RENOVATION OF SBI KHULTABAD BRANCH
ELECTRICAL WORKS : BOQ

PART A

SL NO.	DESCRIPTION OF WORK	QTY	UNIT	EST RATE
1	Labour charges for dismantling of existing MSB, cabling, wiring, fan and light fittings, switch boards and conduits including telephone and data lines etc. and arranging temporary light & fans, UPS/Raw Power, telephone connections etc. for the functioning of the Branch during the course of renovation work. All wiring has to be taken through conduits through ELCB. Safety of the Staff & customers has to be ensured by the tenderer during and after the renovation work. All wall openings for switch boards, wiring/cabling/light fittings has to be neatly sealed using cement mortar.	1	Job	
2	ENERGY METER CUBICLE /MSB : Fabrication, Supply, Installation, testing & Commissioning of enery Meter cubicle made out of 16 SWG CRCA sheet consisting of the following. (to be fixed outside the building). Separate chamber for energy meter (with fixing plate, view glass and holes with rubber gromets), Separate Lockable CT chamber big enough to accommodate 3 nos. CTs comfortably, Chamber for Cutouts & switchgear etc. and consisting of the following. 3 Nos.125 A Open Type cutout fuse with bakelite base and with 160A HRC fuses 25x6 mm Tinned copper earth bench with black sleeve mounted on FRP insulators with SS Nuts & bolts for giving connections. 4 Runs 25x6 mm Tinned Copper Busbar with heat shrinkable PVC sleeves for giving internal connections between C/O fuses, MCCB Input, Neutral Link etc with copper Lugs / SS Nuts&Bolts. 125 A, 25 kA (at 415 volts) , 4 Pole MCCB with operating handle - 1No. as Incomer Spreaders for all MCCB Connections and SS Nuts & Bolts, Rubber gromets for metal crossings of wires, door knobs with lock nuts etc. Mark ON & OFF direction, MCCB & Cut out fuse ratings, cable size, consumer No., Name of Bank etc.neatly using good quality stickers /Paint. Complete with all interconnections and powder coated painting. Note :- GA & Control Drawing of the panel shall be approved by the consultant before fabrication. (Panel shall be manufactured from CPRI approved manufacturer only.) All test certificates for Panel shall be submitted alongwith the delivery of Panel at site.	1	Job	
3	**MAINS CHANGE OVER** Supply and installation of 125A 4 Pole ON LOAD Change over switch with suitable metallic enclosure with cable entry box and powder coat painted and with 6 nos 2A SP MCB with 6 nos LED indicators for the identification of MSEDCL / DG Set 'ON' & neat marking thereof. (Separate chamber & door for COS chamber & Indicator + MCB Chamber). Use 1/1.5 Sq.mm rigid single core PVC insulated copper conductor for control wiring. Suitable metal supports shall be incorporated to guide/tie the control wiring and neat dressing thereof. All unused knock out holes/gaps shall be properly sealed.	1	No.	
4	MSB(VDB) : Supply, Installation, testing and commissioning 4 way VTPN MCCB DB 125A, 16/25kA (at 415 Volts), 4Pole MCCB with operating Handle- 1 No (Incomer - From 100A COS) 100A TP MCB with Operating Handle as out going - 2 Nos.(Non			

	essential and Essential DB) 63A, TP MCB with operating handle - 1 Nos. (APFC Panel) 10/16 SP MCB – 3 Nos. for control supply. Complete with all interconnections. The Panel should be provided with cable alley / cable entry box.	1	Set	
6	**MAIN SWITCH :** Supply and Installation of 125A 25/36kA 4 pole MCCB (with operating handle) and with suitable Metallic enclosure. The MCCB should be provided with spreaders at Input & Output Side with SS Nuts and Bolts. (Between MSB and SSB for Grund Floor) (To be installed near entrance/exit of banking hall)	1	Set	
7	SITC of 40A 4pole MCB with enclosure at entrance	1	Set	
8	APFC PANEL (20 KVAr) - Supply, Installation, Testing and Commissioning of Automatic Power Factor Control Panel (APFC Panel) including transport to site with proper required (PVC sheets / wooden frame) packing, store at site, erect in proper position of Sub-Main Electrical LT panel, floor mounted, front operated, dead back, totally enclosed, IP42, vermin proof, indoor, non-drawout, cubicle type power distribution panel fabricated out of 2mm thick CRCA sheet having gasketed hinged door on each cubicle, fully powder coated / enamel painted after seven tank treatment, incorporating horizontal and vertical sleeved copper / aluminium busbars complete with all internal wiring with suitable size approved make FR grade colour coded wires, rotary handle, spreaders, 3mm thick gland plate, hinged type door with neoprene gasket, danger board, two earthing lugs, cable chamber, etc. as required housing below mentioned switchgears, metering instruments and accessories :- Note :- GA & Control Drawing of the panel shall be approved by the consultant before fabrication. (Panel shall be manufactured from CPRI approved manufacturer only.) All test certificates for Panel shall be submitted alongwith the delivery of Panel at site. (Client / Consultant reserves the right to reject the Panel supplied without prior design approval / submission of required test certificates alongwith the delivery of Panel at site.) APFC PANEL - With inbuilt solid state automatic power factor correction arrangement having 3 CT Operated microprocessor based control Relay (12 stage) and contactor switching power circuit having a required capacity of 20 KVAR having capacitor bank in steps of [(1 x 10 KVAR) + (1 x 5 KVAR) + (1 x 3 KVAR) + (1 x 2 KVAR)+ (1 x 1 kVAr)], including main MCCB, MCB's, APFC relay, contactors, capacitors, indicating lamps, etc. complete with all necessary hardware & accessories as mentioned below :- INCOMER 1 No. 100A, 16/25kA 4Pole MCCB of approved make with built in over load (O/L), short circuit (S/C) protection. The Breaker shall be suitable for 415 Volts 50 Hz AC supply			

	Breaker shall be suitable for 415 Volts 50 Hz., AC supply. (Schneider / Hager / Legrand / Siemens / L&T make) BUSBARS 1 Set of 125A (25x6mm size) Amps uniformly rated, continuous duty, 415V AC, 3-Phase & Neutral electrolytic grade 99.95% Purity Tinned Copper bus-bars with colour coded heat sink sleeves supported on SMC type grip supports. The Horizontal / Vertical sections of the busbars should all be uniformly rated for 100 Amps. 1 Set of 25 x 3 mm copper busbars of high conductivity electrolytic quality shall be provided throught out the panel for its earthing. INSTRUMENTS 1 no. Multi Function Display (VIF)for Voltage,Current & Frequency (including CTs) 1 Set of phase indicating lamps, LED type, RYB. 6 Nos. of 2A 10kA C curve SP control MCB (VM & Indicators) 1 no. 3 CT Operated 12 stage microprocessor based digital type APFC relay (L&T) 1 set overvoltage, undervoltage, phase protection relay. 12 set On, Off LED type indication lamp OUTGOING 1 Nos. 40A, TP, D curve, MCB 1 Nos. 25A, TP, D curve, MCB 3 Nos. 16A, TP, D curve MCB 1 No. 1 kVAR MPP heavy duty capacitor with capacitor duty contactor 1 No. 2 kVAR MPP heavy duty capacitor with capacitor duty contactor 1 No. 3 kVAR MPP heavy duty capacitor with capacitor duty contactor (L&T) 1 No. 5 kVAR MPP heavy duty capacitor with capacitor duty contactor (L&T) 1 No. 10 kVAR MPP heavy duty capacitor with capacitor duty contactor (L&T) The panel shall be provided with required nos of louvers in the capacitor chamber for its cooling. Also required nos of ventillation fans with auto sensing thermostate shall be provided in the panel to improve capacitor life & ventilation fans. Note: 3 Nos. Sensing CT to be provided in the EB side at COS or E/M Cubicle. Full Set as above 415 Volts) TPN MCB set at 100A as Incomer - 1 No. 63A TP MCB	1	Set	
10	(C-Series) as out going – 2 no. (To AC ODU+Spare) 40A TP MCB (C-Series) as outgoing – 3 Nos. AC IDU DB, PDB & Spare), Dummy plates-9Nos The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
11	ESSENTIAL VDB -Supply, Installation, Testing and Commissioning of 8 Way Vertical TPN MCB DB consisting of the following and complete with all interconnections. 100A TPN MCB set at 80A as Incomer - 1 No. 63A TP MCB (C-Series) as out going - 2 nos. (UPS Input) 40A TP MCB (C-Series) as outgoing – 2			

	Nos. (LDB&, ATM) 20A SP MCB - 3 nos. (Name Board DB & Spares), Dummy Plates-6 Nos The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
12	**UPS INPUT Control** (UPS Room) : Supply and Installation of 8Way SPN MCB DB consisting of 63A 4 Pole MCB and 63A 100mA 4 Pole ELCB. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	2.00	Set	
13	**VRF AC LOCAL CONTROL** (Branch) : Supply and Installation of 8Way SPN MCB DB consisting of 63A 4 Pole MCB and 63A 100mA 4 Pole ELCB. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
14	**VRF AC ODU LOCAL CONTROL :** Supply and installation of 40A / 63A 4 Pole MCB Isolator in 'Sintex' make weather proof enclosure. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
15	Double door 4 way VERTICAL TPN MCB DB consisting of the following. 40A 4 pole MCB and separate 63A 4 Pole 100mA ELCB as Incomer - 1 No. 6A SP MCB (C-Series) as outgoings – 10 Nos. Dummy Plates – 2 Nos. The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
16	PDB : Supply, Installation, testing and commissioning of Double door 4 way VERTICAL TPN MCB DB consisting of the following. 40A 4 pole MCB and separate 40A 4 Pole 100mA ELCB as Incomer - 1 No. 10A SP MCB (C-Series) - 12 Nos. The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
17	LDB: Supply, Installation, testing and commissioning of Double door 6 way TPN MCB DB consisting of the following. 32A 4 Pole MCB (C-Series) and separate 40A, 30mA 4P ELCB as Incomer - 1 No. 6A 'C' Series SP MCB as out going - 18 Nos. The incoming copper conductors should be connected directly to the			

	DB Earth benches and the body should be earthed from DB earth bench or out side main earth bench if any. Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
18	UPS O/P DISTRIBUTION DB) Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof 12 way SPN MCB DB fixed on wall comprising the following: 63A DP MCB as Incomer - 1 No. 32A DP MCB- 3 Nos. (To computer DB-2 Nos & Spare) The DB Earth Bench and DB enclosure should be directly connected to the UPS Main Earth Bench using 4 Sq.mm PVC insulated copper wire with copper lugs, SS Nuts and bolts etc. Complete with all inter connections and neat marking/identification of DB Name, I/C Cable Size and outgoing MCBs using good quality stickers /paint.	1.00	Set	
19	COMPUTER DB: Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof 12 way SPN MCB DB fixed on wall comprising the following: 20A DP MCB as Incomer - 1 No. 6A SP MCB – 10 Nos. The DB Earth Bench and DB enclosure should be directly connected to the UPS Main Earth Bench using 4 Sq.mm PVC insulated copper wire with copper lugs, SS Nuts and bolts etc. Complete with all inter connections and neat marking/identification of DB Name, I/C Cable Size and outgoing MCBs using good quality stickers /paint.	2.00	Set	
20	**NAME BOARD DB:** Supply and installation Single door 6 or 8 Way SPN MCB DB with **16A DP MCB** and 25A 100mA ELCB as incomer and 3 Nos. 10A SP MCB (C-Series) as out goings for Name Board & Outside Lights Control of Branch (1 No.) and name Board and raw power lights of ATM (1No.)) The DB name and out going MCBs shall be marked neatly using good quality stickers / paint. Complete with all interconnections.	2	No.	
21	Supply and Installation of **L&T/Legrand** make 24 Hrs Electronic Timer with ready made enclosure for Branch & ATM Board Light lights.	1	No.	
23	**AC PLUG SOCKET**: Supply and installation of modular type 20/25A 3 Pin 3 module plug socket for Split AC Indoor unit	2	Nos.	
24	Supply and installation of 25/32A combined Power plug & 20/32A SP MCB in suitable PVC/metallic box.	2	No.	
25	Supply and installation of 16A combined Power plug & 10A SP MCB in suitable PVC/metallic box. for Kitchen Power plug. (corresponding MCB rating in PDB shall be 16A)	2	Nos.	
26	Supply and Installation of Surface mount single load 360 degree PIR Occupancy Sensor having a detection range of 7 x 7 Metre. (Approved Make:Shneider/Hager/Legrand)	8	Nos.	

27	**MAINS INDICATION** : Supply and Installation of 3 nos. **L & T make** LED Indicators (R, Y & B) on suitable ready made indicator/push button box controlled by 3 nos. 6A Modular switches including wiring by 4x1 Sq.mm PVC insulated copper wire through 20mm medium guage PVC conduit for a length not less than 15 meters. (to be installed in Banking Hall in a indirectly visible from customer area). The switches shall be placed separately at user accessible heights for safe operation.	1	LS	
28	**CABLE LAYING AND TERMINATIONS** Supply, laying and dressing of the following size of 1.1 KV grade PVC insulated armoured cable with aluminium conductor concealed or clamped on wall / ceiling / trench / cable traylamps if necessary.			
	i) 3.5 x 70 Sq.mm AYFY	40	Mtr.	
	ii) 3.5 x 50 Sq.mm AYFY	50	Mtr.	
	iv) 4 x 16 Sq.mm AYFY	40	Mtr.	
	v) 4 x10 Sq.mm AYFY	55	Mtr.	
	vi) 3 x 4 Sq.mm Armoured Copper Cable (UPS Output to Computer DB)	30	Mtr.	
	vii) 4 x 16 Sq.mm Armoured **Copper** Cable (From Non Essential SSB to VRF AC ODU thru VRF AC ON/OFF Control & ODU Local CONTROL)	60	Mtr.	
29	End termination of the following size of cables using flange type cable glands and heavy duty tinned aluminium crimping type cable sockets including gland earthing.			
	i) 3.5 x 70 Sq.mm AYFY	2	No.	
	ii) 3.5 x 50 Sq.mm AYFY	6	Nos.	
	vi) 4 x 16 Sq.mm AYFY / Copper Cable	2	Nos.	
	vii) 4 x 10 Sq.mm AYFY	6	Nos.	
30	**GI PLATE EARTHING:** Supply and providing GI Plate earthing as per IS 3043 with 600 x 600 x 6 mm GI plate with 25 mm dia B class G.I. pipe providing GI clamp at the top of the GI pipe test joint, filling around the GI Plate at the radius of 15cm with homogeneous mixture of charcoal, commol salt and river sand and the rest of the portion with excavated soil, providing brick work masonries, plastering, fixing cast iron/concrete cover of 30x30cm size etc. complete. **(USe only SS Nuts, Bolts and washers along with copper sockets for giving connections).**	6	Nos.	
31	**EARTH CONDUCTORS** Supply and laying of the following size of bare copper conductor along with above cables, for interconnections between panels, DBs, change over switches etc.and also for interconnections between earth pits.			
	i) 25 x 3mm Copper Strip (single run)	30.00	Mtr.	

	ii) No.10 SWG (rate for single run) (From MSB/SSB to Sub DBs) Total 2 runs 10SWG Cu for single and Independant DB Total 3 Runs 10 SWG Cu for two DBs placed nearby. (One run each to each DB and third one for interlinking) Total 4 Runs 10 SWG Cu for three or more DBs placed nearby. (One Run each to each DB and one for interlinking.	60	Mtr.	
32	Supply and laying of 2 Runs No.8 SWG bare copper conductor through 25mm Dia rigid PVC conduit (UPS Earthing)	50	Mtr.	
	WIRING FOR LIGHT, FAN, PLUG, SOCKETS ETC			
33	**POINT WIRING** Supply and wiring for light/fan/exhaust fan/calling bell/mirror lamp/bulk head light/wall fans etc.with 3 plate ceiling rose and by using **3 X 1.0 Sqmm FRLS** PVC insulated copper conductor wire in 20mm dia 1.5mm thick rigid PVC conduit, controlled by 6 Amps modular type switch with provisions for modular type ceiling fan regulator on separately fabricated MS Box. The M. S. box should be earthed properly. One way point. **(The switch boards shall be placed at user friendly locations for easy ON/OFF. Separate controls for EB/UPS lights for BM cabin and Cash Officer. All other counters including 1 row of customer area, 2 SBs + UPS SB on back side wall of counters. Separate SB near entrance & Visitors lounge).** The Raw Power & UPS Power Supply to Record Room / Compactor Room / Document room etc.shall be taken though 16A S/S (Raw Power) fixed outside the respective entrance and to be taken to SBs inside respective room using 6/16A plug Top with 3 core 2.5 Sq.mm flexible cable with braided flexible hose.	88	No.	
34	Same as above but for secondary points (looped points).	20	Nos.	
35	Same as item no.33 but for Two way control of light/fan points	2	Nos.	
36	Supply and fixing of Modular type 6A, 2/3 pin plug points controlled 6A modular switch mounted on suitable box. (on common switch board)	15	No.	
37	Same as above but for modular type 6A 2/3 pin plug points with 6A modular type switch in separate location. 3	10	No.	
38	Same as above but for 2 Nos. modular type 6 A 2/3 pin plug points with 2 nos. 6A modular type switch in separate location.	2	No.	
39	Same as above but for 2 Nos. modular type 6 A 2/3 pin plug points with 1 nos. 6A modular type switch in separate location.	1	Nos.	
40	Supply and fixing of modular type 6/16A, **3 module** plug socket with 16A modular type switch mounted on suitable Box.	10	No.	
41	Same as above but for 2 Nos. modular type 6/16A, **3 module** plug points with 2 nos. 16A modular type switch in separate location.3	3	Nos.	
42	**RAW POWER STATION :** Supply and installation of combined 6A, 3pin modular plug socket & 16A combined 3 module modular plug socket in suitable single PVC box.			

43	for raw power supply in counters, tables etc. 1 No. each in all tables including CM/AGM.	12	Nos.	
44	Supply and providing 6/16 A plug top and 1.5m long 3 core 2.5Sqmm flexible copper cable for taking incoming supply from 6/16A socket. (For Raw Power & UPS power supply to Strong room (Cash), Record Rooms and Water Pump. The 3 core cable shall be laid through braided hose (green) with supporting clamps placed inside strong room/locker room/record room for safe keeping of connecting cable.	2	Nos.	
45	**CIRCUIT WIRING** Supply and wiring wall / floor etc. / recessed / surface as per colour code with **3 runs** of 1.1KV grade**1.5 Sqmm FRLS** PVC insulated flexible copper wire for phase neutral and earth conductor with standard colour coding, through ISI marked 20mm dia rigid PVC conduit with all accessories. The rate includes the cost of complete wiring from switch box to switch box. (For lighting circuit & sub circuit & VRF IDU Wiring)	350	Mtr.	
46	Same as above but with **3 x 2.5** Sq.mm **FRLS** PVC Insulated copper wire. (UPS Circuit- Max 3 Computers per circuit, Raw Power Circuit- Max 3 tables per circuit, Name Board, Water pump, etc.)	250	Mtr.	
47	Same as above but with **3 x 4** Sq.mm **FRLS** PVC Insulated copper wire. (for 1Tonne AC and and for Name Boards if there are multiple Nameboards or extra ordinarily lengthy Name Boards)	75	Mtr.	
48	Same as above but with **5 x 16** Sq.mm **FRLS** PVC Insulated copper wire. (from UPS Input control to UPS)	10	Mtr.	
49	**UPS POWER STATIONS** Supply, install, test and commissioning of computer power stations with 4 Nos. 6A modular type two module 2/3 pin sockets mounted on suitable PVC / M.S.Box. The boxes should be fixed on wall / partitions (wooden) consealed or open as required at site. (2 Sets per table / counter including BM and cash officer)	14	No.	
50	Supply, install, test and commissioning of 16A modular type master switch with indicator with suitable PVC box for the **main control of UPS & Raw Power Station** in the Tables.	22	No.	
51	Supply and Marking of Panels, DBs, its switch and fuse ratings, cable size, location etc (Neat identification from top to extreme load end of both light and power distribution including Raw Power / UPS plug sockets and generator switch boards) using white / black paint and stencil. (free hand writing not allowed). Good quality stickers may also be used.	1	LS	
52	Supply and Charges for fixing wooden/steel framed laminated copies of Electrical Inspectorate/Goa State Electricity Department/Bank's Engineer/Architect approved as fitted drawings inside the UPS room.(Copy of final as fitted drawing approved by Electrical Inspectorate. both schematic and layout drawings.)	1	LS	
53	Charges for marking the telephone sockets and its correspondonding cable in the KRONE Box and preparation of single line diagram / layout of the whole telephone wiring showing location and numbering marked in the plan using AutoCAD, lamination and displaying it near the Telephone KRONE Box.	1	LS	

53	Service charge preparation of drawings, submission of completion report & getting order for statutory payments on behalf of bank, for additional power allocation, regularisation of additional connected load, shifting/replacement of suitable energy meter if necessary Electricity Department authorities.	1	LS	
54	**FLOOR RACEWAYS / CONDUITS / JUNCTION BOXES :** Supply and installation of following raceways / conduits / Junction Boxes in flooring.			
a.	80 x 40 mm Aluminium Raceways	40	Mtr.	
b.	25mm Rigid Heavy Guage PVC Conduit	50	Mtr.	
c.	200x200mm 14 SWG Junction Box with Stailess Steel Cover	8	Nos.	
55	**LIGHT FIXTURES & FANS**			
a.	Supply and Installation of Philips make recess mounting (gypsum board ceiling) 30 Watts LED FULL GLOW type square luminaire **Cat. No.RC380B G5 LED 36S-6500 PSE OD WH** Or OSRAM Luxpower (including fixing frame if any required)	20	Nos.	
b	Supply & installation of 1 X 13.5 Watts **Philips Greenperform sleek DN 296B LED 15S-6500 PSU WH led Down Light fitiing** with lamps and white reflector on false ceiling or Osram Luxstar 13/14Watts.(including UPS Lights)	30	Nos.	
c	Supply and Installation of **21 watts LED type** weather proof Yard lighting Luminaire with suitable angle **GI pipe support** for wall mounting. Philips GreenLine Smart Hi power **LED BRP 022**	6	Nos.	
d	Supply and Installation of 20 / 21W, 4 Feet LED Batten Light fitting with suitable mounting clips. **Philips Slimline / Panasonic Harrow AL**	22	Nos.	
e	Supply and installation of 6W LED Bulkhead **Philips Endura WT202W LED 6S**	4	Nos.	
f	Supply and providing IP 20 type, 4.8w / Metre LED Strip light (Blue Colour) with the corresponding driver of 5/10A including cost of driver unit. **Wipro Garnet make.**	80	Mtr.	
g	Supply & installation of Mains power operated electronic calling bell	1	No.	
h	Supply and installation of Angle batten holder with 9W Cool Day Light LED bulb on suitable PVC box (for toilets/UPS Room UPS light point)	4	Nos.	
i	Supply and installation of 9" size **medium duty** exhaust fan with metallic blade and body. (Toilets) Crompton / Almonard make. The cost shall be inclusive of cost of wall cutting, its re-plastering finishing and fabricated mettalic grill grouted to the outside wall.	4	Nos.	
j	Supply and installation of 12" size **Heavy duty** exhaust fan with metallic body in the new UPS Room with required wall opening and its finishing thereof. The cost shall be inclusive of cost of wall cutting, its re-plastering finishing and fabricated mettalic grill grouted to the outside wall. (UPS Room & Pantry)	1	No.	

k	Supply and installation of 1200mm Sweep BLDC ceiling fan (existing lengthy down rodes may be reused after ensuring its strength)	15	Nos.	
l	Supply and installation of 400 or 600mm Wall Fans with metallic leaf , body and grill.	0	Nos.	
m	Supply and Installation of step type 2 Module modular electronic regulator.	15	No.	
n	Supply and providing fan rod with painting (upto 1m length) (other than that supplied with fan and if required)	2	Nos.	
o	Supply and providing fan hook on ceiling.	2	No.	
p	Supply and providing **tinned** copper earth bench using 25 x 3 mm copper strip (25 Cm in length)	4	Nos.	
q	Supply and providing of Electrical Grade Rubber Mat (2m x 1m x 6mm) (for COS & UPS room)	2	Nos.	
r	Supply and fixing of wooden/steel framed Shock Treatment chart with glass of Standard size. (UPS room & Near VDB)	2	Nos.	
s	Supply and fixing of **LT DANGER BOARD** Sticker (Red back ground with white letters and size of Min. 15x10 Cms) (on All DBs & UPS Room Door)	10	Nos.	
	PART - B			
1	**TELEPHONE** Supply and wiring using 2 pair telephone cable 20mm PVC conduit from the EPABX to the individual points. One separate cable for each point. Number of cables in one conduit limited to 5.			
a.	2 pair telephone cabling **(0.50 Sq.mm**)	500	m	
b.	10 pair Armoured telephone cabling **(0.50 Sq.mm)**	40	m	
2	Supply and fixing of RJ 11 type modular telephone socket on suitable PVC / metal boxes.			
a.	Telephone socket - single (modular type)	12	No.	
b	Telephone socket - double (modular type)	2	No.	
3	Supply and installation of KRONE connector telephone junction box of 10 pair. (Outside)	1	Nos.	
4	Supply and installation of KRONE connector telephone junction box of 50 pair.(Inside)	1	Nos.	
	PART - C			
	MUSIC SYSTEM			
1	Supply and wiring as per colour code with 2.50Sqmm PVC insulated stranded copper wire 2 runs through ISI grade 20mm conduit for speakers.	90	m	
2	Supply and fixing 9W recessed type speakers on ceiling. **Ahuja CS-663T**	8	No.	
3	Supply and installation of Ahuja make 50W Amplifier with USB port. Model: **Ahuja DPA 770**	1	No.	
	GRAND TOTAL			

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