

PRICE BID (ONLINE)

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ELECTRICAL WORKS

STATE BANK OF INDIA

ADMINISTRATIVE OFFICE: KOZHIKODE

SBI KUNNAMANGALAM TOWN BRANCH

ELECTRICAL WORKS

PART A					
SL NO.	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMT.
1	ENERGY METER CUBICLE : Fabrication, Supply, Installation, testing & Commissioning of energy Meter cubicle made out of 16 SWG CRCA sheet consisting of the following. (to be fixed outside the building).	1	Set		
	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.125A Open Type cutout fuse with Bakelite base and with 80A HRC fuses				
	125A, 25/36kA (at 415 volts) , 4 Pole MCCB with operating handle - 1No.				
	25x3 mm Tinned copper earth bench with black sleeve mounted on FRP insulators with SS Nuts & bolts for giving connections.				
	4 Runs 16 Sq.mm PVC insulated copper wire for giving internal connections between C/O fuses, MCCB, 25x3 mm Tinned copper earth bench with black sleeve mounted on FRP insulators with SS Nuts & bolts for giving connections for Neutral etc with copper Lugs and SS Nuts&Bolts.				
	Spreader 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 Branch etc.neatly using good quality stickers /Paint.				
Complete with all interconnections and powder coated painting.					
2	SURGE PROTECTOR : Supply and installation of Class 1 + 2 Surge protection Device of OBO BETTERMAN make V25-B+C/3+NPE with manufacturer's own enclosure as per its schematic lay out to be installed between KSEB Incoming Power Supply in MSB and KSEB earth pits.	1	Set		

3	<p>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 KSEB / 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.</p>	1	No.		
4	<p>MSB: Fabrication, Supply, Installation, testing and commissioning of wall mounting type dust and vermin proof cubicle type switch board made out of 16 SWG CRCA sheet with powder coated painting (siemens grey) and consisting of</p> <p>125A, 25/36kA 4 Pole MCCB with extended rotary handle & suitable spreader terminals as Incomer - 1 No</p> <p>63A, 16 kA TP MCCB as outgoing -1 Nos. (To Non-Essential DB)</p> <p>63A, 16 kA TP MCCB as outgoing -1 Nos. (To Essential DB)</p> <p>32/40A ,3 Pole MCCB (C series)-3 nos (To ATM & Spare)</p> <p>25 x 6 mm Copper busbar for 3 phases and neutral.</p> <p>3 nos. LED (L & T) make indicators for RYB indication: 1 Set.</p> <p>Multifunction LCD Display for Voltage, Current and Frequency for 3 phase with suitable CTs - 1 No.</p> <p>2A SP MCB - 3 Nos. for control supply.</p> <p>Complete with all interconnections and neat marking/identification of DB Name, Cable Size, MCCB rating and outgoing MCCBs .</p>	1	No		
5	<p>Non-Essential DB : Supply, Installation, testing and commissioning of Double door 4 Way TPN MCCB Vertical DB consisting of the following.</p> <p>63A, 16/18 kA (at 415Volts) TP MCCB as Incomer - 1 No.</p> <p>32 / 40A, 3 Pole MCB (C-Series) - 4 Nos.(To LDB,PDB,AC DB & Spare)</p> <p>63A Copper busbar for 3 phases</p> <p>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.</p> <p>Complete with all inter connections and neat marking/identification of DB Name, Cable Size, MCCB rating and outgoing MCCBs .</p>	1	Set		
6	<p>MAIN SWITCH : Supply and Installation of 80 A 16/25 kA 4 pole MCCB (with operating handle) and with suitable Metallic enclosure, before SSB The MCCB should be provided with spreaders</p>	1	Set		

7	<p>Essential DB: Supply, Installation, testing and commissioning of Double door 4 way VTPN MCB DB consisting of the following. 63A, 100mA ELCB + MCB as Incomer - 1 No. 32A/40A (C Series) TP MCB as outgoing- 2 no (3 Phase UPS) 6A/A/10A//16A/20A/32A 'C' Series MCB as outgoing - 6 Nos. (To UPS, Board Light, Security Light, UPS Exhaust, DG Battery charger etc) Complete with all inter connections.</p>	1	Set		
8	<p>UPS VDB-Supply, Installation, Testing and Commissioning of 4 Way VTPN MCB DB consisting of the following and complete with all interconnections. 63A 4 Pole MCB and separate 63A/100mA 4 Pole ELCB as Incomer - 1 No. 40A TP MCB as outgoing - 2 no. 40A SP MCB (C-Series) as outgoing - 3 Nos. Dummy Plates- 3 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 outside 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.</p>	1	Set		
9	<p>AC VDB : Supply, Installation, testing and commissioning of Double door 4 way VERTICAL TPN MCB DB consisting of the following. 63A 4 pole MCB and separate 63A 4 Pole 100mA ELCB as Incomer - 1 No. 10/20A SP MCB C series as outgoing - 12 nos. (Cassette and Split AC) The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or outside 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.</p>	1	Set		
10	<p>PDB : Supply, Installation, testing and commissioning of Double door 4 way VERTICAL TPN MCB DB consisting of the following. 32/40A 4 pole MCB and separate 40A 4 Pole 100mA ELCB as Incomer - 1 No. 10A SP MCB (C-Series) - 12 Nos. Dummy Plates - 0 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 outside 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.</p>	1	Set		

11	<p>LDB: Supply, Installation, testing and commissioning of Double door 4 way TPN MCB DB consisting of the following.</p> <p>32/40A, 30mA 4P ELCB + MCB (Separate MCB & ELCB) as Incomer - 1 No.</p> <p>6A 'C' Series SP MCB as outgoing - 12 Nos.</p> <p>The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or outside main earth bench if any.</p> <p>Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.</p>	1	Set		
12	<p>ATM I/P DB: Supply, Installation, testing and commissioning of Double door 4 way Vertical TPN MCB DB consisting of the following.</p> <p>32/40A, 30mA 4P ELCB + MCB (Separate MCB & ELCB) as Incomer - 1 No.</p> <p>6A 'C' Series MCB as outgoing - 2 Nos.</p> <p>10A 'C' Series MCB as outgoing - 2 Nos.</p> <p>20A SP MCB (C-Series) as outgoing - 4 No. (for AC & UPS)</p> <p>Dummy-4 Nos.</p> <p>The incoming copper conductors should be connected directly to the DB Earth benches and the body should be earthed from DB earth bench or outside main earth bench if any.</p> <p>Complete with all inter connections and neat marking/identification of DB Name, Cable Size and outgoing MCBs using good quality stickers /paint.</p>	1	Set		
13	<p>UPS OUTPUT DB: Supply and installation of 20 /32 A DP MCB in suitable metallic enclosure for UPS Output. (The earth conductor from UPS and enclosure should be directly connected to UPS Earth bench only and joints inside enclosure should be avoided.)</p>	2	Nos.		
14	<p>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:</p> <p>40 A/DP MCB Isolator as Incomer - 1 No.</p> <p>25/40A, 30 mA 2 pole High Immunity ELCB as Incomer-1 No.</p> <p>6A / 10A SP MCB - 8 Nos.</p> <p>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.</p> <p>Complete with all inter connections and neat marking/identification of DB Name, I/C Cable Size and outgoing MCBs using good quality stickers /paint.</p>	2	Set		
15	<p>ATM UPS DB Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof 8 way SPN MCB DB fixed on wall comprising the following:</p> <p>40A/DP MCB as Incomer - 1 No.</p> <p>25/40A, 30 mA 2 pole High Immunity ELCB as Incomer-1 No.</p> <p>6A SP MCB - 3 Nos.</p> <p>Dummy-1 No.</p>	2	Set		

	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.				
16	UPS CHANGE OVER PANEL Supply erection testing and commissioning of 2 Nos. 40A rotary type change over switch in suitable metal box with 2 Nos. LED indicator for output identification. The Enclosure shall have a minimum size (LxWxD) of 30x20x12 CM with hinged doors and doorknobs with lock nuts. The Panel Name and the Selector Switch Positions shall be marked as UPS 1 -UPS 2-UPS 1 and indicators shall be marked as DB-1 & DB-2.	1	Set		
17	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 2 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.		
18	Supply and Installation of Protonics/L&T/Legrand make Dual Timer for Branch Board Light & Outside lights / ATM Board Light & Raw power lights.	2	No.		
19	Supply and Installation of Protonics/L&T/Legrand make single Timer for Branch Board Light & Outside lights / ATM Board Light & Raw power lights.	1	No		
20	AC LOCAL CONTROL unit inside the building : Supply and Installation of 63 A 4 Pole MCB and separate 63A, 100mA 4 Pole ELCB for the Local Control of AC ODU's.with suitable enclosure for the local control of the out door unit (Legrand/Siemens/L&T)	4	Nos		
21	AC LOCAL CONTROL for unit near outdoor unit : Supply and Installation of 63 A 4 Pole MCB Isolator with suitable enclosure(Syntex) for the local control of the out door unit (Legrand/Siemens/L&T)	4	Nos		
22	AC CONTROL: Supply and installation of modular type 25/32A Double Pole Two module switch with indicator. (Branch + ATM). All AC switches (excluding BM& ATM) should be placed together but mounted on separate boxes.	3	Nos.		
23	AC PLUG SOCKET: Supply and installation of modular type 20/25A 3 Pin 3 module plug socket for Split AC Indoor unit (BM-1, ATM-2)	3	Nos.		
24	Supply and installation of 25/32A combined Power plug & 20/32A SP MCB in suitable PVC/metallic box. for ATM UPS Input-2 Nos. & ATM AC stabiliser Input-1 No..	3	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)	1	No.		
26	DG ON/OFF STATION: Supply and installation of L & T Salzar make 6A Selector switch on suitable ready-made CI /FRP Box for DG ON /OFF control. "DG CONTROL", START & STOP Position etc shall be marked neatly using good quality stickers/paint.	1	Set		

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) 3.5x 50 Sq.mm AYFY(Meter Box to MSB via COS)	70	Mtr.		
	ii) 4 x 35 Sq.mm AYFY Cable (DG to COS)	90	Mtr.		
	ii) 4 x 25 Sq.mm AYFY Cable (MSB to UPS I/P DB)	90	Mtr.		
	iii) 4 x10 Sq.mm AYFY (LDB, PDB ,ATM DB & AC DB)	140	Mtr.		
29	iv) 3 x 1.5 Sq.mm Armoured Copper Control Cable (DG to remote ON/OFF Station and DG to PDB for Battery Charger Supply and ATM Name Board Control to ATM lollipop Board if required)	90	Mtr.		
	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 50 Sq.mm AYFY	4	Nos.		
	ii) 3.5 x 35 Sq.mm AYFY	2	Nos.		
	iii) 4 x 25 Sq.mm AYFY	4	Nos.		
	iv) 4 x 10 Sq.mm AYFY	6	Nos.		
30	v) 3 Core x1.5 Sq.mm armoured Copper control cable	6	Nos.		
	PIPE EARTHING: Supply and providing ISI pipe earthing as per IS 3043 with 2.5m long 40mm dia B class G.I. pipe providing GI clamp at the top of the GI pipe test joint, filling around the GI pipe at the radius of 15cm with homogeneous mixture of charcoal, common salt and river sand up to height of 2.5m from the bottom 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.		
	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) No.4 SWG (rate for single run) thru PVC Pipe (DG Earthing)	105	Mtr.		
	ii) No.10 SWG (rate for single run) (along with cables from MSB upto DB)	390	Mtr.		
31	Note: Two runs of No.10 SWG along power cable for each DB if DBs are placed at different locations. Total 2 runs of No.10 SWG with interlinking for 2 DBs placed nearby. Total 3 runs of No.10SWG with interlinking for 3 or 4 DBs placed nearby.				
	32	Supply and laying of 2 X No. 8 SWG copper conductor through 20mm PVC conduit for UPS earthing.	65	Mtr.	

33	Supply and laying of 2 X No. 10 SWG copper conductor through 20mm PVC conduit for SURGE PROTECTOR earthing.	25	Mtr.		
34	Supply and laying of 2 X No. 4 SWG copper conductor through 25mm PVC conduit from DG to earth bench near MSB along DG cable.	60	mtr.		
	<u>WIRING FOR LIGHT, FAN, PLUG, SOCKETS ETC</u>				
35	<u>POINT WIRING</u> 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 Strong Room and Locker Room shall be taken through 16A S/S (Raw Power) and 6A S/S (UPS Power) fixed outside the respective entrance and to be taken to SBs inside Strong Room & locker Room using 6/16A plug Top with 3 core 2.5 Sq.mm flexible cable. Similarly 16A S/S for record Rooms (Raw Power Only)				
a.	One point controlled by one switch (Primary points)	105	No.		
b	Same as above but looping from the primary points (Only for down lights for KSEB / UPS in banking hall/Manager Cabin/strong room antee room maximum three lights). looping length upto three meter	6	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)	8	No.		
37	Same as above but for modular type 6A 2/3 pin plug points with 6A modular type switch in separate location.	5	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. For TV /Token points	2	Nos.		
40	Supply and fixing of modular type 6/16A, 3 module plug socket with 16A modular type switch mounted on suitable Box.	6	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.(for Data Rack-1 No. & ATM-2 Nos.)	4	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.for raw power supply in counters, tables etc. 1 No. each in all counters and tables including BM & Cash Officer.	18	Nos.		
43	Same as above but with additional one 16A and one 6A Modular switch on the same box. (for cash Officer side table / back side for Note sorting machine and BM cabin ,SW cabin - above side table.	6	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.	5	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 & Outside lights indoor supply to VRF units)	850	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.)	770	Mtr.		
47	Same as above but with 3 x 4 Sq.mm FRLS PVC Insulated copper wire. (for 1.5/2Tonne AC and UPS I/P & O/P to COS to Computer DB and for Name Boards if there are multiple Nameboards or extra ordinarily lengthy Name Boards)	230	Mtr.		
48	Same as above but with 3 x 6 Sq.mm FRLS PVC Insulated copper wire. (for UPS I/P & O/P to COS to Computer DB (For higher KVA UPS)	45	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	Same as above but with additional 16A Modular switch on the same box. (for cash Officer side table / back side for Note sorting machine and BM cabin, SW - above side table.	5	Nos.		
51	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. (1 each for UPS Power and Raw Power per counter or table irrespective of number of power stations)	14	No.		
52	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 KSEB / 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		
53	Charges for fixing wooden/steel framed laminated copies of Electrical Inspectorate 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		

54	Charges for marking the telephone sockets and its corresponding 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 inside the Server Room/Manager Cabin.	1	LS		
55	Service charge for liaison work with KSEB authorities on behalf of bank for submission of completion report & getting order for statutory payments, shifting/replacement of suitable energy meter if necessary, with KSEB.	1	LS		
56	Charges for preparation of necessary drawings, payment of statutory fees (fees will be reimbursed by the Bank on production of receipts), submission to the Kerala State Electrical Inspectorate for getting the scheme approval and energisation sanction order for the electrical installation including the Diesel Generator Set .	1	LS		
57	<u>LIGHT FIXTURES & FANS</u>				
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 32 W 865 VS2 IN 3500 lm 6500 K (including fixing frame if any required)	38	Nos.		
b	Supply & installation of 1 X 13.5 Watts Philips Green perform sleek DN 296B LED 15S-6500 PSU WH led Down Light fitting with lamps and white reflector on false ceiling or Osram LED ECO 15 Watts.1200 /1275 lm Down Light fitting (including UPS Lights)	35	Nos.		
d	Supply and Installation of 20 / 21W, 4 Feet LED Batten Light fitting with suitable mounting clips. Philips Slimline / Panasonic Harrow AL	18	Nos.		
e	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 .	35	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 Points)	8	Nos.		
i	Supply and installation of 9" size medium duty exhaust fan. (Toilets) Crompton / Almonard make	3	Nos.		
j	Supply and installation of 12" size Heavy duty exhaust fan in the new UPS Room with required wall opening and its finishing thereof.	2	No.		
k	Supply and Installation of 450 mm sweep wall fan with metallic body, grill and blades. Crompton / Usha / Orient/V-Guard	13	Nos.		

l	Supply, installation, Testing and Commissioning of 1200mm sweep, BEE 5 star rated, ceiling fan with Brush less Direct Current (BLDC) Motor Class of insulation : B 3 nos Blade, 30cm long down rod, 2 nos, canopies, shackle kit, safety rope, copper winding, Power factor not less than .9, Service Value (CM/M/W) minimum 6.00, Air Delivery minimum 210 Cum/Min, 350 RPM (tolerance as per IS :374-2019), THD less than 10%, Electronic Regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max), insulation resistance more than 2 mega ohm, suitable for 230V 50Hz single phase AC supply earthing etc complete as required (Crompton High Speed)	10	Nos.		
m	Supply and Installation of step type modular electronic regulator.	10	No.		
n	Supply and providing fan rod with painting (upto 1m length) (other than that supplied with fan and if required)	10	Nos.		
o	Supply and providing fan hook on ceiling.	10	No.		
p	Supply and providing tinned copper earth bench using 25 x 3 mm copper strip (25 Cm in length) cycle screws should not used for connections	6	Nos.		
q	Supply and providing of 6A, 3 pin modular socket on suitable metal box for wall fan.	13	Nos.		
r	Supply and providing of Electrical Grade Rubber Mat (2m x 1m x 6mm) (for COS & UPS room)	2	Nos.		
s	Supply and fixing of wooden/steel framed Shock Treatment chart with glass of Standard size. (UPS room & Near VDB)	2	Nos.		
t	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)	490	m		
b.	10 pair Armoured telephone cabling (0.50 Sq.mm)	55	m		
2	Supply and fixing of RJ 11 type modular telephone socket on suitable PVC / metal boxes.				
a.	Telephone socket - single (modular type)	10	No.		
	Telephone socket - double (modular type)	1	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 20 pair. (Inside)	1	Nos.		
	PART - C				
	MUSIC SYSTEM AND TV Wiring				
1	Supply and Fixing of modular TV socket on suitable PVC boxes	2	Nos.		
2	Supply and laying of TV cable through 20mm thick PVC conduit	40	m		

3	Supply and wiring 2 core twisted 1.0 sq mm speaker cable through 20 mm pvc pipe with all accessories (Maximum 2 speakers in one circuit)	45	m		
4	Supply and fixing 6W recessed type speakers on ceiling. Ahuja CS-663T	6	No.		
5	Supply and installation of Ahuja make 75W Amplifier with USB port. Model: Ahuja DPA 770	1	No.		
GRAND TOTAL (Excluding GST)					

***GST EXTRA AT APPLICABLE RATES**