

STATE BANK OF INDIA					
SCHEDULE OF WORKS: ELECTRICAL WORKS					
NTPC BARH					
PART -A(MAIN PANEL, DISTRIBUTION BOARDS AND POWER CABLES)					
NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
ELECTRICAL					
1	<p>MAIN INCOMING SOURCE PANEL (MISP) :</p> <p>Supply &amp; fixing of indoor cubicle extensible type fully compartmentalized Distribution panel suitable for operation on 415 volts 50Hz 3phase 4wire AC distribution system, suitable for 50 KA shortcircuit rating, conforming to IP-42 degree of protection, made up of 1.6 mm thick CRCA sheet, wall/floormounted, dust&amp;verminproofenclosure, having hinged and earthed cover on front having neo prenegasket/ kating stuckto the doors, duly painted with 65-75microns thickdryepoxy powder paint after 7 tank process of degreasing, derusting etc comprising of the following switchgears complete with all interconnections with suitable size of copper strip/harddrawn PVC insulated copper cable i/c keeping the panel in position, minor civil works as necessary, painting, sign writing etc complete as required (asper specifications of Panel attached)</p> <p>TEST REPORT: FOLLOWING REPORTS HAVE TO BE PROVIDED BY THE VENDOR AT THE TIME OF SUBMISSION OF BILL:</p> <p>1) FINAL AS BUILT PLAN IN THREE COPIES DRAWN TO THE SCALE, PRINTED IN CASE OF CAD AND BLUE PRINT, IN CASE OF MANUAL DRAWING. 2) QUALITY REPORT INDICATING THE ITEMS USED WITH THEIR MAKES. 3) PANEL MANUFACTURER'S CPRI TEST REPORT. 4) ROUTINE TEST REPORT OF PANEL FOR IR &amp; HV TEST. <b>The cost of Panel should include internal wiring of the panel and the size(sqmm of Cu wire) should be as per the rating of MCCBs.</b></p> <p>The Panel consists of the following</p>				
1.1	<p><b>INCOMING :</b> 1 No. : 415V, 125A 4P MCCB (50 KA) for Mains(Ics=Icu=100%) 1No. : Digital Multi Function Meter (MFM) for Current, Voltage, Frequency, Power. 3 Nos.: LED Phase indicating lamps, 6 Nos.: Suitable CTS(200/5) wiring from 125Amps to Bus Bar with 4x 25 sqmm flexible Copper wire/cable <u>PVC sleeved TPN Tinned Copper Busbar</u> 35mm x 5mm for phases and neutral(2 sets) <u>G.I. EARTH BUSBAR</u> - 25mm x 3mm covering the total length of panel.</p> <p><b>OUTGOING :</b> <u>Termination J:</u> 2 No 32A DP MCB for Glow Sign Board and others, 1 No 63A 4P MCCB(25KA) for Light &amp; Raw Power VTPN , 1 No 63A 4P MCCB for UPS, 1 NO 40A DP SPARE, 1 No 63A 4P MCCB for E-lobby, 1 no 63A TPN SPARE Termination with second set Bus Bar : 1 Nos. 100A 4P MCCB(36KA) for AC , 1 NO 40A DP SPARE, 1 no 40A TPN MCB SPARE, Wiring from bus bar to 100A MCCB by copper strip by 4x25sqmm Cu wire, other MCCBs, MCBs wiring to be done as per the rating.</p>	SET	1		
2.1	(A) UPS INCOMING DB: Supply of all required materials and fixing of input UPS box (Company made) having provision of the following arrangement complete with all respects per the direction of engineer in charge. Incoming: 1 No. 63A (10KA) TPN MCB Outgoing: 2 Nos. 63 A (10KA) DP MCB	No.	1		
2.2	(B) UPS OUTGOING DB: Supply of all required materials and fixing of output UPS box (Company made) having provision of the following arrangement complete with all respects per the direction of engineer in charge. Incoming: 1 no. 63 A DP MCB Outgoing: 4 No. 40A (10KA) DP MCB	No.	1		
DISTRIBUTION BOARDS					
3	SITC of following VTPN MCCB Distribution Board (HVAC DB), having vertical fishbone busbar type, factory assembled wall mounted, sheet metal fabricated, fully powder coated, having dust proof & vermin proof hinged door with all internals such as DIN channels, neutral link, internal wiring complete with double earthing lugs including DB wiring dressing with ferruling, termination of circuits with ping type copper lugs, etc. housing following switchgears. (ABB / Legrand / Siemens / L&K make)				
3.1	Incoming: 1 no 415V ,4P, 63A MCCB, 25/36KA rating(L&T/ABB/SIEMENS) outgoing:- 8 nos 40A SP MCB(10KA), FOR RPDB/LDB/BM AC	SET	1		
3.2	Incoming: 1 no 415V ,4P, 100A MCCB, 25/36KA rating(L&T/ABB/SIEMENS) outgoing:- 8 nos 40A SP MCB(10KA), FOR Acs	SET	1		
4	RAW POWER DB/ LIGHT DB / COMPUTER DB Supply and installation of following metallic double door MCB Distribution Board with MCB having breaking capacity of 10 KA (minimum) complete with busbar, interconnection, painting, mounted on flat iron frame on wall/flushed with finished wall by chase cutting, mending good to original finish painting etc. as required. Name plate & number of DBs are to be fixed up on front door of DBs for their identification.				
A	CDB : Consumer unit SPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 240V 40A (10KA) DP RCBO(30mA-100mA) OUTGOING : 6 Nos. 240V 10A (10 KA) SP MCB	No.	2		
B	Double pole MCB DB in sheet steel enclosure with Incoming: 1 no. 25A DP ELCB, Outgoing: 2 no. 10A SPN MCB complete with interconnection, timer(QT-31) & contactor (2P 25A) for glow sign board and Street Light. (L&T/ABB/LEGRAND/SEIMENS)	No	1		
C	LDB/RPDB : Consumer unit SPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 240V 40A (10KA) DP RCBO(30mA-100mA) OUTGOING : 8 Nos. 240V 10A (10 KA) SP MCB	No.	4		
D	UPS Essential DB for CCTV, Fire Alarm Etc: Consumer unit SPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 240V 40A (10KA) DP RCBO OUTGOING : 8 Nos. 240V 10A (10 KA) SP MCB	No.	1		
POWER CABLES					

5	SUPPLY, LAYING, LUGGING, DRESSING, GLANDING, FINISHING, TESTING AND COMMISSIONING OF POWER CABLE: Following 1.1KV grade fire resistant A2XFY XLPE armored aluminium conductor cable with one no. 10 SWG GI wire, laying of the cable partly on wall/column including supply and fixing with 300mm apart MS clamps/galvanized bar saddles and double compression type brass cable gland <u>Dowel make</u> along with rubber rings for dust and moisture proof entry of the cable and finishing the ends by crimping method.. (POLYCAB/FINOLEX/NICCO/UNIVERSAL)				
5.1	SITC of 3.5CX 70 SQMM Main incoming cable	Mtr	70		
5.2	SITC of 3.5CX 50 SQMM cable for AC VTPN	Mtr	25		
5.3	SITC of 3.5CX 35 SQMM cable incoming cable Raw Power VTPN DB	Mtr	25		
6	MAIN TPN SFU: Supply, installation, testing and commissioning (SITC) of following TPN SFU with HRC fuses in sheet steel enclosure with cable end-box on MS Angle Frame/ MS Legs/ wall with interconnection, painting and finishing. 125A TPN SFU with HRC fuses	No.	1		
7	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, 160A TPN , 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	NO.	2		
<b>PART -B (SUBMAIN WIRING &amp; COMPUTER SOCKETS OUTLET )</b>					
<b>WIRING</b>					
8	Wiring flame retardant FRLS/FRLSH as mentioned in rows below in MS conduit of IS specification of proper size with all material supply installation and commissioning complete from DB .The wiring shall be carried out on surface above false ceiling, and below of false ceiling by chiseling the existing surface and plastering the same with cement etc., or as cutting of tiles(with finishing), as per site conditions after fixing the MS conduit with all accessories like saddles screws, bends T-joint etc				
a	With FRLS 2 nos. 6 Sq.mm + 1 no. 6 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for UPS Outgoing to LDB/ RPDB/ CDB	Mtr	160		
c	With FRLS 4 nos. 6 Sq.mm + 2 no. 6 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for UPS Incoming DB	Mtr	50		
d	With FRLS 2 nos. 6 Sq.mm + 1 no. 6 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for cassette AC (2 tr) as per direction of E-I-C.	Mtr	60		
e	With FRLS 2 nos. 4 Sq.mm + 1 no. 4 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for AC (1.5 tr) and other as per site requirement /as per direction of E-I-C.	Mtr	150		
f	With FRLS 2 nos. 10 Sq.mm + 1 no. 6 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit from UPS to UPS outgoing DB as per direction of E-I-C.	Mtr	20		
g	With FRLS 2 nos. 2.5 Sq.mm + 1 no. 2.5 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit as per site requirement or as per direction of E-I-C.	Mtr	50		
9	Dismantling of Existing Electrical wiring, light fittings, fans , Distribution Boards, Switches etc of the new premises and handling over the same to NTPC/Bank complete in all respects as per direction of Bank/E-I-C.	job	1		
<b>COMPUTER SOCKET WITH WIRING</b>					
10.1	(A) COMPUTER SOCKET OUTLET WITH WIRING <u>Computer socket outlet cluster point including supply and fixing of modular type socket outlet clusters components and its wiring from CDB, complete in all respect as detailed below. Each computer socket outlet cluster comprising the following</u> 5 Nos. 6/16A 5 pin modular type International sockets ,1 No. 16A modular type common controlling switch with indicator on table top with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm.FRLS (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point.	No.	7		
10.2	(B) COMPUTER SOCKET OUTLET AND ITS WIRING <u>Computer socket outlet cluster point including supply and fixing of modular type socket outlet clusters components complete in all respect as detailed below. Each computer socket outlet cluster comprising the following</u> 3 Nos. 6/16A 5 pin modular type International sockets, 1 No. 16A modular type common controlling switch with indicator on table top with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. PVC insulated copper wire (1.1 KV grade FRLS/FR-LSH) in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point. (proper colour code must be followed)	No.	2		
10.3	C ) UPS/ RAW POWER SOCKET OUTLET AND ITS WIRING Raw power socket outlet cluster point including supply and fixing of modular type socket outlet clusters components AND WIRING 1100V grade, FRLS complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 2 Nos. 6A/16A 5 pin modular type International sockets. 1 No. 16/20A modular type controlling switch with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from RPDB to Raw Power Outlet. Proper colour code must be followed.	No.	10		
10.4	D ) UPS / RAW POWER SOCKET OUTLET AND ITS WIRING Raw power socket outlet cluster point including supply and fixing of modular type socket outlet clusters components AND WIRING 1100V grade, FRLS complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 1 Nos. 6A/16A 5 pin modular type International sockets with indicator 1 No. 16/20A modular type controlling switch with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from RPDB/UPS ESSENTIAL DB to Power Outlet. Proper colour code must be followed.	No.	3		
11	DB with 32 A DP RCCB (30mA to 100 mA), AC Socket & Top for AC complete in all respect.	No.	6		
<b>EARTHING</b>					

12	. SITC of OBO Betterman /Equivalent make earthing system - * - UL Listed Earth Electrode - <u>Copper bonded</u> low carbon steel electrode, coating 250 microns - Tested as per IEC 62561-2 - Meets the requirement of IS 3043 and IEC 60364-5-54 - Tested for short circuit withstanding capacity - High tensile strength In one set it should include: a) One nos of Earthing rod-Type 17 3000 CCER, Length - <u>3000 mm</u> Outer Dia - 17.2 mm Copper bonded low carbon steel Electrode WITH 250 microns copper bonded b) One bag (25 KG) Earth Enhancement Compound confirming to IEC 62561-7 c) One nos of universal clamp .The work shall also include required masonry work, CI cover plate & Earthing name plate. The vendor shall also submit the earth test report with required values. Pics of earthing to be shown.	No.	3		
13	SITC of Earth distribution Box (Bus Bar Station) to be installed in the branch near Main Panel and UPS, comprising of a bus bar of 3x25x180mm cu strip	SET	2		
14	Supply and laying of 8 SWG Cu cotton coated wire in 20mm dia rigid PVC conduit for earthing <u>From the existing earth pit to the Main panel/UPS</u>	Mtr.	100		
15	SITC of Surge Protection Device , OBO Betterman/PHOENIX/DHEN/Equivalent make as V25-B+C/3 + NPE- FS-320, Class B+C (Lightning & Switching protection) SPD in suitable enclosure and necessary interconnection as required.	No.	1		
<b>POINT WIRING</b>					
16	POINT WIRING AND CIRCUIT WIRING Point wiring with FRLS 1100 V grade 3 nos. single core 1.5 sq.mm. and 1 for common earth by looping method) PVC insulated stranded copper conductor wire (IS:694) through suitable size M.S. conduit (ISI marked embossed on conduit surface) by thred cutting, complete with junction box, circular box, elbows, bends, couplers and other accessories 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 such as modular type 6A switch for light and fan point, 6A 2/3 pin shuttered socket outlet with switch in each switch board, 3 plate ceiling rose / angle or batten holder etc. as required. <u>The point wiring also includes circuit wiring with FRLS 1100 V grade 2 nos. single core 2.5 sq.mm. + 1 no. single core 1.5 sq.mm. PVC insulated stranded copper conductor cable (IS:694) through suitable size M.S. conduit as described above from DB to switch board, interconnection, mending good all damages to original finish, painting etc.</u>				
a	1 Light control by 1 switch	No.	50		
b	2 /3 Light control by 1 switch	No.	30		
c	UPS light point	No.	3		
d	Glow sign board wiring	No.	1		
e	Exhaust fan point	No.	5		
f	Ceiling fan point with down rod as required	No.	2		
g	1x16A 2/3 pin modular socket with switch on separate switch board outside the Cash Room complete with wiring. Suitable Top to be provided for supply to RECORD ROOM/STATIONERY ROOM/pantry	No.	2		
h	Wall fan point with 3 pin socket	No.	10		
i	3 pin 6/10A modular socket with switch in board	No.	5		
12	Supply and fixing of cordless calling bell with complete installation, as per direction of Bank/E-I-C	No.	1		
<b>PART C-SUPPLY AND FITTING OF ELECTRICAL FITTINGS</b>					
17	Supply & Fixing of 36W-2x2' LED Panel light recessed mounted suitable for grid/gypsum ceiling with electronic driver complete with all accessories. Model No are as under:- PHILIPS:- RC380B G2 LED 35S-6500 PSU OD WH LED ( <b>FULLGLOW</b> ) WIPRO:- CRCO10RO 38 HP57 HAVELLS:- LHECDIL7L1W036 (Edge- Lit) CG:- LCTAR3-40-CDL	No.	25		
18	Supply & Fixing of 12 W LED Downlighter recessed mounted for cove and others of Philips/Havells/crompton/Orient/Wipro make complete with all accessories.	No.	35		
19	Supply & fixing of 20W/22W LED T5 Batten fitting complete with all respect.	No.	12		
20	Supply & fixing of 36W LED Street Light with suitable mounting pipe etc. Of complete in all respect.	No.	2		
21	Supply & fixing of 450mm sweep, oscillating type, wall mounting, multi speed wall fan with sturdy metal body , with metallic back motor cover,Alumunium Blades, three pin complete with all respect as per direction of Bank/E-I-C. <b>Model Crompton SSTORM 2 Plus/Equivalent metal body fan as approved by Bank/E-I-C.</b>	No.	8		
22	SITC of 1200MM <b>BLDC</b> Energy Saving ceiling fan with wireless remote, Single phase heavy duty grease filled double ball bearing, aerodynamically designed heavy gauge aluminium blades, copper wounded and impregnated silicon stamping motors etc. 1200 mm sweep, brilliant white. <b>CG/ USHA/ ORIENT/ HAVELLS</b>	No.	2		
23	<b>EXHAUST FAN:-</b> SITC of Single phase, 300mm sweep, 900 rpm, metallic exhaust fan of the following singlephase Exhaust fan continuously rated, capacitor start and run type, totally enclosed and ruggedly built, pre lubricated double ball bearing, copper wounded, A & E class insulation, dynamically balanced, below 40 db sound level etc, front cover with grill/gravity louver for protection purpose with <b>12 mm plywood</b> complete in all respects. <i>in all respect make as under- CG/ USHA/ ORIENT/ HAVELLS/ ALMONARD/ALSTOM</i>	No.	5		
24	Supply & Installation of single color (warm white / any other approved color) flexible LED strip light for cove including required rated driver / power supply in multiples of 1 Rmtr as approved along with all necessary hardware & accessories, etc. Complete as required (PHILIPS / WIPRO / CGL / GE / Bajaj/Syska)	Rmtr	60		
25	SITC of LED 5W/6w light & fixture recessed type ROUND DOWNLIGHTER with all interconnection and fixing arrangements as Required.	No.	15		
26	Supply & fixing of following Profile channel with diffused cover MAKE DIGITEK OR APPROVED BY BANK ENGINEER <b>25MM-75mm PROFILE ON WALL AND CEILING</b>				
A	25mm	MTRS	12		
B	75mm	MTRS	10		

C	30-50mm FLEXI PROFILE ON CEILING	MTRS	10		
	<b>PART D- LAN CABLING WORK</b>				
27	Supply of 1 mtr. Long E-CAT 6 PATCH CHORD (Make: D-LINK, AMP, HCL, Legrand)	No.	14		
28	Supply of 2 mtr. Long E-CAT 6 PATCH CHORD (Make: D-LINK, AMP, HCL, Legrand)	No.	8		
29	<b>DATA POINTS : INTERNET SOCKET WITH DATA CABLE::</b> SITC of modular RJ-45 internet sockets with suitable mounting box (modular type) including all interconnections as required with front plate D link or equivalent make approved by the bank connections etc as required along with supply , laying ,concealing of CAT 6 LAN cables upto 35 metres or less or as per site conditions in rigid pvc conduit pipes complete in all respects from Data Rack to I/O points. <b>Rates to include cost of LAN cable and its installation.</b>	No.	16		
30	<b>9 U wall mounted RACK</b> :Providing, assembling, fixing, testing and commissioning of 9U Wall mounted RACKS for gig switches, patch panels etc including cooling DUAL fan trays, a 10 Point PDU, Fixed Trays as necessary complete in all respects.DLINK/LEGRAND	No.	1		
31	Providing, fixing,testing and commissioning of four pair CAT 6 LAN cable insuitable size of 20/25mm PVC medium gauge 16SWG conduit including all accessories to <b>interconnect the switches</b> from different location to ATM.	Mtr	35		
32	Supply of Cat-6 24 port jack panel make-D-link or equivalent	No.	1		
33	Charges for making and submitting neat and clean computerised Electrical Drawing of the Branch indicating SLD of the Branch, indicating DB, switch boards, etc along with proper numbering and indicating power flow and laminating the same.	SET	1		
34	Charges for making and submitting neat and clean computerised lan WIRING Drawing of the Branch indicating Data Rack , lan wiring to different I/O boxes etc along with <b>proper numbering and laminating the same.</b>	SET	1		
35	SITC of 63A 4P changeover switch in sheet steel enclosure complete in all respects as per direction of Bank/E-I-C.	SET	2		
	<b>INTERCOM TELEPHONE POINT</b>				
36	SITC of Two pair, 0.61 mm dia. <b>telephone cable</b> tinned copper conductor, P.V.C. insulated and sheathed , fire retarding, anti termite, colour coded twisted pairs and rip cord, Double outlet The length of telephone cable upto 35 meter length or less as per site condition <b>with shutter modular type Telephone Outlets ( RJ — 11 )</b> with suitable size MS / PVC modular boxes and it laying, fixing, testing and commissioning in suitable size 20/25 mm dia,16 SWG (Medium Gauge) thickness rigid PVC conduit with conduit accessories like bend/junction box/cover plate/sheet steel/PVC box on surface/ concealed manner i/c electrical connections and making goods all the damages,repastering, painting, cleaning the site etc complete as required as per site condition. The floor/roof/wall junction box should be of MS(heavy duty) box of suitable size and covered with Steel finish Steel cover sheet by screw tight and gasket to avoid water/dust insertion. <b>(Each workstation have 2no.of RJ11Socket)</b> <b>Make of Material:- Delton/ Finolex/ RR cable</b>	No.	15		
37	<b>TELEPHONE JUNCTION BOX</b> Supplying and fixing of krone telephone tag block on surface/ recess mounted withits accessories suitable for the multi core telephone cable and shall accommodate tin-plated phosphor bronze connectors, the connectors shall splice unskinned cables up to 0.61 mm dia and shall be terminate both incoming and out going lines, the tag blocks shall be mounted inside, water proof box and locking arrangement and shall be fully accessible. (A) 20 Pair tag block	No	1		
	<b>SUPPLY &amp; INSTALLATION OF STABILISERS</b>				
38	For 2 ton cassette AC /split AC (5 KVA) stabiliser with metal body	No.	2		
39	For 1.5 ton/ 1 ton Cassette AC /split stabiliser with metal body (4 KVA)	No.	6		
40	Supply & fixing of 32 ADP MCB in Weather proof Enclosure to be fixed near outdoor unit complete in all respects as per direction of E-I-C.	SET	8		
41	<b>OCCUPANCY SENSORS:-</b> Supply, installation, testing and commissioning of occupancy sensor surface/recess mounted in RM chamber , as per site condition complete with all wiring/ conduit/ Switch etc complete in all respect as per site condition as required Honeywell Make K5015/16, Siemens/ Johnson Control Equivalent as per Bank's / E-I-C approved. For BM Cabin.	NO.	1		
42	SITC of Electronic Timer for auto swith on/off to U.P.S. Room Exhaust Fan for 4Hr/8Hr. Make:- Legrand, L&T, and other Eq. ISI make	no	1		
43	Supply and providing of Electrical Grade Rubber Mat (2m x 1m x 6mm) for UPS room and Near Electrical Panel	No.	2		
44	Supply and fixing of wooden/steel framed Shock Treatment chart with glass of Standard size.	No.	1		
	<b>PART E - ATM WORKS</b>				
45	SITC of following VTPN MCCB Distribution Board (HVAC DB), having vertical fishbone busbar type, factory assembled wall mounted, sheet metal fabricated, fully powder coated, having dust proof & vermin proof hinged door with all internals such as DIN channels, neutral link, internal wiring complete with double earthing lugs including DB wiring dressing with ferruling, termination of circuits with ping type copper lugs, etc. <b>housing following switchgears. (Schneider / ABB/ Legrand / Siemens / L&amp;T make)</b>				
45.1	Incoming: 1 no 415V ,4P,63A MCCB,25/36KA rating(L&T/ABB/SIEMENS ) outgoing:- 1 No 32A DP MCB for Glow Sign Board, , 1 No 40A TPN MCB FOR UPS, 1 Nos. 40A 4P TPN MCB (10 KA) for AC and Light DB , 2 NO 25A DP SPARE	SET	1		
	<b>DISTRIBUTION BOARDS</b>				
46	Supply and installation of following metallic double door MCB Distribution Board with MCB having breaking capacity of 10 KA (minimum) complete with busbar, interconnection, painting, mounted on flat iron frame on wall/flushed with finished wall by chase cutting, mending good to original finish painting etc. as required. Name plate & number of DBs are to be fixed up on front door of DBs for their identification.				

46.1	(A) UPS POWER DB: Supply of all required materials and fixing of input UPS box (Company made) double door having provision of the following arrangement complete with all respects per the direction of engineer in charge. Incoming: 1 No.40A (10KA) TPN MCB Outgoing: 3 Nos. 32 A (10KA) DP MCB, 2 no 10 A DP MCB	No.	1		
46.2	Supply & Installation of 25A, timer switch with 2 no.s of 25A DP MCB's Along with suitable size enclosure box for switching of A.C.'s, etc. along with 2NO 25A 1M contactor in the same enclosure box for controlling 2 no.s of AC power circuit through Timer for E lobby and ATM A/C's through timer & contactor including all necessary hardware & accessories, etc. complete as required .	SET	1		
46.3	SITC of TPN Double Door DB IP42/43 with 40A FP MCB INCOMING , & outgoing 32A SP MCB 2nos (AC) ; 2 nos 6 A SP MCB for light; 1 no. 240V 16A SP MCB for power point, 2 No 10 A MCB spare .	No.	1		
WIRING					
47	Wiring flame retardant FRLS/FRLSH as mentioned in rows below in MS conduit of IS specification of proper size with all material supply installation and commissioning complete from DB .The wiring shall be carried out on surface above false ceiling, and below of false ceiling by chiseling the existing surface and plastering the same with cement etc., or as cutting of tiles(with finishing), as per site conditions after fixing the MS conduit with all accessories like saddles screws, bends T-joint etc				
a	With FRLS 2 nos. 6 Sq.mm + 1 no. 6 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit	Mtr	10		
b	With FRLS 4 nos. 6 Sq.mm + 2 no. 6 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for UPS Incoming DB	Mtr	15		
c	With FRLS 2 nos.2.5 Sq.mm + 1 no. 2.5 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit	Mtr	20		
d	With FRLS 2 nos. 4 Sq.mm + 1 no. 4 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for AC (1.5 tr) and other as per site requirement /as per direction of E-I-C.	Mtr	20		
POWER CABLES					
48	SUPPLY, LAYING, LUGGING, DRESSING, GLANDING, FINISHING, TESTING AND COMMISSIONING OF POWER CABLE: Following 1.1KV grade fire resistant A2XFY XLPE armored aluminium conductor cable with one no. <u>10 SWG GI wire</u> , laying of the cable partly on wall/column including supply and fixing with 300mm apart MS clamps/galvanized bar saddles and double compression type brass cable gland <u>Dowel make</u> along with rubber rings for dust and moisture proof entry of the cable and finishing the ends by crimping method.. (POLYCAB/FINOLEX/NICCO/UNIVERSAL)				
48.1	SITC of 3.5CX 35 SQMM cable incoming cable	Mtr	30		
COMPUTER SOCKET WITH WIRING					
COMPUTER SOCKET OUTLET AND ITS WIRING					
49	Computer socket outlet cluster point including supply and fixing of modular type socket outlet clusters components complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 3 Nos. 6/16A 5 pin modular type International sockets 1 No. 16A modular type common controlling switch with indicator on table top with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. PVC insulated copper wire (1.1 KV grade FRLS/FRLSH) in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point. (proper colour code must be followed).	No.	1		
50	UPS/ RAW POWER SOCKET OUTLET AND ITS WIRING Raw power socket outlet cluster point including supply and fixing of modular type socket outlet clusters components AND WIRING 1100V grade, FRLS complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 2 Nos. 6A/16A 5 pin modular type International sockets. 1 No. 16/20A modular type controlling switch with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from RPDB to Raw Power Outlet. Proper colour code must be followed.	No.	3		
51	UPS / RAW POWER SOCKET OUTLET AND ITS WIRING Raw power socket outlet cluster point including supply and fixing of modular type socket outlet clusters components AND WIRING 1100V grade, FRLS complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 1 Nos. 6A/16A 5 pin modular type International sockets with indicator 1 No. 16/20A modular type controlling switch with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from RPDB to Raw Power Outlet. Proper colour code must be followed.	No.	1		
52	DB with 25 A DP RCCB (30mA to 100 mA), AC Socket & Top for AC complete in all respect.	No.	2		
EARTHING					
53	. SITC of OBO Betterman make earthing system - * - UL Listed Earth Electrode - <u>Copper bonded</u> low carbon steel electrode, coating 250 microns - Tested as per IEC 62561-2 - Meets the requirement of IS 3043 and IEC 60364-5-54 - Tested for short circuit withstanding capacity - High tensile strength In one set it should include: a) One nos of Earthing rod-Type 17 3000 CCER, Length - <u>3000 mm</u> Outer Dia - 17.2 mm Copper bonded low carbon steel Electrode WITH 250 microns copper bonded b) One bag (25 KG) Earth Enhancement Compound confirming to IEC 62561-7 c) One nos of universal clamp .The work shall also include required masonry work, CI cover plate & Earthing name plate. The vendor shall also submit the earth test report with required values. Pics of earthing to be shown.	No.	1		

54	SITC of Earth distribution Box (Bus Bar Station) to be installed in the branch near Main Panel and UPS, comprising of a bus bar of 3x25x180mm cu strip	SET	1		
55	Supply and laying of 8 SWG Cu cotton coated wire in 20mm dia rigid PVC conduit for earthing From the existing earth pit to the Main panel/UPS	Mtr.	20		
<b>POINT WIRING</b>					
56	POINT WIRING AND CIRCUIT WIRING Point wiring with FRLS 1100 V grade 3 nos. single core 1.5 sq.mm. and 1 for common earth by looping method) PVC insulated stranded copper conductor wire (IS:694) through suitable size M.S. conduit (ISI marked embossed on conduit surface) by thred cutting, complete with junction box, circular box, elbows, bends, couplers and other accessories 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 such as modular type 6A switch for light and fan point, 6A 2/3 pin shuttered socket outlet with switch in each switch board, 3 plate ceiling rose / angle or batten holder etc. as required.				
a	1 Light control by 1 switch	No.	10		
b	UPS light point	No.	1		
c	Glow sign board wiring	No.	1		
d	3 pin 6/10A modular socket with switch in board	No.	1		
<b>PART B-SUPPLY AND FITTING OF ELECTRICAL FITTINGS</b>					
57	Supply & Fixing of 36W-2x2' LED Panel light recessed mounted make complete with all accessories.	No.	2		
58	Supply & Fixing of 12 W LED Downlighter recessed mounted of make complete with all accessories	No.	4		
59	Supply & fixing of 20W/22W LED T5 Batten fitting complete with all respect.	No.	2		
60	Supply & fixing of 35W LED Street Light with suitable mounting pipe etc. Of complete in all respect	No.	2		
<b>LAN CABLING WORK</b>					
61	Supply of 2 mtr. Long E-CAT 6 PATCH CHORD (Make: D-LINK, AMP, HCL, Legrand)	No.	2		
62	INTERNET SOCKET WITH DATA CABLE:: SITC of modular RJ-45 internet sockets with suitable mounting box (modular type) including all inter-connections as required with front plate D link or equivalent make approved by the bank connections etc as required along with supply , laying ,concealing of CAT 6 LAN cables upto 25 metres or less or as per site conditions in rigid pvc conduit pipes complete in all respects from Data Rack to I/O points. Rates to include cost of LAN cable and its installation.	No.	3		
63	SITC of CAT 6 LAN cables (D-link/Equivalent) in rigid pvc conduit pipes complete in all respects from Branch to ATM include end terminations as required complete in all respects as per Direction of Bank.	Mtr	50		
64	Supply & installation of 6U Rack with power supply arrangement, ventilation fan, mounting racks ect. Complete with all accessories.	No.	1		
65	UPS INPUT:- Incoming 3 PIN ( 2P+1E) industrial type socket with matching plug and MCB:- 20/32Amp DP UPS OUTPUT:- Incoming 3 PIN (2P+1E) industrial type socket with matching plug and MCB:- -20/32 Amp DP 1No. Make- (Legrand/L&T/Schneider/ABB)	SET	2		
66	SITC of 63A 4P changeover switch in sheet steel enclosure complete in all respects as per direction of Bank/E-I-C.	SET	1		
67	SITC of 125A 4P MCCB, switch in sheet steel enclosure complete in all respect at NTPC power supply source/feeder as per direction of Bank/E-I-C.	SET	1		
68	SITC of MS perforated cable tray painted with powder coating 225 X 50 X 1.6 mm FOR POWER CABLES complete in all respects as per direction of Bank/E-I-C.	mtr	30		
<b>PART - F - Air conditioning Works</b>					
	Design,Supply , installation, testing & commissioning of air-conditioning units (including MS frames/stands for standard installation of indoor and outdoor units )as per the details of scope of work, specifications and components given else where in the tender. (please read before quoting)Note:The contractor will attend to all defects noticed during defect liability period. Within 24 hours from the time of complain If the contractor fails to attend to the defects within 24 hours time these defects will be rectified by the Bank and the expenditure incurred on this account will be recovered from security deposit, or any other money due on to time. The Entire Job Shall be Executed in Total Co. Ordination with the Other Agencies Working on this Project more particulary with the False Ceiling. The quantities as mentioned of AC are provisional may increase/decrease/withdrawn as per requirement of site or instruction of Bank.				
<b>High Side Items</b>					
69	Supply of following Ceiling Mounted 5 STAR 4-way Cassette type AC with scroll / Rotary / Twin rotary / Reciprocating compressor, having R 32/R-410A eco friendly gas. Including indoor unit & outdoor unit. decorative grille and cordless remote Machine shall have copper condenser Unit. (The positions must be designed in an apt away as per site conditions)				
69.1	Supply of single phase latest available model 5 STAR 1.8 TR or 2.0 TR or nearest higher rating Capacity Copper ( inverter technology) Cassette type split air conditioners with Copper Condensor Coil and eco friendly refrigerants (R32 or R 410A). (Make: LG/ Daikin / Carrier / O-general/ Mitsubishi / Bluestar/Hitachi) FOR HALL AREA	No.	2		
69.2	Supply of 1.5 TR Hi wall split Air Conditioner Unit (latest 2026 model , new 5 STAR inverter type copper) , standard kit, ref pipe, cable etc & fixing accessories. (Make: LG/ Daikin / Carrier / Hitachi / Mitsubishi / Bluestar) For BM chamber , hall etc	No.	4		
69.3	Supply of 1.0 TR Hi wall split Air Conditioner Unit (latest 2026 model , new 5 STAR inverter type copper) , standard kit, ref pipe, cable etc & fixing accessories. (Make: LG/ Daikin / Carrier / Hitachi / Mitsubishi / Bluestar) For ATM	No.	2		
<b>Low Side Works</b>					

70	Refrigerant copper piping both in and out, laid between indoor & outdoor unit as per OEM's specifications duly insulated with Class "O" fire retardant 6 mm sleeve type elastomeric nitrite rubber insulation. It shall be in total clamping manner above false ceiling & in total concealed manner below false ceiling level. From the structural ceiling it should hang or shall be fixed on wall / beam etc. with clamps & the distance between two clamp shall be less than 1 meter. It shall not be placed over the false ceiling nor it shall be fixed with false ceiling members. The diameter / gauge of the ref.pipe shall be as per the specifications of the Manufacturing company (OEM) only for each type of machine.				
70.1	For Cassette AC (2.0TR)	Rmt	35		
70.2	Extra refrigerant pipe for Split AC	Rmt	15		
71	Drain Piping: Insulated Condensate Water Drain piping constructed out of PVC / HDPE hard pipes, fitting, accessories, bends, elbows, tees, flanges, tappings, wall sleeves, hangers, supports, anchors Fastners.				
71.1	Drain pipe	Rmt	70		
72	SITC of Electrical Power Cabling between indoor unit & outdoor unit as per OEM's design & specifications in 25mm dia., conduits with accessories The power shall be made available at 1 place & single core wire shall not be used. It shall be in clamping manner above false ceiling & in concealed manner below false ceiling level. Additional gas charging if required on account of length of if required is in scope of vendor at no extra cost. From structural ceiling it should hang or shall be fixed on wall/beam etc. with clamps at distance not more than 1 meter. It shall not be placed over the false ceiling nor shall be fixed with false ceiling members.				
72.1	Control cable between indoor & outdoor unit for cassette AC	Rmt	60		
72.2	Extra Control Cable for split AC	Rmt	20		
73	Installation charges of the 2.0 TR/1.5TR/1.0 Copper Cassette Type/ Split AC including outdoor frame / stands to withstand the full load of outdoor units and making good all the damage.	No.	8		
74	All sort of Civil work required to be executed in order to make the Air-conditioning system installed & put in working condition. The item includes, making holes / gaps in walls to pass duct & pipes, making zaries required for various types of drain, refrigerant & drain water pipes / lines in walls, floor etc. using cutter machine, including core cutting , wall cutting etc as required. Scaffolding if required is in scope of vendor.	Job	1		
			<b>TOTAL (Rs.)</b>		
<b>Grand Total</b>			<b>Grand Total</b>		
(GST will be extra as applicable)					
The rate quoted shall be firm and shall include all costs, allowances, Charges, levies, Royalties, Cess, transportation etc. but excluding GST as applicable which will be reimbursed by the Bank as per Government norms prevailing from time to time. Contractor's are advised to visit the site before quoting. The quantities are tentative may increase or decrease as per site requirement.					
<b>Recommended Manufacturers</b>					
Cables- (POLYCAB/FINOLEX/NICCO/UNIVERSAL/KEI)					
WIRES - (POLYCAB/KEI/FINOLEX/RR-KABEL)					
DB/MCCB/MCB/RCBO/ELCB- LEGRAND/ABB/SEIMENS/L&T					
CHANGE-OVER-SWITCH - HPL /SOCOMEK/ABB					
SWITCHES/SOCKETS/REGULATOR-					
LEGRAND/NORTHWEST(STYLUS)/ABB(TVISHA)/L&T/Equivalent					
METAL CLAD SOCKET & PLUG- L&T/LEGRAND/ABB/C&S					
MEASURING INSTRUMENTS- AE/ IMP/ L&T/ GE/ TELEMECANIQUE/					
PROK/EQUIVALENT					
LED LIGHTS - PHILIPS/HAVELLS/CROMPTON/WIPRO/EQUIVALENT AS APPROVED BY E-I-C.					
CEILING FAN/EXHAUST FAN-					
CROMPTON/HAVELLS/ALMONARD/USHA/POLAR/ORIENT					
EXHAUST FAN - CROMPTON/					
BAJAJ/ALSTOM/ALMONARD/HAVELLS/USHA/ORIENT					
Conduit					
MS- BEC/ NIC/ AKG/ BHARAT/ JINDAL					
PVC RIGID - BEC/ AKG/ PRECISION/Equivalent					