## BOQ OF ELECTRICAL WORK IN EXISTING BRANCH PREMISES OF "SBI" COLLECTORATE BRANCH, RBO - BILASPUR C.G.

	NBO - BIEAGI GIT G.G.				
S.N o.	Description of Item	Qty	Unit	Rate	Amount
	Part A : Electrical Works :				
1	ELECTRICAL WIRING				
	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 FRLS WIRE insulated copper conductor single core multi strended 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 requirment 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 shuold 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 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/chiesling, replastering, curing, painting with uniform and smooth finish by specilised workman ship 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				
	Make of Material for items of BOQ:-  (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:- Finolex/RR cable/ Havells				
i	Providing and fixing of point wiring with above specifications. <b>One light point</b> controlled by one switch.	93	Nos.		
ii	Providing and fixing of point wiring with same above specifications. <b>Two light points</b> to be controlled by one switch.	20	Nos		
2	Call bell point with ceiling rose/ 6amp. 3 pin socket controlled by one 6 amp. Push Modular switch. With call bell		Nos		
	Providing and fixing of <b>Ceiling fan</b> point controlled as under (i) one 6 amp switch (ii) one no stepped electronic regulator of two module type.	20	Nos.		
	Providing and fixing <b>6 Amps Plug Points</b> with same specs as above and install along with same light switchboard		Nos		
_	6 amp. Modular switch as serial no 1 on seperate Board using 2*2.5 + 1*2.5 Sqmm Copper Conductor FRLS wires from DB to first 6A, 5 Pin modular socket controlled by one 6A switch and looped to the nearest second point with same 2*2.5 + 1*2.5 Sqmm copper conductor wires FRLS insulated 1100V grade (max 3 points per circuit).		Nos		
6	Same as serial no.1, but wiring for <b>16 Amp, 6-pin sockets</b> by using 2*4 sq.mm. PVC insulated 1100 V grade copper conductor wire with independent 1* 4.0 sq.mm earth wire from D.B. to first point 1 <sup>st</sup> socket and 1 <sup>st</sup> to 2 <sup>nd</sup> , socket with 2*2.5 sq.mm. and 1*2.5 earth wire including providing and fixing of 16 Amp, 6 –pin socket with 16 Amp. Switch. (Modular type switch/ socket/ plate etc. complete assembly) max 2 points per circuit.		Nos		

7	SPECIAL POINTS: (For Computers). 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 site 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 beolw)		Nos	
8	AC & Power Point (Single Phase). Supply, Installation, Testing and commissioning of the surface / recess mounting A.C. / GEYSER power point with the followings: Metra Plug and Socket DBs with one Nos 20 Amp SP MCB, 20 Amp plug and socket with complete Enclosur plate and box 1 set i/c electrical connections and making good all the damages, painting, cleaning the site etc complete including all accessories as required as per site requirement and as directed by Bank Engineer. OR Modular 32A DP 1 way switch with plate & box 1 set. + 25A & 10A twin socket (Only one point is connected with one circuit as mentioned below)	12	Nos	
9	AC Point (Three Phase). 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 connected with one circuit as mentioned below) including 5 X 4 Sqmm. Copper multistrend FRLS wire in suitable size of 16 SWG (MMS) steel conduit (For Cassettee AC)	7	Nos	
10	CIRCUIT WIRING:(FRLS WIRE) Supply, installation, testing & commissioning of FRLS circuit wiring measured in numbers with suitable size of MS conduit 1.6 mm thick and 25mm dia. The wiring in MS conduit is as per IS code. The average length of wiring around between(25-30) Mtr.			
а	3 X 2.5 sqmm (For UPS Circuit/6 amp Separate Board) in suitable size of 16 SWG (MMS) steel conduit as per IS code.	42	Nos	
b	3 X 4.0 sqmm ( For 1 ton, 1.50, 2.00 & 2.00 Cassette AC / PowerCircuit ) in suitable size of 16 SWG (MMS) steel conduit as per IS code.	12	Nos	
С	5 X 4 Sqmm. Copper multistrend wire in suitable size of 16 SWG (MMS) steel conduit ( For 3 TON Cassettee AC)	110	R.Mtr	
44	MAIN DANEL AND METER DOADD			
11	MAIN PANEL AND METER BOARD  All MCB to be "C" series			
	IAII MCB to be "C" series			

	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 enclousure and doors, 3mm thick for gland plates with stiffers where required, having vibration free structure chemically treated with seven tank process before painting for surface treatmentand 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. (The board shall be dust & vermin proof with suitable degree of IP protection)			
	NOTE: All switchgears Ics shall be equal to 100% Icu Sheet 14 swg: panel side upper, lower and Ft. doors. Sheet 16 swg: back side and compartments. Gland plates: 3 mm thick. Cable entry: Provision at bottom and upper sides. The above panel belongs following as under: B.INCOMING SWITCHGEARS: (RYB LED Indicators for Both Main/DG) (i) 1 No. FP.160 Amp, 25 KA MCCB with thermal magnetic trip unit WITH Digital Voltmeter & Digital Ammeter sutiable size of CTS, selector switches etc. C. OUTGOING SWITCHGEARS: (i) 1 Nos- 125Amp TP MCCB for main with 200amp bus bar with indicator. (ii) 160 amp onload changeover with 1 Nos 125 amp 25 KA, TP MCCB for DG supply with 200 amp bus bar with indicator (iii) 200 amp bus bar for parallel connection with DG changeover output ( Note:- Before Placing the Panel order, firstly it Passed by The Bank Authority, otherwise it will not considered) ( Note: Before Placing the Panel order, firstly it Passed by The Bank Authority, otherwise it will not considered)			
		1	Set	
a	SDP(Surge Protector Devicve)	1	Set	
u	Supply & Installation of SDP(Surge Protector Devicve) for general protection of main Distribution Board Legrad Make Cat No. 412247 (3P+N), 40 KA, T2- Imax 40KA/pole with complete wiring.		Oct	
	6-way TPN DB (LIGHT DB)	2	Set	
b	Incomer:-		Set	
	1 No. 32 Amp TPN (10 KA) MCB with 40 A DP RCCB (100 MA) each phase			
	Outgoing:-			 
	10-12 Nos.6/10/25 Amp (10 KA) SP MCB			
	A way TON DD / DOWED DD)			
С	4-way TPN DB ( POWER DB) Incomer:-	2	Set	
	1 No. 63 Amp TPN (10 KA) MCB			
	Outgoing:-			
<b>—</b>	10 Nos.16 Amp (10 KA) SP MCB			
	10 1.05.1.07 mile (10 10 t) 01 miles			
d	4-way V-TPN DB (LIGHT )	1	Set	
<u> </u>	Incomer:-	•		
	1 No. 80 Amp 4 Pole (16 KA) MCCB			
	Outgoing:-			
	4No. 40 Amp (16 KA) TP MCB			
	5 Nos. 25 Amp (10 KA) SP MCB			

е	8-way V-TPN DB (AC)	2	Set	 
	Incomer:-			
	1 No. 80 Amp 4 Pole (16 KA) MCCB			
	Outgoing:-			
	4No. 40 Amp (16 KA) TP MCB			
	5 Nos. 25 Amp (10 KA) SP MCB			
f	4-way TPN DB UPS ROOM	2	Set	
	Incomer:-			
	1 No. 63 Amp TPN (10 KA) MCB with 40 A DP RCCB (100 MA) each			
	phase			
	Outgoing:-			
	2Nos. 40 Amp (10 KA) DP MCB, For UPS outgoings tto individual SDB			
	42 way CDN DD (For LIDS Cub DD)	0	C-4	
	12-way SPN DB (For UPS Sub DB) Incomer:-	2	Set	
	1 No. 40 Amp DP (10 KA) MCB with 25 A DP RCCB (100 MA)			
	Outgoing:-			
-	8-10 Nos.6/10Amp (10 KA) SP MCB			
	0-10 NOS.0/TOAITIP (10 KA) SP MCB			
h	KIT KAT 300 AMP.	1	Set	
h	Providing and fixing of Kit Kat Rewirable Porcelian fuse carrier & base		Set	
	with wooden frame of 300 amp/415 Volt near meter box			
12	CABLES			
•-	Supplying, unloading, storage, laying, testing and commissioning of			
	PVC/XLPE insulated (Heavy Duty) Al/Cu conductor armoured cable			
	suitable for working voltage upto and including 1100 V grade, laid and			
	tied on existing overhead cable trays, or laid and tied over MS supports			
	in masonry trenches with copper/al cable lugs, single compression brass			
	cable glands, tapping, crimping etc. as required and all cables run with			
	double run( 2 No.) of GI wire of 8 SWG size. The size of cables are as under:-			
	Make of Material:-			
	(i) PVC/XLPC Armoured cable:- Finolex, Havells, RR cable, CCI(Cable			
	Corp. of India)			
	(ii) Cable Termination:- Dowells, Comet			
l i	3.5 X 50 Sq.mm XLPE. Al. armoured Cable (AC VTPN, BUS BARS &			
'	A.C. DB )/Main cable	50	Mtr	
	Supplying, laying, testing & commissioning of <b>4 C X 10</b> sq.mm. at 1100		iviti	
	volts grade PVC insulated copper conductor armoured cable with 10			
ii	gauge earth copper wire including cables end termination using			
	appropriate Lugs, Glands, termination acessories, Clamps etc. as			
	required as per specification from <i>Main board to UPS Room</i>	70	Mtr	 
	Supplying, laying, testing & commissioning of 4 C X 25 sq.mm. at 1100			
<b> </b>	volts grade PVC insulated aluminum conductor armoured cable with 10			
liii	gauge earth copper wire including cables end termination using			
	appropriate Lugs, Glands, termination acessories, Clamps etc. as required as per specification <i>Pane to (POWER/UPS) DB</i>	80	Mtr	
	Supplying, laying, testing & commissioning of <b>4 C X 16</b> sq.mm. at 1100		ivití	
	volts grade PVC insulated aluminum conductor armoured cable with 10			
iv	gauge earth copper wire including cables end termination using			
	appropriate Lugs, Glands, termination acessories, Clamps etc. as			
	required as per specification (Light DB).	70	Mtr	
	Supplying, laying, testing & commissioning of 4 C x 50 sq.mm. at 1100			 
	volts grade PVC insulated aluminum conductor armoured cable with 10			
V	gauge earth copper wire including cables end termination using appropriate Lugs, Glands, termination acessories, Clamps etc. as			
	required as per specification ( <i>Mains</i> ).		N /1+	
	indiano,	20	Mtr	

COPPER PLATE EARTH STATION: Preparation of the Plate Earth Station: (As per IS:3043) (a) Excavation of hard rocky earth, soft murrum, hard murrum etc and back filling with black cotton soil for the earth station, the earth pit size is	
Preparation of the Plate Earth Station:( As per IS:3043)  (a) Excavation of hard rocky earth, soft murrum, hard murrum etc and back filling with black cotton soil for the earth station, the earth pit size is	
1000 mm X 1000 mm X 2500 mm.  (b) Supply and fixing of Copper Plate of Size 600 mm X 600 mm X 3.0 mm thick.  (c) Fixing of 50 mm X 6 mm, 3 Mtrs copper strips from Copper Plate to earth terminal including brazing/welding at plate etc.  (d) Supply and laying in position 19 mm, 2 Mtrs G.I "B" Class pipe for watering with reducer/funnel with mesh.  (e) Supply and Fixing of the following in the earth station.  (i) 75 Kg. Charcoal.  (ii) 15 Kg. Original Salt.  (iii) Black Cotton soil of adequate amount.  (f) Construction of earth pit chamber including necessary brick work concrete, plastering, S/F of C.I Cover of size 12" X 12" complete as per site requirment.	
G.I.PLATE EARTH STATION:  Preparation of the Plate Earth Station: (as per IS:3043)  (a) Excavation of rocky earth, soft murrum, hard murrum etc and back filling with black cotton soil for the earth station, the earth pit size is 1000 mm x 1000 mm x 2500 mm deep.  (b) S/F of G.I. plate of size 600 x 600 x 6.0 mm thick.  (c) S/F fixing 50 mm x 6 mm, 3 mtrs G.I, strips from G.I.plate to earth terminal including brazing / welding at plate etc.  (d) Supplying and laying in position 19 mm, 2 mtrs G.I. `B' class pipe for watering.with reducer/funnel with mesh.  (e) S/F of the following in the earth station.  75 Kg. Charcoal, 15 Kg. Original Salt. and Black Cotton soil of adequate amount.  (f) Construction of earth pit chamber including necessary brick work concrete, plastering, S/F of C.I. Cover of size 12" x 12" complete as per site req.and marking its value & identification etc.	
d Providing and fixing of Copper / GI strips in surface or in recess for loop earthing etc. as required.	
i 25 mm x 3 mm copper strip with proper clamps 60 Mtr	
ii 25 mm x 5 mm GI strip 45 Mtr	
iii Providing and fixing 2 X 8 SWG dia. Cu earth wire in PVC conduit on surface or in recess for loop earthing along with the existing surface/	
recess cable as required. 90 Mtr	
e OCCUPANCY SENSORS:- Supply, installation, testing and commissioning of occupancy sensor surface/recess mounted 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 OR Equivalent as per Bank's approved.  3 Nos	
<u> </u>	
14 TELEPHONE POINT	

(i)	Two pair, 0.61 mm dla. 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 <b>35</b> <i>meter length</i> 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/ sheet steel/PVC box 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 shuold 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.  Make of Material:- Delton/Finolex/RR cable	19	Nos	
(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 accessible. (A) 20 Pair tag block		Nos	
15	DATA CABLING FOR LAN			
а	Providing, fixing, testing and commissioning of all nodes of four pair UTP CAT 6 LAN cables length upto <i>30 meter length</i> or less as per site conditionin 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 shuld 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 cable, Switch, Jack panel, Rack, Patch cords & Other accessories:- D-Link, Legrand	26	Nos	
b	Providing and fixing Patch Panels 30 port (100 base TX) CAT 6 patch/jack panel with connector, out lets and necessary connectivity complete as required & (D-Link make)		Nos	
С	Providing, assembling, fixing, testing and commissioning Floor/Wall mounted RACKS for gig switches, patch panels etc including cooling DUAL fan trays, a 10 Point PDU, Fixed Trays as necessarycomplete. 9 U wall mounted RACK	1	Nos	
d	Providing and fixing of flowing factory fabricated Patch cords. (UTP/CAT 6 complte with connector on both side.)			
i)	for 1 Mt. long	26	Nos.	
ii)	for 2 Mt. long	26	Nos	
e	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.  TV POINT:-Supply, installation, testing and commissioning of TV	50	Mtr	
16	point(Modular) with RG-6 cable in the Medimum Gauge 1.6 mm PVC Conduit with all accessories complete in all respect	1	Nos	
17	Supply and installation of Vinyl sticker for on Electrical DBs like, " Switch Off at Night", Switch Off For Safety, etc	10	Nos	

	Making & Providing of 3 sets of Asbuilt Drawing with coloured print for entier Electrical work (Power/UPS/Light/Data/ Telephone/AC etc.) as		Lum	
	advised by the Bank's Authority.	1	sum	
	Description of light /fan fixture  LED LUMINARES:- 2' x2' (FULL GLOW TYPE)			
19	LED light fittings (600 X600mm) dimension suitable for grid/gypsum ceiling complete with its electrionic driver as required per instruction of Bank's Model No are as under:- PHILIPS:- RC380B G2 LED 35S-6500 PSU OD WH LED (FULLGLOW) WIPRO:- CRCO1ORO 38 HP57 HAVELLS:- LHECDIL7IL1W036 (Edge- Lit) CG:- LCTAR3-40-CDL			
		38	Nos	
20	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,	34	Nos	
21	LED Spot Light, 3 Watt, 2/3"(Inches) size as per site requirment.			
<u> </u>	PHILIPS, WIPRO, HAVELLS, CG  LED COVE / STRIP LIGHT WITH ITS ELECTRONIC DRIVER( BLUE	9	Nos	
22	COLOUR):- Supply, installation, testing and commissioning of bright LED strip light with its electronic driver complete as required. PHILIPS, WIPRO, HAVELLS, CG	110	Mtr	
	Providing & fixing of "Digital Clock" /Digital Panel indicating Time,	110	IVILI	
23	Day, Date, Temperature at outside of big size,(Ajanta - OLC-1070) as suitable over the facade as advised by the Bank with standard power back up. Make:- Ajanta, Titan	1	Nos	
24	BOX TYPE LUMINAIRES: LED TUBE FITTINGS, 1200mm, 18/20 Watt - PHILIPS/WIPRO/HAVELLS/CG	20	Nos	
25	<b>External Street LED Light</b> - Providing & Fixing of 30 watt LED light fixture, pressure die cast aluminium housing, heat resistant glass, IP 65 protection & better optics for uniform distribution. PHILIPS, WIPRO, HAVELLS, CG	8	Nos	
25	CEILING FAN: FIVE STAR RATING BLDC FAN 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 CG/ USHA/ ORIENT/ HAVELLS	20	Nos	
26	WALL FAN:-( Only Metallic Body ) Oscillating wall fan with regulator i/c coonections etc complete as required as per approved make, Sweep 400/450 mm, RPM 1300 make are as under: CG/USHA/ ORIENT/HAVELLS			
27	EXHAUST FAN:- 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 12 mm plywood complete in all respect make as under: CG/USHA/ ORIENT/HAVELLS/ALMONARD/ALSTOM	6	Nos	
	Sub Total : Part A (Electrical Works)			
	Total : Part ( A )			
	TOTAL ( Excluding GST)			

Note:- The rates quoted includes all other taxes, duties, loading, unloading, transportation, other expenses etc to site.				
GST will be paid additionally as applicable	+			
	Spal & S	ianatur	of Contract	or
	Seal & S	ignature	or Contract	OI