

**BOQ OF PROPOSED ELECTRICAL & AC WORKS AT SBI, SARIYA ROAD, PUSAUR DISTRICT  
RAIGARH (C.G.)**

S.No.	DESCRIPTION OF ITEM	Unit	Qty	Rate	Amount
(A)	<b>ELECTRICAL WIRING WORK</b>				
	Note: Use of Flexible conduits & Elbows in Circuit wiring is not allowed except in exceptional site conditions with the approval of Bank's Engineer / Architect and All wiring laying in the MS/PVC conduit strickle follow IE (Indian Electricity) rules, IS code, follow in all items of project/work execution. Proper ferrules, lux, thimble, gland termination to be done in all cabling & wiring from both load/source end. Conduit carrying submain will not carry circuit/point wiring. Similarly conduit carrying circuit wiring will not carry submain/point wiring. Conduit carrying point wiring will not carry submain/circuit wiring. All Electrical works (Cabling/wiring/panel etc) to be carried out as per layout/General Arrangement Drawing				
1	<b>ELECTRICAL WIRING</b>				
	Providing, fixing, testing and commissioning of POINT WIRING of any length for light point/ Wall fan point / Exhaust fan point/ Call bell point/ including call bell/ including fan box (if required), 'S' type fan hook etc with 3 X 1.5 Sq.mm(P/N/E) PVC 650V/1100V Grade FR insulated copper conductor single core multi stranded wire in 16 SWG (Medium Gauge) stove enamelled rigid steel conduit 20mm/25mm with conduit accessories like bend, junction box etc in concealed/surface manner as				
	per site requirement with suitable Modular Switches / Sockets with plate and Metal/PVC box, Scaddle, angle bracket (if required), 3 plate ceiling rose/bulb holder etc. 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				
	insertion. The item includes Circuit wiring from DB to the switch board with 3x2.5 Sq.mm. The above wiring carried out surface or recess in wall/floor/roof should be cutting by cutter/chisling, replastering, curing, painting with uniform and smooth finish by specialised workmanship and making the surface neat afterwards complete in all respect as per direction of Bank Engg. (Each Circuit to take NOT MORE than 7-8 points) The conduit/ Flexible conduit/junction box/metal modular box etc must be joined by gland and check nut at both ends. (each circuit to be controlled by one MCB). The colour code of wire are as under: Phase- Red, Neutral- Black, Earth-Green <b>Make of Material for items of BOQ:-</b> (i) Modular Type Switch/socket/step electronic fan				
	regulator plate, box, TV/telephone, bulb holder/3 pin ceiling rose with all accessories:- Lergand/ Anchor(Roma)/MK/ Crabtree (ii) MS conduit/PVC conduit with all accessories:- BEC/AKG/NIC/Precision (iii) PVC insulated copper wire(FR) 650V/1100 V grade:-				
a	Providing and fixing of point wiring with above specifications. One light point controlled by one switch.	40	Nos.		

b	Providing and fixing of point wiring with same above specifications. Two light points to be controlled by one switch	15	Nos		
c	Providing and fixing of ceiling fan point controlled as under (i) one 6 amp switch (ii) one no stepped electronic regulator of two module	10	Nos.		
d	providing and fixing 6 Amps Plug Points with same specs as above and install along with same light switchboard	8	Nos		
e.	Master switch of <b>16 Amps (Only Grey/Golden/Wooden colour other than white colour)</b> to install alongwith same light switch board to control all light as a master switch ON/OFF in each switch board	6	Nos		
2	<b>6 AMP. POINTS ON SEPARATE BOARD :</b>				
	Supply, fixing, testing and commissioning of 1 No 6 A Multi Socket with 1 No. 6 A switch ( Modular type ) with cover plate , sheet steel box / PVC modular box etc on surface / concealed manner I/c electrical connections and making good all the damages, painting, cleaning the site etc complete including all accessories as per requirement and as directed. (Minimum two and Maximum three points are loop with	8	Nos		
3	<b>Power Wring (6 / 16 AMP. POWER POINTS)</b>				
	Supply, fixing, testing and commissioning of 1 No 16 A switch & 1 No.six pin 6/16 Amp. Multi Socket ( Modular Type ) with cover plate , sheet steel box etc on surface / concealed manner I/c electrical connections and making good all the damages, painting, cleaning the site etc complete including all accessories as per requirement and as directed. (Maximum two points are loop with one circuit as	10	Nos		
4	<b>SPECIAL POINTS : (For Computers)</b>				
	Supply, fixing, testing and commissioning of following Modular type switch socket with cover plate, PVC modular box on Surface / sheet steel box in concealed manner I/c electrical connections and making good all the damages, painting, cleaning the site etc complete including all accessories as per requirement and as directed. 2 Nos. 6 A Switch + 3 Nos. 6 A, 3 pin Socket (Minimum two and Maximum three points are loop with one circuit as mentioned below)	21	Nos		
5	<b>AC Point (Single Phase)</b>				
a.	Supply, Installation, Testing and commissioning of the surface / recess mounting A.C. Cassette power point with the followings : Metal enclose Four way with one Nos 32 Amp FP MCB with complete Enclosur plate and box.- 1 set i/c electrical connections and making good all the damages, painting, cleaning the site etc complete as required as per site requirement and as directed. (Only one point is with one circuit as mentioned below.	10	Nos		
6	<b>CIRCUIT WIRING :</b>				

	Supplying, providing circuit wiring for Power/UPS with following PVC insulated copper conductor single core multi stranded wire ( HRFR ) in mentioned conduit i/c electrical connections in 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 MS conduit with conduit accessories like bend/junction box/ fan box etc with cover plate, sheet steel box/ PVC modular box etc on surface/ concealed manner i/c electrical connections and making goods all the damages, replastering, 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. The length of circuit upto 30 meter length or less as per site condition/requirement. Make of material				
a	(i) MS conduit/PVC conduit with all accessories:- BEC/AKG/NIC/Precision (ii) PVC insulated copper wire (FR) 650V/1100 V grade:- Finolex/RR cable/ Havells 3 X 2.5 sqmm ( For UPS Circuit/6 amp Separate Board ) in suitable size of 16 SWG (MMS) steel conduit as per IS	10	Nos		
b	3 X 4.0 sqmm ( For AC/Power Circuit ) in suitable size of 16 SWG (MMS) steel conduit as per IS code.	10	Nos		
7	UPS Outgoing & Other wiring as per requirement.				
(a)	3 x 10 Sqmm copper multi strand wire in 25 mm 16 SGW (MMS) steel conduit. ( UPS INPUT DB TO UPS)	24	R.Mtr		
(b)	3 X 1.5 Sqmm copper multi strand wire in suitable size of 16 SWG (MMS) steel conduit.	20	R.Mtr		
(c)	3 X 2.5 Sqmm copper multi strand wire in suitable size of 16 SWG (MMS) steel conduit.	24	R.Mtr		
(d)	3x4 Sqmm copper multi strand wire in suitable size of 16 SWG (MMS) steel conduit.	12	R.Mtr		
(f)	3 X 6 Sqmm copper multi strand wire in suitable size of 16 SWG (MMS) steel conduit.	12	R.Mtr		
8	<b>DISTRIBUTION BOARDS</b>				
	All MCB to be "C" series				
a	Supply, installation, Testing and commissioning of the surface/recess mounting following ways MCB DB's 230/415 Volts with tinned copper busbar, neutral bar, earth bar, din bar detachable gland plate, interconnection and making good all the damages, painting, cleaning the site etc complete as required as per site requirement. All MCCB has breaking capacity is 25KA and ALL MCB/ELCB has breaking capacity has 10 KA. Make of Materials Panel- As per IS Standards/CPRI Tested. DB/MCCB/MCB-Legrand/Siemens/Haggar/Schneider (Note:- Before Placing the Panel order, it should be certified the Bank Authority)				

b	<p>Supplying, installation, testing and commissioning of indoor type , sectionalised, compartmentalized, MV Panel board of suitable size fabricated from CRCA sheet of 2 mm thick for frame work,enclosure and doors, 3 mm thick for gland plates with stiffers where required, having vibration free structure chemically treated with seven tank process before painting for surface treatment and powder coated,with aluminum busbar with DMC / SMC busbar supports suitable for 3 Phase 415 V 50 Hz AC supply i/c providing and fixing the following switchgear mounted thereon complete with gaskets and interconnections, connection as per specification complete as required.</p> <p>( The board shall be dust &amp; vermin proof with suitable degree of IP protection ) NOTE : All switchgears Ics shall be equal to 100% Icu.</p> <p>Sheet 14 swg : panel sides,upper,lower,and Ft.doors</p> <p>Sheet 16 swg : back side and compartments.</p> <p>Glande plates : 3 mm thick.</p> <p>Cable entry : Provision at bottom and upper sides.</p>	1	Nos		
	<p><b>C. OUTGOING SWITCHGEARS:</b></p> <p>(i) 1 Nos- 160 Amp TP MCCB for main with 300 amp bus bar with indicator.</p> <p>(ii) 200 amp onload changeover with 1 Nos 160 amp 25 KA, TP MCCB for DG supply with 300 amp bus bar with indicator</p> <p>(iii) 300 amp bus bar for parallel connection with DG changeover output</p>				
c	Supply & Installation of SDP (Surge Protector Device) for general protection of main Distribution Board				
	Make Cat No. 412247 (3P+N), 40 KA, T2- Imax 40KA/nole with complete wiring.	1	Nos		
d	Providing and fixing 6 way TPN double door DB for LIGHT /POWER POINTS with 63 Amp TPN , controlling 18 Nos. 10/16/32 Amps SPMCBs & complete	1	Nos		
e.	Providing and fixing 4 way TPN double door DB for LIGHT /POWER POINTS with 63 Amp TPN , controlling 12 Nos. 16/32 Amps SPMCBs & complete	1	Nos		
f	Providing and fixing (8) way SPDB double door type For Light DB only for Emergency Lights like glow sign etc with 1x32 Amps DP, controlling 6 NO.10 A./16 AMP SPMCB	1	Nos.		
g	Providing and fixing of Kit Kat Rewirable Porcelian fuse carrier & base with wooden frame of 200 amp/415 Volt near meter box	1	Set		
i	Providing and fixing <b>compact DB for ATM</b> in size as per requirement, weather-resistant, modular design suitable for outdoor installation. It includes rated voltage (e.g., 415V), rated current (e.g., 100A or higher), busbar material (e.g., copper or aluminum), and protection levels (e.g., IP43 or IP65) with the following features and	1	set		
	Three phase supply from the mains equally distributed to respective load, protected through high quality ELCP/MCP, provision for earthing for both, input and output, wiring for neutral isolation between mains and UPS output, inbuilt timer for alternate AC operation, auto on-off for glow sign board complete in all respect				
9	<b>CABLES</b>				



(iii)	Providing and fixing Copper/GI strip as per specification including connection to earth electrode revetting/sweating/soldering, burying 15 cms below in all types of soil/rocks etc complete as required.				
	(a) Copper Strip 25 x 5 mm	10	Mtr.		
	(b) G.I.Strip 25 x 5 mm	10	Mtr		
(iv)	Supply and laying of 10 Sq.mm 650V/1100 V PVC grade insulated copper wire in 15 mm G.I. Pipe ISI grade including all accessories complete as required.Dedicated Earthing for UPS output DB only	14	Mtr.		
11	<b>TELEPHONE POINT</b>				
	Supplying, Installation, testing and commissioning of the telephone point with the followings				
(i)	Two pair, 0.61 mm dia. telephone cable 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 with shutter modular type Telephone Outlets ( RJ — 11 ) wth 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/chart steel/PVC box on surface/	4	Nos		
	concealed manner i/c electrical connections and making goods all the damages,replastering, 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				
	Make of Material:- Delton/Finolex/RR cable				
(ii)	Supplying and fixing of krone telephone tag block on surface/ recess mounted with its 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 accessibIe.	1	Nos		
	(A) 20 Pair tag block				
(iii)	Supply, installation, testing and commissioning of the following size iellv filled armoured telephone cable. 20 pair	40	Mtr		
12	<b>DATA CABLING FOR LAN</b>				

a	Providing, fixing, testing and commissioning of all nodes of four pair UTP CAT 6 LAN cables length upto 15 meter length or less as per site condition in suitable size 20/25 mm dia, 16 SWG wall thickness rigid PVC conduit with conduit accessories like bend/junction box/ fan box etc on surface/recessed manner and making good all the damages, painting, cleaning the site etc complete as required as per site condition and as directed as required. Junction box should be covered with Stainless steel plate with screw with gasket for protection of water/dust. Providing, fixing, testing and commissioning of modular type Information Outlets with suitable size of MS/PVC modular boxes complete, all accessories with insulation displacement connectors etc suitable for CAT 6 UTP cabling with RJ-45 socket with testing and commissioning of STP cabling with scanner for all the nodes/switches/jack panel complete (Each point/circuit/cable from both load and source end to be marked with ferrules.) Make of Material:- (i) Data Cable, Cat 6, Switch, Jack panel, Rack, Patch	21	Nos		
b	Providing and fixing of flowing factory fabricated Patch cords. (UTP/CAT 6 complete with connector on both side.)				
i)	for 1 Mt. long	21	Nos.		
ii)	for 2 Mt. long	21	Nos		
h	Providing, fixing, testing and commissioning of four pair CAT 6 LAN cable in suitable size of 20/25mm PVC medium gauge 16SWG conduit including all accessories to interconnect the switches from different location	120	Mtr		
13	TV POINT:-Supply, installation, testing and commissioning of TV point (Modular) with RG-6 cable in the Medium Gauge 1.6 mm PVC Conduit with all accessories complete in all respect	1	Nos		
14	Supply and installation of Vinyl sticker for on Electrical DBs like, " Switch Off at Night" , Switch Off For Safety, etc	10	Nos		
15	Making & Providing of 3 sets of As built Drawing with coloured print for entire Electrical work (Power/UPS/Light/Data/Telephone/AC etc.) as advised by the Bank's Authority	1	Lum sum		
16	Description of light /fan fixture				
	Supply and Installation, Testing and commissioning of the following fittings / equipments in surface/recess mounted as directed etc down rods of size upto 300 mm where ever required with ball sockets, anchor fastener etc complete as per site conditions. All fittings should be hang with suitable size of GI wire to four corner of fittings to the RCC rooftop with suitable size of anchor fastener/heavy gauge screw. The necessary arrangement is made by the contractor to install fittings in false ceiling especially 2'X2' and 4'X1' etc. as per instruction of Bank Enaa.				
i	LED LUMINAIRES:- 2'x2' ( <b>FULL GLOW TYPE</b> ) LED light fittings (600X600mm) dimension suitable for grid/gypsum ceiling complete with its electronic driver as required per instruction of Bank's Model No are as under:- PHILIPS:- RC380B G2 LED 35S-6500 PSU OD WH LED				

	<b>(FULLGLOW)</b> WIPRO:- CRCO10RO 38 HP57 HAVELLS:- LHECDIL7IL1W036 ( <b>Edge- Lit</b> ) CG:- LCTAR3-40-CDL <b>Basic rate - Rs. 1950/-</b>	21	Nos		
ii)	LED DOWNLIGHTER: 15 Watt, recessed mounted circular down lighter , 6" dimension with complete its electronic driver are as under:- PHILIPS:- GREENLED-DN193B LED-12S-6500 PSU WIPRO:- IRIS LED LD 71-121-XXX-50-XX HAVELLS:- LHEBJNP ZPZ 1W 015(ENDURA LOW DEPTH) CG:- LC DD-15-CDL <b>Basic Rate - Rs. 600/-</b>	30	Nos		
iii	LED Spot Light, 3 Watt, 2/3"(Inches) size as per site requriment. PHILIPS, WIPRO, HAVELS, CG <b>Basic Rate - Rs. 190/-</b>	8	Nos		
iv	LED COVE/ STRIP LIGHT WITH ITS ELECTRONIC DRIVER (BLUE COLOUR):- Supply, installation, testing and commissioning of bright LED strip light with its electronic driver complete as required. PHILIPS, WIPRO, HAVELLS, CG <b>Basic Rate - Rs. 190/- per metre</b>	30	Mtr		
v	BOX TYPE LUMINAIRES: LED TUBE FITTINGS, 1200 mm, 18/20 Watt PHILIPS/WIPRO/HAVELLS/CG <b>Basic Rate - Rs. 280/-</b>	8	Nos		
17	<b>CEILING FAN:</b> BLDC Ceiling fan No. of blades-3, Input Voltage 230 V AC + 40V Single phase, Frequency 50 + 2 Hz, Power consumption Maximum 32 Watt, Mounting type Down rod mount (Length 300 + 20mm). The ceiling fan should work in normal regulator operation. Mounting accessories such as nut, bolt, clamp etc. should also be supplied along with the fan. CG/USHA/ ORIENT/HAVELLS make. <b>Basic rate- Rs. 2500/-</b>	10	Nos		
18	<b>EXHAUST FAN:-</b> Single phase, 300mm sweep, 900 rpm, metallic exhaust fan of the following single phase 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 12mm plywood complete in all respect make as under: CG/USHA/ ORIENT/HAVELLS/ ALMONARD/ALSTOM <b>Basic Rate - Rs. 1550/-</b>	2	Nos		
19	<b>WALL FAN:- (Only Metallic Body)</b> Oscillating wall fan with regulator i/c connection etc complete as required as per approved make sweep 400/450 mm , RPM 1300 make are as under: CG/USHA/ORIENT/HAVELLS <b>Basic rate - Rs. 3000/-</b>	4	Nos		
20	<b>OUTDOOR TYPE GLOW SIGN BOARD WIRING</b>				
a.	Supply laying of Main line with 2x2.5 + 1x1.5 Sq.mm through MS conduit from main panel	Mtr.	25		
b.	To Glow Sign Board				
	Supply installation of 16 Amp. DP MCB at main entrance Glow sian Board with Timer of reputed make	Nos.	1		
21	<b>SUB TOTAL (A) ELECTRICAL WORKS</b>			<b>Rs.</b>	



(B)	<b>AIR CONDITIONING WORK</b> Supply, installation, testing and commissioning of following AIR CONDITRIONERS as under. The Rate shall be inclusive of all taxes excluding GST. GST will be paid additionally by the Bank as applicable subject to GST Number and system has complete one year warranty & If any additinal warranty provided by company/vendor in any specific part like compressor etc that is acceptable,				
22	Supply, installation, testing and commissioning of Higher Efficient models of SPLIT AC, FIVE STAR RATING OF BEE AIR CONDITIONERS 1.0 Ton Machines confirming to latest Indian Standards and suitable for operation on 230 Volts + 10 %, single Phase, 50 Hz AC supply with rotary compressor, Refrigerant and capable to perform cooling, dehumidifying, Air Circulating, auto mode, auto swing, anti bacteria filtering, ventilation and with remote control with Cool/Fan/Dry/Auto mode, sleep mode & on/off timer with suitable thermostat. The rate should include installation charges after making appropriate changes in existing false ceiling. Heavy ready made/fabricated M S Stand to house the out door unit as per site conditions including carpentry work, minor civil work and material including copper piping of hard & prime quality of min. 22 G upto 5 metres with class "o" Nitrile insulation 12mm , cabling from indoor to outdoor unit, heavy gauge PVC drain piping with insulation as per site requirement.	1	Nos		
	copper piping, drains piping and electrical cabling should be fixed with clamps and no loose piping/cabling is allowed. The out door unit should be anti-rust powder coated. Indoor unit should have LED display. The rates inclusive of all repairs of civil and carpentry work The cost includes original fill and additional top up of refrigerant gas as per site condition. The rate inclusive of all chisel work, plastering, finishing, painting & all civil related work pertaing to mentioned work.				
23	Supply, installation, testing and commissioning of SPLIT AC, FIVE STAR RATING OF BEE AIR CONDITIONERS 1.5 Ton (5 star) Machines confirming to latest Indian Standards and suitable for operation on 230 Volts + 10 %, single Phase, 50 Hz AC supply with rotary compressor, Refrigerant and capable to perform cooling, dehumidifying, Air Circulating, auto mode, auto swing, anti bacteria filtering, ventilation and with remote control with Cool/Fan/Dry/Auto mode, sleep mode & on/off timer with suitable thermostat. The rate should include installation charges after making appropriate changes in existing false ceiling. Heavy ready made/fabricated M S Stand to house the out door unit as per site conditions	3	Nos		
	carpentary work, minor civil work and material including copper piping of hard & prime quality of min. 22 G upto 5 metres with class "o" Nitrile insulation 12mm , cabling from indoor to outdoor unit, heavy gauge PVC drain piping with insulation as per site requirement. The copper piping, drains piping and electrical cabling should be fixed with clamps and no loose piping/cabling is allowed. The out door unit should be anti-rust powder coated. Indoor unit should have LED display. The rates inclusive of all repairs of civil and carpentry work The cost includes original				

	fill and additional top up of refrigerant gas as per site condition. The rate inclusive of all chisel work, plastering, finishing, painting & all civil related work pertaining to mentioned work. Make of ACs:-Daikin/Hitachi/Voltas/Bluestar/Carrier				
24	Removing, servicing and refixing of the existing AC unit complete as directed by the Bana Engineer as required.	6	Nos		
25	Supply and installation of soft & prime quality of min. 22 G Copper pipe for " Split AC only" with class "o" Nitrile insulation of minimum 12 mm for split air conditioner including interconnection power/ communication cable between indoor and outdoor unit as per site requirement. ( If required additionally, payment will made as per actual installtion. The rate inclusive of all chisel work, plastering, finishing, painting & all civil related work pertaining to mentioned work. Make of Insulation:- Superlon/Aflex/Armacell/Kflex Make of cable:- Finolex/RR/Havells	100	Mtr		
26	Drain Pipe (If Required additional) Applicable to both ACs (Cassette & Split AC). Supply and laying of heavy gauge PVC drain piping of 40mm with insulation as per site requirement with its all accessories like bend, solution etc as per site condition. The rate inclusive of all chisel work, plastering, finishing, painting & all civil related work pertaining to mentioned work. (If required additionally, payment will made as per actual installtion.) Make:- Kasta/supreme	80	Mtr		
27	Providing & fixing of <b>4 KVA</b> Voltage stabilizer with time delay option including all accessories with installation at site ( For 1Tr /1.5Tr Split AC & 1.5 Tr Cassette AC) Make:-Microtek, V-Gards (Voltage Range 150- 280 Volts)	4	Nos		
28	Electronic Timer for auto swith on/off to AC of server/ATM/E-lobby for 4Hr/8Hr. Make:- Legrand, L&T, and other Eq. ISI make	1	Nos		
29	<b>SUB TOTAL:- (B) AIR CONDITIONING WORK</b>			<b>Rs.</b>	
30	<b>GRAND TOTAL=(A+B)</b>			<b>Rs.</b>	
	<b>Add GST @ 18%</b>			<b>Rs.</b>	
	<b>Total</b>			<b>Rs.</b>	

**In words**

Date:

Seal & Signature of the Contractor