switch point on seprate switch board	61	Pts.		
2	Raw Socket Points Supply, laying & Installation of following Raw power switch socket points on skirting/ walls for Table Lamps/ General purpose use by using 3C X 2.5 Sq.mm copper conductor PVC FR sheathed black color flexible cable pulled through already laid floor raceways/ conduits and taken up to the position marked, using PVC rigid/ flexible conduits run concealed within walls/ partitions/ work stations etc, with concealed MS box flush to the surface, front Plate etc & hardware as required. (Not more than five socket points will be served by one circuit from Lighting DB) Rate is Inclusive of all Riser PVC/ Flexible conduits as required.				
A	16A socket & 16A switch point.	8	Pts.		
B	Supplying, providing, fixing complete table top 125mmx125mmx60mm aluminum super slim base box designed pop up box with positive earthing terminal having two 6/16A socket	2	Each		
	COMPUTER SOCKET POINT: - (thru UPS supply only)				
3	Computer socket outlet cluster point wiring with 1100 V grade 3 nos. single core (1 for earth, green color) 1.5 sq.mm. PVC insulated flexible FRLS copper conductor cable conforming to IS : 694 through suitable size rigid PVC.conduit (ISI mark embossed on conduit surface) and conduit accessories partly through concealed in wall, embedded in floor, partly on surface above false ceiling and partly through partition or through flexible conduit from CDB to computer socket outlet cluster as detailed below and upto connection of 2 nos. socket clusters in 1 (one) circuit connecting by looping method. The work includes supply and fixing of socket outlet clusters components (Legrand/North - west/Novar make) as detailed below.				

	Each computer socket outlet cluster comprising the following :				
	3 nos. : 6A 2/3 pin modular type shuttered socket				
	1nos. : 6A modular type controlling switch				
	1 no. : Front cover of suitable size				
	1 no. : Mounting box of suitable size				
	Note:- All socket outlet cluster is thru UPS DB. The Control switch is to be located in another board above table. The supply socket is located on another board below table.	64	Set		
	Sub Total Internal wiring = A				
	CIRCUIT WIRING :				
4	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core/Multi strand cable in surface/ recessed medium class PVC conduit				
a	2 X 2.5 sq. mm + 1 X 1.5 sq. mm earth wire in 20 mm PVC conduit	800	Metre		
b	4 X 2.5 sq. mm + 1 X 1.5 sq. mm earth wire in 25 mm PVC conduit	300	Metre		
	Sub Total CIRCUIT wiring = B				
	Fitting and Fixtures				
	Supply and installation of light fittings/ fans/exhaust fans				
5	Supply and fixing of recessed mounting type LED light fixture, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. PDC Aluminum white powder coated Housing with glare free diffused polycarbonate cover. White Polycarbonate Flat bezel ring and High transmittance PMMA diffuser & heavy duty spring latches for installing on to Modular / Gypsum False Ceilings complete with external Driver CCT – 6000k / 4000K / 3000K CRI > 80				
a	Make-Philips Lighting 15 W circular module no.DN192BLED9S-4000 PSU WH S1/DN192BLED9S-6000 PSU WH S1 or equivalent	223	Each		

b	1 W high lighter	10	Each		
6	Supply & Installation of single color (warm white light / any other				
	approved color) water proof flexible LED strip light including required rated driver / power supply in multiples of 1 Rmtr 5 w/mt asapproved by the architect / consultant / client along with all necessary hardware & accessories, etc. complete as required	50	Meter		
7	Supply and Installing Wall fan copper wound motor including blades,down rod,condensor and all accessories but with out regulator complete	10	Each		
8	Supply and Installing 200mm sweep fresh air fan copper wound motor including FRP blades,louvers,condensor and all accessories complete	4	Each		
	Sub Total Fitting and Fixtures = C				
	MEDIUM VOLTAGE SWITCHGEARS & DISTRIBUTION BOARDS				
9	Mains Switch Fuse Unit Supply, Installation & Commissioning 160A 3-Pole MCCB 36kA with R-Y-B LED indicating lamps and fuses Rotary Handle, Neutral Link etc, in Sheet Steel enclosure of L&T/ Siemens/ABB make with all fixing accessories like MS L-angle frame with Anchor Fastner, Nut & Bolt arrangement etc as required in meter room/ panel room & Cableextended box if required.	1	Nos.		

10	<p>As Built Distribution Panels & Boards. Supply, Installation & Commissioning of following Main Distribution Panel as per specification enclosed.</p> <p>System: 415V AC, 3PH, 50Hz, Fault Level 50KA for 1-sec. Construction: Free Standing Floor/ Wall Mounting, Non-rawout & Compartmentalized. Fabrication: Base: 5 X 75mm Fabricated Channel Frame: 14 SWG Thick CRCA Sheet Steel. Covers/ Doors: 16 swg thick CRCA Sheet Steel. Degree Of Protection: IP-42. Painting: Two coats of Primer & finish with Epoxy paint. Based Paint Shade: External/ Internal: Siemens Gray 7032, Semi Glossy. Base Channel: Black. Cable Entry: Bottom/ Top 3mm Thick CRCA Sheet Steel Detachable Gland plate. Busbars: Electrolytic grade Cu Busbars supported on SMC supports. The Busbar system is suitable for 415V, 3PH, 50Hz with fault withstanding capacity of 50KA for 1s. Heat shrinkable PVC sleeves & color code for phase identification provided. Earth Busbar: 1 X 25 X 6mm Cu. Minimum Busbar Clearances: Phase to Phase: 25.4mm Phase to Neutral: 25.4mm Phase to Ground: 25.4mm Neutral to Ground: 19.4mm Live Part to Ground: 19.4mm Wiring: The wiring will be carried out with 650/1100V grade PVC insulated stranded copper conductor. Control Circuit: 1.5Smm C.T. Circuit: 2.5Smm Switch Fuse Unit/ MCB/MCCB: 32A = 6Smm, 63A = 16Smm, 125A = 35Smm, 250A = 40 X 5 Cu Bus - Bar</p>				
	Main Distribution Panel Incomer:				
i)	1 no. of 160 A MCCB 3-Pole with 36KA Breaking capacity with Rotary Handle.				
ii)	R-Y-B Phase LED type Signal Lamps Teknik, with 0.5A protection MCBs				
iii)	100 X 100mm Danger Notice Board in English & Hindi.				
iv)	Digital Voltmere & Ammeter of HPL, L&T, Meco or equivalent with CT's Class 1.0, 15 VA, & required ratio.				
	Outgoing:				

i)	1 nos. of 100 A MCCB of 10 kA Breaking Capacity				
ii)	1 nos. of 63 A MCCB of 10 kA Breaking Capacity				
iii)	3 no. of 40 A FP MCBs of 10KA breaking capacity for Computer cluster and Power				
iv)	Capacitors Siemens/ Mehar/ Asian make 20, 15, 10, 5, 2 & 1 KVAR 415 Volts 50 Hz. AC 3 Phase Delta connected Double Dielectric Metallised Polypropylene Capacitors for 6 stages with Discharge Resistors & series Inductor Coil.				
v)	6 nos. Capacitor duty Contractors for 6 nos. of stages with HRC fuses with base as backup fuses & 2A HRC fuses for contactor coil.				
vi)	6 nos. of LED type Red indicating lamps for ON stage indication				
vii)	Push type Red & Green switches for making stages ON/ OFF in Manual mode only. 1	1	Set		
	Distribution System.				
	Supply, Installation, Testing & Commissioning (S.I.T.C.) Of All Items described below should be Factory Manufactured & Tested & ISI marked. Proposed location & route should be as per the drawing. However, if any obstruction is encountered at site suitable modification may be made as per site condition. After completion of work the contractor must supply 3 copies of "As-Built" drawing of actual route & location of items . All UPS & Raw Power points to be Marked as U1,U2 -----& R.P.I, R.P.2 - etc on each work-Station/Desk etc. Similarly load/points connected on Each M.C.B. to be indicated with a chart pasted inside the cover of each Distribution Board. Insulation testing of Wiring with Meggar & Testing of E.L.C.B. with Test lamp should be carried out before charging system & Insulation test report as well as RCCB/RCBO test report to be submitted with the Bill. LOAD should be equally BALANCED on 3 PHASES. All D.B.'s and UPS + Raw power Points should have an earth wire Connection in their socket earth terminal.				
	Computer cluster				

11	S.I.T.C. of Factory Manufactured Single/ 3 Phase & Neutral Double Door Distribution board made out of 16 SWG sheet steel enclosure with cutouts for operating MCB/MCCB/RCCB etc. knobs & consisting of Phase, Neutral & E arth Busbars with tapped holes, phase barriers, & covers with removable plates on Top & bottom for Incoming & Outgoing Cables . D.B.'s shall be flush mounting type for both single & three phase.				
	S.I.T.C. of 3 phase 12 way(8+36) Double Door Distribution Board with following M.C.B./M.C.C.B./RCCB & cable end boxes at Input & Output.				
a	63 Amp Triple Pole & Neutral (TPN)- 1No as incomer				
b	1 nos. of 63 A RCCB of 10 kA Breaking Capacity				
c	S.P. 16 Amp MCB -32 No for Computer cluster	1	Set		
	Light and Fan				
12	S.I.T.C. of Factory Manufactured Single/ 3 Phase & Neutral Double Door Distribution board made out of 16 SWG sheet steel enclosure with cutouts for operating MCB/MCCB/RCCB etc. knobs & consisting of Phase, Neutral & E arth Busbars with tapped holes, phase barriers, & covers with removable plates on Top & bottom for Incoming & Outgoing Cables . D.B.'s shall be flush mounting type for both single & three phase.				
	S.I.T.C. of 3 phase 8 way (8+24) Double Door Distribution Board with following M.C.B./M.C.C.B./RCCB & cable end boxes at Input & Output.				
a	40 Amp Triple Pole & Neutral (TPN)- 1No as incomer				
b	1 nos. of 40 A RCCB of 10 kA Breaking Capacity				
c	S.P. 6 Amp MCB -20 No for Light , Fan and raw socket point	2	Set		
	HVAC				
13	S.I.T.C. of Factory Manufactured Single/ 3 Phase & Neutral Double Door Distribution board made out of 16 SWG sheet steel enclosure with cutouts for operating MCB/MCCB/RCCB etc. knobs & consisting of Phase, Neutral & E arth Busbars with tapped holes, phase barriers, & covers with removable plates on Top & bottom for Incoming & Outgoing Cables . D.B.'s shall be flush mounting				

	type for both single & three phase.				
	S.I.T.C. of 3 phase 12 way (8+ 24) Double Door Distribution Board with following M.C.B./M.C.C.B./RCCB & cable end boxes at Input & Output.				
a	100 Amp Triple Pole & Neutral (TPN)- 1No as incomer				
b	4 pole 100 Amps, RCCB(In accordance with IS 12640-1 & IEC 61008-1) 240/415, 50Hz with 10kA short circuit withstand capacity 30 mA sensitivity				
c	S.P. 16 Amp MCB -8 No				
d	S.P. 20 Amp MCB -11 No	1	Set		
	Power				
14	S.I.T.C. of Factory Manufactured Single/ 3 Phase & Neutral Double Door Distribution board made out of 16 SWG sheet steel enclosure with cutouts for operating MCB/MCCB/RCCB etc. knobs & consisting of Phase, Neutral & E arth Busbars with tapped holes, phase barriers, & covers with removable plates on Top & bottom for Incoming & Outgoing Cables . D.B.'s shall be flush mounting type for both single & three phase. S.I.T.C. of 3 phase 4 way (4+12) Double Door Distribution Board with following M.C.B./M.C.C.B./RCCB & cable end boxes at Input & Output.				
a	40 Amp Triple Pole & Neutral (TPN)- 1No as incomer				
b	1 nos. of 40A RCCB of 10 kA Breaking Capacity				
c	S.P. 16 Amp MCB -8 No	1	Set		
	Distrubition caba				
15	Electrical Work: S.I.T.C. of I.S.I, marked 1.1 KV grade PVC armoured Aluminum cable to be laid in Underground trench/On wall/above false ceiling etc complete with all conduit accessories like GI saddle at every 600mm & sutable lugs or other connecting arrangement complete as directed by client				
a	From Pole to meter and meter to floor panel				
	4 C x 70 Sq.mm	70	RM		

16	Electrical Work: S.I.T.C. of I.S.I, marked 1.1 KV grade PVC unarmoured Aluminum cable to be laid in Underground trench/On wall/above false ceiling etc complete with all conduit accessories like GI saddle at every 600mm & suitable lugs or other connecting arrangement complete as directed by client				
a	From floor panel To UPS for computer cluster				
	4 C x 25 Sq.mm	20	RM		
b	From floor panel To Light fan DB through or direct UPS				
	4 C x 10 Sq.mm	20	RM		
c	From floor panel To Raw 6A socket DB through or direct UPS				
	4 C x 10 Sq.mm	20	RM		
d	From floor panel To Power 16A socket DB through or direct UPS				
	4 C x 10 Sq.mm	20	RM		
e	From floor panel To HVAC power DB				
	4 C x 50 Sq.mm	50	RM		
	Sub Total MEDIUM VOLTAGE SWITCHGEARS & DISTRIBUTION BOARDS = D				
	Earthing				
17	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	2	Set		
18	Providing and fixing 25 mm X 5 mm G.I. strip from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	100	Metre		
	Sub Total Earthing = E				
	Total (A+B+C+D+E)				

* THE RATES QUOTED ABOVE ARE EXCLUSIVE OF TAXES.

Total(InWords)

Rupees _____

Seal & Signature of the Contractor.

IMPORTANT NOTE:

Successful/L1 contractor has to strictly use only Approved Make Of materials. Final As Built CAD Drawings (3 sets) with Measurement Sheets (D.B. To Each Switch-Board+ D.B. To Each A.C. + D.B. to Each UPS & Raw P.P. Points etc and clearly showing Conduit routes for Lighting, UPS & Raw + LAN cabling and indicating the points looped on one ckt.+ Marking of UPS and RAW Pts on each Work-Station and Pasting of Chart in each D.B. indicating the Ckt. have to be enclosed with Final Bill. All above requirements are MANDATORY without which FINAL Bill will not be processed. PAYMENT Will be made as per Actual Measurements for which MEASUREMENT SHEET IS ESSENTIAL. No EXTRA ITEMS To be Executed Without Prior INTIMATION/ APPROVAL.

LIST OF APPROVED MATERIALS

Sr.No	Description	Approved makes
1	PVC Conduit	Precision/ Universal/ VIP
2	Ceiling Junction Boxes	Amar/Home lite
3	Wires & cables	Havells/R.R./Finolex/Polycab
4	Modular Switches,Sockets etc	M.K./Legrand/Havells/ Elleys
5	Lighting Fixtures	Philips/Wipro/Crompton/Havells/Polycab/SYSKA
6	M.C.B./RCCB/RCBO etc	Legrand/Indo-Asian/Havells/Hagger/L&T/Neptune
7	Distribution Boards	Same As Above
8	MCCB	A.B.B./Schneider/Legrand/Havells/Hagger
9	Change Over Switches	H.P.L./ A.B.B./Standard
10	End Termination accessories	Dowells/Usha/Brecco/Cosmos
11	Telephone Cables & accessoreies	Havells, Krone, Finolex,
12	Fans/Exhaust fans	Crompton/Bajaj/Havell

BOQ FOR FIRE ALARM SYSTEM

	PART C -FIRE ALARM SYSTEM				
Sl.No.	DESCRIPTION OF WORK	QTY	Unit	Rate	AMOUNT
1	Supply and installation, testing and commissioing of ionisation type smoke detectors to be mounted below false ceiling	25	each		
2	Supply, installation, testing and commissioing of response indicator	20	each		
3	Supply, installation, testing and commissioing of manual call point with break glass arrangement	3	each		
4	Supply, installation and termination of 2x1.5 Sqmm twisted FRLS armoured copper conductor cable approved by ETDC/TAC to be clamped neatly on ceiling/ wall/ partitions etc with GI clamps	900	mtr		
5	Supply, installation, testing and commissioing of heat detector				
	Rate of rise cum Fixed temperature	4	each		
6	Supply, installation, testing and commissioing of dual tone electronic hooter	1	each		
7	Supply, installation, testing and commissioing of 4-zone wall mounting type conventional fire alarm panel with battery unit, charging unit and other accessories	1	each		
8	Supply,installation and testing and commissioning of Auto Dialler system for the Fire Alarm System with tone and pulse switch 16X2 LCD display to send the pre recorded message of 40 to 60 Seconds	1	each		
9	Supply,installation and testing and commissioning of 2Kg capacity co2 type fire extinguishers	8	each		
10	Supply,installation and testing and commissioning of 4.5Kg capacity ABC type fire extinguishers	2	each		
	Total Value				

List of approved Makes:

1	Fire Extinguisher	a	Minimax
		b	Ceasefire
2	Fire, Smoke Ditector, sector pannel etc	a	L&T
		b	Philips
		c	Agni
		d	Minimax

BOQ FOR AIR CONDITIONING WORKS AT BHOPAL BRANCH

	PART D - VRF SYSTEMS				
S.No	Description	Quantity	Unit	Rate	Amount
PART 1	EQUIPMENT				
	Supply, Installation, Testing and commissioning including the transport and lifting and complete structural frame work plat forms as per site conditions. of new factory supplied air cooled Variable Refrigerant Flow System. Supply of variable Refrigerant Flow modular type airconditioning system complete with indoor & outdoor units with individual corded controller as per the following capacities of the IDU and ODU.				
	VRV				
1	Outdoor Units				
	Modular type outdoor units equipped with highly efficient scroll compressors with all inverter type compressor(s) only, special acryl precoated heat exchanger, low noise condenser fan, pre coated fin type heat exchangers. The outdoor and indoor units shall be integrated with special super wiring system with a central monitoring remote controller into one common wiring. All refnet piping system shall be imported. Refrigerant should be R410A. All structural frame work platforms required shall be of HVAC vendor as per site conditions. Including stater panel, oil recovery system,Suction Filter Valve with dry Core at the outdoor unit with Handvalve,Scanner Relay to prevent phase reversal, voltage fluctuation,etc. and other fittings and accessories and all other item required to complete the job.				
	16HP or more to have at least 12.5 TR capacity	3	Nos		
2	Indoor Units				
A	Supplying, installation, testing & commissioning in door unit of 1 TR Air handling High wall type compatasble with VRF outdoor unit complete in all respects,	4	Nos.		

B	Supplying, installation, testing & commissioning in door unit of 1.66 TR Air handling High wall type compatasble with VRF outdoor unit complete in all respects,	5	Nos.		
C	Supplying, installation, testing & commissioning in door unit of 2.0 TR Air handling Ceiling-Mounted Cassette/compact cassette compatasble with VRF outdoor unit complete in all respects	8	Nos.		
D	Supplying, installation, testing & commissioning in door unit of 3.33 TR Air handling Ceiling-Mounted Cassette /compact cassette compatasble with VRF outdoor unit complete in all respects	2	Nos.		
3	Non VRV for server room				
A	Supplying, installation, testing & commissioning split air conditioning unit comparing of out door unit with evaporator, condenser, propeller fan and indoor unit with fan, cooling coil, filter, enclosed in a decorated casing, inter connecting tubing, duly charged with R-22 refrigerant remote control, necessary cabling etc. complete:				
	Non-decutable, vertical, floor/ceiling mounted type with reciprocating, hermetically sealed compressor, suitable on 1 ph, 50, Hz, 230 V. AC electric supply At least 3 star energy rating				
i)	Non-decutable unit of 1.5 TR Air handling High wall type	1	Nos.		
PART 2	ANCILLARY WORKS				
4	Refrigerant Piping				
	Supplying, Installation, testing and commissioning of All refrigerant piping between indoor & outdoor units duly insulated with nitrile rubber with factory cladded Aluminium sheet as per specifications. All piping inside the room shall be properly supported at 50 cm difference with 6 mm dia GI Hanging rod and exposed piping shall be properly supported in cable tray. All piping shall be pressure tested for 1.5 times the working pressure.				

	6.35 - R410A to 41.3 - R410A Suitable size with following insulation as per system requirement including Supplying, Installation, testing and commissioning of Special Refrigerant Y joints for VRF System as per site requirement				
	a 41.3 mm with 19 mm thick insulation				
	b 34.92 mm with 19 mm thick insulation				
	c 28.6 mm with 13 mm thick tubular insulation [[1 1/8]				
	d 22.2 mm with 13 mm thick tubular insulation [7/8]				
	e 19.1 mm with 13 mm thick tubular insulation [3/4]				
	f 15.9 mm with 10 mm thick tubular insulation [5/8]				
	g 12.7 mm with 10 mm thick tubular insulation [1/2]				
	h 9.5 mm with 8 mm thick tubular insulation [3/8]				
	i 6.4 mm with 8 mm thick tubular insulation [1/4]	200	Rmt		
5	Drain Piping				
	CPVC heavy class drain piping for SPLIT UNITS and Cassette type units for the following diameters of the pipes. The pipes shall be insulated with 6mm thick nitrile rubber supported at 50 cm difference with 6 mm dia GI Hanging rod				
A	25 mm	80	Rmt		
B	32 mm	20	Rmt		
6	Gas Charging With R410 Gas	60	kg		
	Electrical Cabling				
7	Supplying & fixing of approved make Industrial type metal plug & socket DBs (without MCB) SPN sheet encloser (dust protected) inclusive of 2 pole and earth metal plug and socket and space to incorporate SP MCB complete as per specification as required.				
	Control Cabling PVC insulated copper conductor control cables				
A	2 C X 6 sqmm, as per relevant IS	150	RMT		
B	2 C X 1.5 sqmm, as per relevant IS	450	RMT		

8	All civil works pertaining to Air-conditioning like breaking, making, painting of walls, glass etc. as required as per site conditions.	21	Each		
	Note 1: Catalogues of all equipments shall be enclosed with Compressor rating charts.				
	Note 2: Incoming Power supply near indoor unit will be provided by other agencies.				
	Note 3: Taxes to be included in the price of equipments /accessories...				
PART 3	ELECTRICAL CABLING				
9	Electrical Work: (PVC armoured al.cables)				
A	4 C x 50 Sq.mm (cu)	50	RM		
	HVAC				
10	Supplying of ISI Marked and approved make of Moulded Case Circuit Breaker (MCCB) Micro-Processor Release (current setting for overload & short circuit) suitable for 3 phase & Neutral, 3 pole, 50 Hz, 415 Volts, AC supply with respective interrupting capacity (KA) at 415 Volts cited against their range standard conforming to IS – 8828 MCCB with Breaking Capacity 25 KA at 415 V 40 to 100 Amps 3 Pole & Micro-Processor Release, over load 40% -100% x In. & short circuit 1.5 - 8 x Ir. adjustable Supplying of approved make, powder coated Metal Double Door Vertical TPN MCB DB IP 43 protection with provision for MCCB up to 160A TP/ FP 36kA as incomer and space for SP/TP MCBs as outgoing (without MCCB / MCBs) inclusive of bus bar & connections etc				
	4 way with MCCB Box (for AC)	3	Each		
	Total				

Note:-

1. Vendor to supply ACs of following make:Voltas/Daikin/O General.
2. Common drain pipes of Cassette / Split A.C.'s be terminated in any toilet nahni traps OR else be terminated from external wall up to ground.
3. Pl. encloses technical brochure of quoted A.C.'s.
4. As built layout drawing of Refrigerant & Drain Piping has to be attached with Final Bill.