

COMPUTER CENTRE (LIBRARY BUILDING)			
SUMMARY			
S.No.	Part	Description	Amount
1	A	CIVIL & INTERIOR WORKS	-
2	B	INTERNAL ELECTRICAL WORKS	-
3	C	HVAC WORKS	-
4	D	FURNITURE	-
TOTAL ESTIMATE (Inc. of GST)			-
TOTAL ESTIMATE (Exc. of GST)			-

COMPUTER CENTRE (LIBRARY BUILDING)							
SUMMARY OF COST FOR CIVIL & INTERIOR WORKS							
S.No	DESCRIPTION				DSR Item 2021	Market Rate Items	
A	DISMANTLING AND DEMOLISHING				-	-	
B	PARTITION WORK				-	-	
C	FLOORING WORKS				-	-	
D	FALSE CEILING WORKS				-	-	
E	FINISHING WORKS				-	-	
F	DOORS AND WINDOWS				-	-	
G	SIGNAGE				-	-	
H	MISCELLANEOUS				-	-	
	TOTAL OF CIVIL & INTERIOR WORKS				-	-	
	GST 18 extra on Market Rate Items				-	-	
	TOTAL OF CIVIL & INTERIOR WORKS				-	-	
	TOTAL OF CIVIL & INTERIOR WORKS				-	-	
Sl. No.	DESCRIPTION	Qty	UNIT	RATE (in Rs)	DSR AMOUNT (in Rs)	MR AMOUNT (in Rs)	Item Rate Basis
A	DEMOLITION / DISMANTLING						
1	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead						DSR Item 15.12
1.1	Of area 3 sq. metres and below (Door)	17.00	Each		-		DSR Item 15.12.1
1.2	Of area beyond 3 sq. metres (Door)	2.00	Each		-		DSR Item 15.12.2
2	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	865.00	Sqm		-		DSR Item 15.57
3	Demolishing of Furniture including Fixed sofa seating, work stations in computer labs, operation labs. stacking of serviceable material and disposal of unserviceable material with in 50 meters lead.	1.00	L.S.			-	Market Rate
4	Dismantling of Wooden work such as wall mounted storages, pantry cabinates and disposal of unserviceable materials with in 50 m lead.	1.00	L.S.			-	Market Rate
5	Dismantling of Vinyl Flooring by Removing old adhesive from underneath the vinyl with floor scraper while Removing excess vinyl and adhesive with utility knife, and disposal of unserviceable material and stacking of serviceable material with in 50 meters lead.	545.00	sqm			-	Market Rate
6	Dismantling Electrical Conduits and wires removing and refilling after taking out the pipes, manually / by mechanical means including stackig of pipes within 50 metres lead as per direction of Engineer-in-Charge.	1.00	L.S.			-	Market Rate
7	Removing of HVAC and MEP items like CCTV cameras, Lighting Fixtures From ceiling, Sockets, fans, A.C. units, fire detectors , smoke detectors etc. While stacking of serviceable Items and disposal of unserviceable Items.	1.00	L.S.			-	Market Rate
8	Removal of Notice boards, Blinds/curtains or other kind of fabric item/items and stacking of serviceable Items and disposal of unserviceable Items.	1.00	L.S.			-	Market Rate
	TOTAL OF DEMOLITION / DISMANTLING WORK				-	-	

B	PARTITION WORK						
1	Providing and fixing metal system up to slab height, which includes frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 GSM, consisting of U track 52mm wide having equal flanges of 30mm and 0.55mm thick (Base metal thickness) fastened to the floor slab and ceiling soffit using rawl plugs with screw at 600mm centers, with first & last fixing point at not greater than 50 mm from either end. C studs 50mm wide having one flange of 34mm, other flange 36mm, lip size 6 mm and 0.55mm thick installed perpendicularly within the flanges of floor and ceiling channels located directly opposite to each other at not more than 610mm centers. Maintain 5 to 10mm gap between C Stud and web of U Track.	630.00	Sqm			-	Market Rate
2	Providing and fixing Glass wool insulation with Resin Bonded conforming to IS: 8183, 50mm thickness having density 32kg/m3, for 75mm thick partition wrapped in 200G Virgin Polythene Bags fixed to wall with screw, rawlplug & washers and held in position by criss crossing GI wire etc. complete as per directions of Consultant.	630.00	Sqm			-	Market Rate
3	12.5 mm Standard board (conforming to IS 2095 Part1 1996; BS 1230: Part1: 1985 for Gypsum Board Type 1 & BS EN 520: 2004 Type A) is screw fixed to metal system on both sides using "type S" Self tapping 3.5 x 25mm corrosion resistant drywall screws spaced at 200mm centers on all joints and 300mm centers in the field of boards. Screw fixing is done mechanically. Finally, boards and screw heads are to be jointed and finished so as to have a flush look which includes filling tapered edge and square edges of board with Rapid Joint Compound, Paper Tape (As per recommended practice). All perimeters and penetrations to be sealed with Acrylic sealant as per manufacturer's specifications.	428.40	Sqm			-	Market Rate
4	Providing and fixing 12mm thick commercial ply with necessary screws/nuts & bolts/ nails, including a coat of approved primer and anti-termite on one face, and fixed on GI frame work, complete as per direction of Consultant (Frame work shall be paid for separately).	831.60	Sqm			-	Market Rate
5	P/f of frameless partition glazing consisting of 12mm clear toughened glass (Saint gobain/ Modi make) and fixing with Dorma/Ozone make single leg spider, ceiling/bottom to glass connector, glass to glass connector, etc, all the necessary fittings upto all height including scaffolding all complete as shown in attached drawing as per the direction of Engineer-in-charge.	50.00	Sqm			-	Market Rate
	TOTAL OF PARTITION WORK					-	-

C	FLOORING WORK					
1	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm . Extra for grouting the joints with epoxy grout.					DSR NO.- 11.41
1.1	Size of Tile 600x600 mm	450.00	Sqm		-	DSR NO.- 11.41.2
1.2	Size of Tile 600x600 mm (Pattern)	32.00	Sqm		-	DSR NO.- 11.41.2
2	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3 kg/ sqm.	482.00	Sqm		-	DSR NO.- 11.42
3	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	482.00	Sqm		-	DSR NO.- 11.43
4	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.					DSR Item 11.48
4.1	Size of Tile 600x600 mm	482.00	Sqm		-	DSR Item 11.48.2
5	Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings, as specified and as directed by Consultant consisting of :					DSR Item 11.54
	a) Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mmx100mmx3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.					
	b) S tringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid, rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc. all complete as per the architectural drawings, as specified and as directed by the Consultant.					
	c) Providing and fixing Access Floor panel of 600x600x30 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corroresist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm. The panel is to withstand a Concentrated Load of 363 kgs applied on area 5mm x25mm without collapse in the centre of the panel which is placed on four steel blocks. The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Consultant. All specification must be printed on the side of the panel to ensure the quality of the product.					
5.1	300MM FINISHED FLOOR HEIGHT (FFH).(Server Room)	12.00	sqm		-	11.54.1
6	Vinyl Flooring Supply and installation of 3mm vinyl flooring The vinyl flooring that should be used is of a light wood in colour and texture. It must have the following specifications: -Abrasion group according to EN 660-2 Group T -Level of Use according to EN 685 level 23-33 -Castor Chair resistant according to EN 425 [based on castor type W/ Type PJ] according to EN 12529 -Slip resistance according to 13893 must be DS level The product must have at least a 5 year warranty on material and installation. You may be asked to provide a sample of the product after submittal of offer. (HOD, Teacher's Cabin, Assistant Teacher's Cabin) BSP 60/sqft.	84.00	Sqm		-	Market Rate
	TOTAL OF FLOORING WORK				-	-

D	FALSE CEILING WORK						
1	<p>Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm</p> <p>interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>					-	DSR- Item No.- 12.45
1.1	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) :2011 (Board with BIS certification marks)	375.00	sqm			-	DSR Item 12.45.1
2	<p>Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid</p> <p>including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.</p>						DSR Item 12.52
2.1	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS: 2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	210.00	sqm			-	DSR Item 12.52.4
TOTAL OF FALSE CEILING WORK						-	-

E	FINISHING WORK						
1	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour						
1.1	Three coats	695.00	Sqm			-	Market Rate
2	Ceiling painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour						
2.1	Three coats	375.00	Sqm			-	Market Rate
3	Providing and fixing 1mm thick Laminate(as approved) on existing ply partition and with painted horizontal and vertical grooves to match colour of laminate (as approved), for plain lining / cladding with surface as per drawings & directions of Consultant.. Base Rate Rs. 50/- per sqft	368.00	Sqm			-	Market Rate
4	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	30.00	Sqm			-	DSR Item DSR Item 8.31
5	Providing and finishins (POP) Plaster of Paris punning over plastered wall surface to be finish inline and plumb with smooth surface ready to receive paint base .	170.00	Sqm			-	Market Rate Item
6	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting , riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).						Item derived from DSR NO.-11.47
6.1	Size of Tile 600x600 mm	30.00	Sqm			-	Item derived from DSR NO.-11.47.2
TOTAL OF FINISHING WORK						-	-

F	DOORS & WINDOWS						
1	<p>Providing & fixing of Single/Double leaf single swing flush door 38mm thk of approved make, finished with 1mm thick laminate of approved make & colour on both sides. The shutter edges shall be lipped in 8mm thick approved timber beading melamine polished.</p> <p>Hardware : one no SS mortise lock of Dorma / Geze / Equiv with , 4nos ss bearing hinges of Dorma/ Geze make , door closure of aproved make, one no floor mounted SS door stopper.</p> <p>Frame : Frame should be formed out of 50mm X 100mm approved timber melamine polished with 38mm wide x 12mm deep rebate.</p> <p>Fixing of Frame : Frame should be fixed to masonry wall using M.S holdfast / for partitions using wooden screws with clear anti-termite treatment for the conceled portion frame.</p>						Market Rate Item
1.1	Single Leaf - 750mm X 2150mm	1	Nos.			-	
1.2	Single Leaf - 900mm X 2150mm	6	Nos.			-	
1.3	Single Leaf - 1000mm X 2150mm (Vision Panel 100 x 950 mm)	3	Nos.			-	
1.4	Double Leaf - 1250mm X 2150mm (Vision Panel 100 x 950 mm)	1	Nos.			-	
1.5	Double Leaf - 1500mm X 2150mm (Vision Panel 100 x 950 mm)	3	Nos.			-	
2	<p>Providing and fixing 12 mm thick frameless toughened glass door shutter , including providing and fixing top & bottom pivot & double action hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Consultant. (Door handle, lock and stopper etc.to be paid separately).</p>						Market Rate Item
2.1	Single Leaf - 900mm X 2100mm	10.00	Nos.			-	
2.2	Single Leaf - 1000mm X 2100mm	1.00	Nos.			-	
2.3	Double Leaf - 1500mm X 2100mm	1.00	Nos.			-	
3	<p>Providing and fixing of 10mm thk toughned fixed glass window/glazing in Ply/Gypsum partitions with all necessary fittings and hardwares to be fixed in MDF beading.</p>						Market Rate Item
3.1	1200 x 1050mm	15.00	Nos.			-	
3.2	3600 x 600mm	1.00	Nos.			-	
4	<p>Providing and fixing 12mm thk MDF beading for fixing glass partitions and frameless glass windows in ply/gypsum partitions with iron screws, plugs and priming coat on unexposed surface etc. to be finished in paint as per approved shade.</p> <p>Size 80 x 20 mm</p>	140.00	Rmt			-	Market Rate Item
	TOTAL OF DOORS & WINDOWS					-	-

G	SIGNAGE						
1	Supply and installation of Signage plate for Cabin/Service room/Cafe/Meeting Rooms Names of Size 300 mm x 120mm x 1.5 mm in PVC finish having Letters engraved/printed on Black vinyl steam pressed to get a clean finish and having font size of name atleast 20 mm and font size of designation 16 mm fixed on to the wall or Door surface with high quality adhesive tape of 3M or as per approved make complete to the satisfaction of Consultant.	22.00	Nos.			-	Market Rate Item
2	Providing and Fixing the Fire Exit Signages made up of Rigid integral PVC Cladded with Photo luminiscent (Glow in Dark) material with computer cut vinyl lettering on it. Double sided and Single sided.As per Consultant Instruction. Fire makes and codes- readily available Make: Prolite	3.00	Nos.			-	Market Rate Item
3	Providing and fixing PUSH/PULL signage for Glass doors	12.00	Nos.			-	Market Rate Item
TOTAL OF SIGNAGE						-	

H	MISCELLANEOUS						
1	Providing and fixing pelmets to Blinds made of 19 mm thick BWP ply, having clear internal dimensions as 150 x 200mm, finished in approved laminate on all exposed surfaces from all external surfaces and balancing laminate on all internal surfaces, supported from RCC ceiling slab by necessary framework, giving additional supports in MS angles etc. complete. All exposed edges to be finished in 5mm thick TW beading and finished in approved colour.	28.00	metre			-	Market Rate Item
2	Providing & fixing vertical blinds 100mm wide of washable synthatic material with extruded powder coated hearail housing control units spacers, runners, tilt rod with reduction gear mechanism tilt control for 180 degree Louvers made of approved fabric and colour having scratchgurd coating to be provided. Make - Vista	30.00	Sqm			-	Market Rate Item
3	Providing & fixing printed frosting film of 3M make with approved image printed on the film as per design & installed over the glass partition as per manufacturer's specification & installation guidelines. Vendor shall include wastage while quoting. Vendor shall provide 10 year warranty as per manufacturer's guidelines. BSP Rs. 900/- sqm	20.00	Sqm			-	Market Rate Item
4	Providing and fixing pinup boards. It consist 12mm thick soft boards of good density to be mounted over 12mm thick comm. ply. The soft board will be covered with a plain fabric (approx Rs.250 /Rmts. of approved colour) from front and edges. Suitable steam beach moulding 25mm x 25mm size to be fixed on all four sides and will be finished in melamine polish.	8.00	Sqm			-	Market Rate Item
5	Providing, supply and fixing in place ceramic white writingboard 19m thk. of size 8' x 4' with all round aluminium edge beading. The writing board shall be provided with a 2" x ½" thk. Beech wood beading all round so as to cover the aluminium edge beading and also to hold the board in place. The rate shall be inclusive of polishing the beech wood members and also finishing the same with a coat of melamine. Rate to be inclusive of all transport, taxes & duties, loading/ unloading, unpacking, lead & lift, hardware, labour, etc. complete. Melamine: Asian Paints)						Market Rate Item
5.1	SIZE - 1200 X 900 MM	12.00	Nos.			-	
6	Providing and fixing of 6mm thk floor protection sheet or 6mm thk mdf to protect the tile/stone/wooden/carpet flooring.	578.00	Sqm			-	Market Rate Item
7	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of: (i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area. (iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	25.00	Sqm			-	DSR Item 22.3
8	Providing and fixing of 12 to 20 mm MDF board with lazer cut jali pattern fixed over 40x40 mm metal frame on all side, finished in Duco paint on MDF Jali and metal frame both. The entire assembly shall be fixed on top and bottom with necessary supports fixed in ceiling and floor. Cost to be quoted all inclusive.	17.50	Sqm			-	Market Rate Item
TOTAL OF MISCELLANEOUS WORK						-	-

COMPUTER CENTRE (LIBRARY BUILDING)						
SUMMARY OF COST FOR INTERNAL ELECTRICAL WORKS						
S.N o	DSR ITEM NO.	DESCRIPTION				AMOUNT
A		INTERNAL WIRING				-
B		CABLES, MAINS AND SUB MAINS				-
C		CABLE TRAYS				-
D		DISTRIBUTION BOARDS & MCB's				-
E		FIRE DETECTION AND ALARM SYSTEM (CONVENTIONAL)				-
F		PUBLIC ADDRESS SYSTEM				-
G						
		TOTAL INTERNAL ELECTRICAL WORKS				-
		TOTAL INTERNAL ELECTRICAL WORKS WITH 30% ESCALATION IN MARKET AFTER DSR 2019				-
S.N o	MARKET RATE ITEM	DESCRIPTION				AMOUNT
A		SUPPLY & INSTALLATION OF LT PANELS & DISTRIBUTION BOARDS				-
B		CABLES, MAINS AND SUB MAINS				-
C		GI RACEWAY & JUNCTION BOXES				-
D		SUPPLY OF LIGHTING FIXTURES				-
E		INSTALLATION OF LIGHTING FIXTURES				-
F		CONDUITING WIRING AND CABLING FOR TELEPHONE/DATA SYSTEM				-
G		UPS SYSTEM				-
		TOTAL INTERNAL ELECTRICAL WORKS				-
		TOTAL ELECTRICAL (Inc. of GST)				-
DSR ITEMS						

S.No		DESCRIPTION	Qty	UNIT	RATE (in Rs)	AMOUNT (in Rs)
A		INTERNAL WIRING				
1		Point wiring in PVC conduit, with modular type switch :-				
1.a	1.10	Wiring for light/fan points / exhaust fan point/call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit with modular type switch , modular plate, suitable size G.I Box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc as required .				0
	1.10.2	Group B	100	Each		0
	1.10.3	Group C	86	Each		0
2	1.12	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required	1000	Rmt		0
3	1.14	Wiring for circuit/sub-main wiring along with earth with the following size of FRLS PVC Insulated copper conductor , single core cable in surface / recessed medium class PVC conduit as required .				
3.a	1.14.1	2X1.5 sqmm + 1x1.5 sqmm earth wire	8000	Rmt		0
3.b	1.14.2	2X2.5 sqmm + 1x2.5 sqmm earth wire	2500	Rmt		0
3.c	1.14.3	2X4.0 sqmm + 1x4.0 sqmm earth wire	500	Rmt		0
4	1.21	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
4.a	1.21.2	25 mm	3000	Rmt		0
	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required	10	Each		0
5	1.31	Supplying and fixing suitable size G.I box with modular plate and cover in front on surface or in recess including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch connection etc. as required .	450	Each		0
6	1.32	Supplying and fixing suitable size G.I box with modular plate and cover in front on surface or in recess including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch connection etc as required .	40	Each		0
7	1.24.3 & 1.25.5	Supplying and fixing suitable size G.I box with modular plate and cover in front on surface or in recess including providing and fixing 6 pin 15/16 A modular socket outlet and 15/16 A modular switch connection etc as required .	5	Each		0
8	1.27	Supplying and fixing following size / modular G.I box alongwith modular base & cover plate for modular switches in recess etc.as required .				
8.a	1.27.1	1 or 2 module (75mm X 75mm)	45	Each		0
8.b	1.27.2	3 Module (100mmX75mm)	45	Each		0
8.d	1.27.5	8 Module (125mmX125mm)	240	Each		0
9	1	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connection but excluding modular plate etc.as required .				
89a	1.24.6	telephone socket outlet	20	Each		0
10	1.18	supplying and drawing following pair 0.5 sqmm FRLS PVC insulated annealed copper conductor unarmored telephone cable in the existing surface /recessed steel/PVC conduit as required .				
10.a	1.18.2	2 pair	500	Rmt		0
11	1	Supplying and fixing 3 pin 5 A ceiling rose on the existing junction box/wooden block including connection etc as required .	60	Each		0
		TOTAL OF INTERNAL WIRING				0

B		CABLES, MAINS AND SUB MAINS				
1	7.8	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
1.a	7.8.1	Upto 35 sq. mm	200	Rmt		0
1.b	7.8.2	Above 35 sq. mm and upto 95 sq. mm	30	Rmt		0
1.c	7.8.3	Above 95 sq. mm and upto 185 sq. mm	100	Rmt		0
2	9.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
	9.1.7	3 X 10 sq. mm (22mm)	4	Each		0
	9.1.32	4 X 10 sq. mm (25mm)	12	Each		0
	9.1.21	3½ X 35 sq. mm (32mm)	2	Each		0
	9.1.24	3½ X 95 sq. mm (45mm)	2	Each		0
	9.1.25	3½ X 120 sq. mm (45mm)	2	Each		0

		TOTAL OF CABLES, MAINS AND SUB MAINS				0
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C		CABLE TRAYS				
1	4.1	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray cable tray with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.				
1.a	4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	150	Rmt		0
1.b	4.1.4	300 mm width X 50 mm depth X 1.6 mm thickness	30	Rmt		0
		TOTAL OF CABLE TRAYS				0

D.		DISTRIBUTION BOARDS & MCB's				
1	2.4	Supplying and fixing following way horizontal type three pole and neutral MCB distribution board , 415 volts on surface /recess complete with tinned copper busbar , neutral busbar, earth bar, din bar, interconnection , powder painted including earthing etc. as required (but without MCB / RCCB/ Isolators).				
1.a	2.4.1	4 way (4 + 12), Double door	1.00	Each		0
1.b	2.4.2	6 way (4 + 18), Double door	2.00	Each		0
1.d	2.4.3	8 Way (4 + 24) Double door	4.00	Each		0
2	2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board , 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator).				
2.a	2.3.1	6 way, Double door	1.00	Each		0
2.a	2.3.2	8 way, Double door	1.00	Each		0
3	2.10	Supplying and fixing 5 amps, to 32 amps rating 240 volts , 10KA . " C " curve Miniature circuit breaker (MCB) suitable for inductive load of following poles in the existing MCB DB complete with connection testing and commissioning etc. as required .				
3.a	2.10.1	6 A to 32 A ratings , SP MCB,	170.00	Each		0
4	2.14	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 milli amperes in the existing MCB DB complete with connections, testing and commissioning etc. as required				
4.a	2.14.2	40 amps	25.00	Each		0
5	2.15	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 milli amperes in the existing MCB DB complete with connections, testing and commissioning etc. as required				
5.a	2.15.3	63 amps	10	Each		0
		TOTAL OF DISTRIBUTION BOARDS & MCB's				0

		EARTHING SYSTEM				
	5.4	Earthing with G.I earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangements and watering pipe of 2.7 meter long etc. with charcoal/cock and salt as required .	4.00	Set		0
	5.7	Supplying and laying of 6 SWG G.I wire at 0.50 meter below ground level for conductor earth electrode including connection / terminating with G.I thimble Etc. as required .	100.00	Rmt		0
	5.9	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm	100.00	Rmt		0
	5.19	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	50.00	Rmt		0
		TOTAL OF DISTRIBUTION BOARDS & MCB's				0
E.	17.1	FIRE DETECTION AND ALARM SYSTEM (CONVENTIONAL)				
	17.1.1	Supplying, installation, testing & commissioning of heat detector operating at 54°C/ 57°C with rate of rise cum fixed temperature (dual thermistor) type with mounting base complete with all connection etc. as required.	1	Each		0
	17.1.2	Supplying, installation, testing & commissioning of smoke detector with builtin LED and mounting base complete with all connections etc. as required.	20	Each		0
	17.1.4	Supplying, installation, testing & commissioning of manual call box of ABS type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	2	Each		0
	17.1.7	Supplying, installation, testing & commissioning fire alarm sounder with facility to	2	Each		0
	17.5.2	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	200	Rmt		0
		TOTAL OF FIRE DETECTION AND ALARM SYSTEM				0
F.	17.3	PUBLIC ADDRESS SYSTEM				
	17.3.2	Supplying, installation, testing & commissioning of 1.5/3/6W ceiling speaker complete	10	Each		0
	17.3.8	Supplying, installation, testing & commissioning of exit point directional sound speaker with voice and integral audio amplifier with selectable sound pulse patterns complete as required.	2	Each		0
	17.5.3	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.				
	17.5.3.1	Speaker cable Single pair, 2-core, 1.5 sqmm	150	Rmt		0
		TOTAL OF PUBLIC ADDRESS SYSTEM				0

MARKET RATE ITEMS

S.No		DESCRIPTION	Qty	UNIT	RATE (in Rs)	AMOUNT (in Rs)
A.		SUPPLY & INSTALLATION OF LT PANELS & DISTRIBUTION BOARDS				
1	MR	Main Eletrical panel (with incomer 250 amp. TPN MCCB)	1	Each		0
2	MR	UPS Panel (with incomer 100 amp. 4P MCCB)	1	Each		0
2	MR	HVAC Panel outdoor type (with 160 amp 4 P MCCB)	1	Each		0
		TOTAL CARRIED TO SUMMARY				0
B.		CABLES, MAINS AND SUB MAINS				
1	MR	Supplying of following 1100 volt grade XLPE insulated PVC sheathed aluminium conductor armoured cables as per specification in existing trenches, cable trays, ducts over bed of sand, clamped includes anchor fastners wall with suitable clamps, saddles fixing bolts including connecting testing and commissioning.				
1.1	MR	3.1/2 core 120 sq. mm	100	RM		0
1.2	MR	3.1/2 core 95 sq. mm	30	RM		0
1.3	MR	4 core 35 sq. mm	20	RM		0
2	MR	Supplying & laying of following 1100 volt grade XLPE insulated PVC sheathed copper conductor armoured cables as per specification in existing trenches, cable trays, ducts over bed of sand, clamped includes anchor fastners wall with suitable clamps, saddles fixing bolts including connecting testing and commissioning.				
2.1	MR	4 core 10 sq.mm	150	RM		0
2.2	MR	3 core 6 sq.mm	50	RM		0
		TOTAL CARRIED TO SUMMARY				0

C.		GI RACEWAY & JUNCTION BOXES				
1	MR	Providing and laying 2 MM thick GI factory fabricated raceways in partition of the following sizes including providing removable 3 mm thick GI cover knock out holes and fixing accessories complete required including floor supports, bends, access boxes and tap off boxes as per specification and cross over as per site requirement.				
1.1	MR	300 mm wide X 40 mm deep raceway	50	RM		0
1.2	MR	200 mm wide x 40 mm deep raceway	80	RM		0
1.3	MR	150 mm wide x 40 mm deep raceway	45	RM		0
1.4	MR	100 mm wide x 40 mm deep raceway	55	RM		0
1.5	MR	65 mm wide x 40 mm deep raceway	250	RM		0
1.6	MR	Providing and fixing of 350 x 350 x 60 mm deep (Nominal size) junction box including providing 3 mm thick GI steel cover required as per specification.	5	Each		0
1.7	MR	Providing and fixing of 250 x 250 x 60 mm deep (Nominal size) junction box including providing 3 mm thick GI cover required as per specification.	8	Each		0
1.8	MR	Providing and fixing of 200 x 200 x 60 mm deep (Nominal size) junction box including providing 3 mm thick GI cover required as per specification.	5	Each		0
1.9	MR	Providing and fixing of 150 x 150 x 60 mm deep (Nominal size) junction box including providing 3 mm thick GI cover required as per specification.	25	Each		0
		TOTAL CARRIED TO SUMMARY				0

D		SUPPLY OF LIGHTING FIXTURES				
1	MR	The rates shall include all components that may be required to make the installation complete in all respects such as :				
*	MR	Suitable length connecting wires where called for.				
*	MR	Internal wiring between accessories.				
*	MR	Bonding with earth wires.				
2	MR	Drilling holes in supports wherever require.				
D		SUPPLY OF LIGHTING FIXTURES				
		Supply of the following lighting fixtures with all fixing accessories etc. as required.				
1	MR	Supply of CRCO10R038HP57GL1 LED 2X2(36W)	55	No.		0
2	MR	Supply of 12 WATT C.O.B LIGHT	47	No.		0
3	MR	Supply of 18 WATT C.O.B LIGHT	67	No.		0
4	MR	Supply of 36 W 1200MM SUSPENDED LINEAR LIGHT	6	No.		0
5	MR	Supply of 6+6 WATT DOUBLE FOCUS RECESSED LIGHT	7	No.		0
6	MR	Supply of PENDENT DECORATIVE LIGHT FIXTURE	3	No.		0
7	MR	Supply of 10 WATT, 150 MM CYLINDRICAL PENDENT LIGHT	1	No.		0
		TOTAL CARRIED TO SUMMARY				0
E		INSTALLATION OF LIGHTING FIXTURES				
1	MR	The rates shall include all components that may be required to make the installation complete in all respects such as :				
*	MR	Suitable length of GI down rod, hanger and connecting wires where called for.				
*	MR	Internal wiring between accessories.				
*	MR	Wires for connecting the fixtures to the point through connector block.				
*	MR	All metal blocks to serve as base of fixtures.				
*	MR	Bonding with earth wires.				
2	MR	Drilling holes in supports wherever required.				
3	MR	Fixing clamps, GI bolts and nuts, brass screws, saddles, rawl bolts and other fixing accessories as required.				
4	MR	Testing of all fixtures & fans before and after installation.				
E		SUPPLY OF LIGHTING FIXTURES				
		Supply of the following lighting fixtures with all fixing accessories etc. as required.				
1	MR	Supply of CRCO10R038HP57GL1 LED 2X2(36W)	55	No.		0
2	MR	Supply of 12 WATT C.O.B LIGHT	47	No.		0
3	MR	Supply of 18 WATT C.O.B LIGHT	67	No.		0
4	MR	Supply of 36 W 1200MM SUSPENDED LINEAR LIGHT	6	No.		0
5	MR	Supply of 6+6 WATT DOUBLE FOCUS RECESSED LIGHT	7	No.		0
6	MR	Supply of PENDENT DECORATIVE LIGHT FIXTURE	3	No.		0
7	MR	Supply of 10 WATT, 150 MM CYLINDRICAL PENDENT LIGHT	1	No.		0
		TOTAL CARRIED TO SUMMARY				0




F		CONDUITING WIRING AND CABLING FOR TELEPHONE/DATA SYSTEM				
		Supply, installation, testing and commissioning of all conduiting and cabling for telephone system including providing and fixing of the following:				
1	MR	All necessary specials and fittings, brass bushes etc.				
2	MR	Approved cover plates for inspection, junction and outlet boxes.				
3	MR	1.6 mm thick outlet boxes and junction boxes.				
4	MR	All fixing accessories such as clips, nails, screws etc.				
5	MR	Providing and fixing approved saddles, hooks and grouting the same as required, in the case of all exposed conduit work.				
6	MR	Embedding conduits and accessories in wall, floors etc. during construction and / or cutting chases and making good as necessary in the case of all				
7	MR	Providing 14 SWG GI pull wire in all conduit work.				
8	MR	Repainting of MS conduit, outlet boxes and junction boxes when ever damaged.				
F		CONDUITING WIRING AND CABLING FOR DATA SYSTEM				
1	MR	Supply, installation, testing and commissioning of following Category 6 IDC patch panel prepackaged with wiring block with legs insert labels, label holders, jumper troughs, metal back panel, duct assembly, screws, washers and an instruction sheet for termination of incoming pairs. Quoted price shall include suitable lockable enclosure etc. as required.				
1.1	MR	24 port jack panel	10	No.		0
2	MR	Supply, installation, testing and commissioning of flush mounted outlets wired to T 568 A or B with British style faceplate. The plastic shall be high impact, flame-retardant, UL rate thermoplastic. Dust cover/ blank shall be provided to protect unused faceplate openings. Termination caps and plastic over should be provided to protect jack wiring. Quoted price shall be inclusive of 1.6 mm thick GI Boxes.				
2.1	MR	Single outlet faceplate with RJ-45 jack	200	Nos		0
2.2	MR	Duplex outlet faceplate with RJ-45 jack	20	No.		0
		TOTAL CARRIED TO SUMMARY				0
G		UPS SYSTEM				
1	MR	Supply, Installation, testing and commissioning of following UPS system with all accessories complete as required.				
1.1	MR	40 KVA three input (415V \pm 15%), three phase output (415 V \pm 1%) on line UPS with 15 minutes battery backup each complete with battery rack.	1	Set		0
		TOTAL CARRIED TO SUMMARY				0

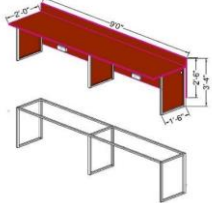




COMPUTER CENTRE (LIBRARY BUILDING)						
SUMMARY OF COST FOR HVAC WORKS						
S.No	MR BASIS	DESCRIPTION				AMOUNT
A		EQUIPMENTS				-
B		PIPING				-
		TOTAL OF HVAC WORKS				-
		TOTAL OF HVAC WORKS with GST				-


S.No	ITEM RATE BASIS	DESCRIPTION	Qty	UNIT	RATE (in Rs)	AMOUNT (in Rs)
A		EQUIPMENTS				
1		VARIABLE REFRIGERATNT FLOW (VRF) SYSTEM				
1.1		Outdoor Unit (Cooling Only)				
		Supply,installation, testing and commissioning of Modulating outdoor units, with multi scroll compressors (minimum two compressors) with one capacity controlling compressor and other constant speed type compressor, special pre-coated fins, panel, corrosion resistant coated condenser, inverter based condenser fan M.S. hot dip galvanised supports, electrical & microprocessor panel, isolating valves and all the necessary accessories for proper functioning of the units, having following approximate capacities.				
1.1.a		56 HP	1	No.		-
1.2		Indoor Units				
		Supply,installation, testing and commissioning of Indoor units equipped with pre-filter, fan section with low noise fan, multispeed motor, coil section with DX coil, outer cabinet, drain pan, insulation, pipe connections etc. of various capacities.				
		Suggestive Indoor Units are detailed as under:				
		Cassette Units				
1.2.a		2.6 TR	10	No.		-
1.2.b		2.0 TR	5	No.		-
		Wall Mounted Units				
1.2.c		2.0 TR	3	No.		-
1.2.d		1.3 TR	3	No.		-
1.2.e		1.0 TR	6	No.		-
1.2.f		0.8 TR	5	No.		-
1.3		Supply, installing, testing and commissioning of AIR COOLED SPLIT AIR CONDITIONING UNITS (refrigerant - R 407 C or R 410) as described in specifications. The unit shall be complete with cabinet type fan coil unit and external condensing unit, complete in all respects, GI condensate drain piping, valves and insulation . Quoted price shall include cost of thermostat, wiring, control cabling and earthing. All split units listed below shall be provided with approved cooling thermostat. Wiring, control wiring & conduiting between thermostat and unit shall be included in quoted price. The unit capacities shall be after taking deration into account due to copper piping lengths:The unit capacities shall be as follows :				
1.3.a		2.5 TR (Hi-wall Unit) air conditioning unit for Server Room(Stand-by)	2	No.		-
1.3.b		3 TR (Hi-wall Unit) air conditioning unit for UPS Room(Stand-by)	1	No.		-
1.4		Power cabling & earthing as per specifications between out door unit & indoor units. Power supply (3 phase 415 Volts will be made available near outdoor units Contractor to provide panel for onward power / control supply to outdoor units, single phase power / control supply to indoor units alongwith power / control cabling, supports trays etc.	1	Lot		-
1.5		Supply installation, testing and commissioning of Computer controlled network system for monitoring & controlling all indoor & outdoor units, central point including all software & cabling (I-manager) / I. Touch central controller.	1	Lot		-

2		Supply, installation, testing and commissioning of duct mounted IN-LINE FANS for exhaust/fresh air as shown in drawings. Each fan shall be complete with motor, mounting flanges, accessories like bird screen, fixed louvers and GI sheet canopy for weather protection as required. Fan shall be selected for maximum 1.2 inch (30 mm) static pressure. Quoted price shall be inclusive of electronic speed regulator and wiring between fan & speed regulator for single phase fans. Incase of 3 phase fans quoted price shall be inclusive of DOL starter panel with cabling between starter panel and fan. The incoming power supply to speed regulator / starter panel shall be provided by HVAC contractor along with the fans.				
		Quoted prices shall be inclusive of all necessary supports by MS structural steel if required, hangers, clamp supports from walls, floors and ceiling with painting with one coat of primer and two coats of paint to supports of MS work.				
		The fan shall have low sound level exceeding not more than 40 DBA at three metre distance.				
2.a		50-200 CFM		No.		R/O
2.b		250-500 CFM		No.		R/O
2.c		550-750 CFM		No.		R/O
2.d		800-1000 CFM		No.		R/O
3		Supplying, installing, testing and commissioning of direct driven PROPELLER FANS for exhaust air as shown in drawings. Each fan shall be complete with permanent split capacitor or shaded pole motor, mounting plate, accessories like wire guard, bird screen and fixed louvers for weather protection as required. Fan shall be suitable for 220±6% volts 50 cycles, 1 phase AC supply. Fan capacity shall be as follows :				
		Quoted prices shall be inclusive of all necessary supports by MS structural steel if required, hangers, clamp supports from walls, floors and ceiling with painting with one coat of primer and two coats of paint to supports of MS work.				
3.a		250-600 CFM		No.		R/O
3.b		101-250 CFM		No.		R/O
3.c		51-100 CFM	1	No.		-
3.d		0-50 CFM		No.		R/O
		TOTAL OF EQUIPMENTS				-
B		PIPING				
1		Supply, Installation, testing and commissioning of hard/soft copper refrigerant piping, between indoor & outdoor units, including bends, tee, clamps /supports (at every 3 mtrs. interval) duly insulated with 10 mm thick cross linked polyethylene foam in tubular section having K value 0.033 W/MK at 10 deg. C mean temp. and minimum density of 25 Kg/Cum. All running cables to be entangle with plastic tags/ cable tie, and complete as per specifications and as required.	260	Rmt		-
2		Providing and fixing in position the Heavy duty PVC drain pipe (for condensate drain, from indoor unit to nearest drain point, cut to required lengths) of 10 kG/Sq.cm pressure rating with elbows, bends, tees etc. duly insulated with 6 mm thick sleeve of nitrile rubber having K value 0.033 W/MK at 10 deg. C mean temp. and minimum density of 25 Kg/Cum. Insulation on drain pipe shall be carried out only where the pipe is running with in the wall. Exposed pipe shall be with out insulation.	120	Rmt		-
3		MS Stand for ODU's				
		Supply and Installation of pre- fabricated powder/duly painted MS stands (L- type and Chowki Type)				
3.1		L- Type (Bracket)	0	Each	R/O	-
3.2		Chowki Type	7	Each		-
		TOTAL OF PIPING				-

COMPUTER CENTRE (LIBRARY BUILDING)						
SUMMARY OF COST FOR HVAC WORKS						
S.No	DESCRIPTION	Qty	UNIT	RATE (in Rs)	AMOUNT (in Rs)	REFERENCE
	Computer Lecture Room Tables					
1	Providing and fabricating Student tables in curved profile as per design and detail. The table to be 500 mm deep, 750 mm height. The internal framework shall be made with MS 38mm square pipe 16 gauge for vertical supports, 25mm x 25mm square pipe 16g for horizontal members, bent to curved profile as per design and detail, including welding & buffing joints to smooth finish. The table top shall be of 19mm thk. waterproof plywood and finished with 1mm thk. laminate for top and 0.8mm thk. laminate for bottom, of approved make and shade. The tables shall have a modesty panel 16" high fixed in curved profile, of 12mm thickness, made with flexible plywood and finished on both side with 1mm thk laminate of approved make and shade, and exposed edges finished with 2mm PVC edge band of approved shade.					
	The Table shall also incorporate a 5" high x 5" deep raceway made with 19mm WP plywood for top and bottom and flexible plywood for front covering (as per drawing and detail) for electrical sockets and wiring, which shall be finished with 1mm laminate of approved make and shade. Edges of table top and all exposed ply edges shall be finished with 2mm thk PVC edge band (edges to be rounded) of approved make and shade. The vertical supports of the table to be provided with heavy duty height adjustable levellers.					
	Rate to be inclusive of providing end panels for the vertical supports (for end members only) with 19mm ply and 1mm laminate finish on both sides of approved make and shade, inclusive of 2mm PVC edge profile for exposed edges. Rate to be inclusive of finishing all steel members with metallic paint spray finished, to completely cover the base metallic surface and to obtain a smooth and uniform finish, to satisfaction of Architect/ Engineer, of approved make and shade, including cost of metal primer. Rate shall also be inclusive of fixing in position and grouting the table base to flooring with suitable clamps and anchor fasteners, or as directed by Architect/ Engineer. Waterproof Plywood: Greenply/Century/Archid, Laminate: Greenlam/ Century Laminate/ Equivalent, MS Sections: JSW/Tata/Apollo, Metallic Paints - Duco/ Asian Paints/ ICI Dulux/Equivalent					
1.1	Table Type 1 - Of outer radius 26680 mm and inner radius 26180 mm, with vertical supports at both the ends. Size - 3000 (L c/c) x 500 (D) x 750 (H) mm	10.00	No.		-	
1.2	Table Type 2 - Of outer radius 25380 mm and inner radius 24880 mm, with vertical supports at both the ends. Size - 2750 (L c/c) x 500 (D) x 750 (H) mm	10.00	No.		-	
1.3	Table Type 3 - Of outer radius 24080 mm and inner radius 23580 mm, with vertical supports at both the ends. Size - 2600 (L c/c) x 500 (D) x 750 (H) mm	10.00	No.		-	
1.4	Table Type 4 - Of outer radius 22780 mm and inner radius 22280 mm, with vertical supports at both the ends. Size - 2450 (L c/c) x 500 (D) x 750 (H) mm	10.00	No.		-	
1.5	Table Type 5 - Of outer radius 21480 mm and inner radius 20980 mm, with vertical supports at both the ends. Size - 2250 (L c/c) x 500 (D) x 750 (H) mm	10.00	No.		-	
1.6	Table Type 6 - Of outer radius 20180 mm and inner radius 19680 mm, with vertical supports at both the ends. Size - 2075 (L c/c) x 500 (D) x 750 (H) mm	7.00	No.		-	

Faculty Room Table						
2	Supplying desk with Main Table of size 1600mm x 750 x 750mm including drawer pedestal and Return unit (Side) size 850mm x 450 x 700mm (return unit with 18mm thick PreLaminated Particle board front sliding/shutter/drawers door lockable sides and closed back with 9mm thick PreLaminated Particle board). The Worktops shall be made of superior quality 25mm thick particle board of grade II, type II, confirming to IS : 12823 of approved shade. The top 25mm thick and side panels (18mm thick PreLaminated particle board) will be cladded with special post forming laminated of thickness 0.62X0.8mm. Wire managers and computer tray shall be provided on table top with 55-60mm dia to hold wires. All exposed edges of table shall have 2mm thick Hot melt PVC banding.	5.00	nos.		-	
HOD Room Table						
3	Supplying desk with Main Table of size 1950mm x 750 x 750mm including drawer pedestal and Return unit (Side) size 1000mm x 450 x 700mm (return unit with 18mm thick PreLaminated Particle board front sliding/shutter/drawers door lockable sides and closed back with 9mm thick PreLaminated Particle board). The Worktops shall be made of superior quality 25mm thick particle board of grade II, type II, confirming to IS : 12823 of approved shade. The top 25mm thick and side panels (18mm thick PreLaminated particle board) will be cladded with special post forming laminated of thickness 0.62X0.8mm. Wire managers and computer tray shall be provided on table top with 55-60mm dia to hold wires. All exposed edges of table shall have 2mm thick Hot melt PVC banding.	1.00	nos.		-	
Faculty Assistant Side storage						
4	Supplying and fixing of curved storage unit of having depth of 450mm. The top of side unit - made out of 18 mm thick prelaminated board, The main body structure made out of 18mm thick particle board the external side should be finished laminate finish of approved colour and shade and inside should be finished with balancing white shade. The Side unit should be provided with sliding or open able shutter made out of 18 mm thick particle board finished laminate finish and other side should be finished with laminated in white color . The openable shutter shall have auto closing hinges . Each side unit to be provided openable shutters with suitable hardware like Lock, S. S Brush finish Handle , tower bolt, bal catcher , etc all complete . The storage also to be provided with adjustable shelf. All the external side should be finished with laminate finish and internal surface should be finished with balancing white laminate.					
4.1	Storage Type 1 - Of outer radius 16120 mm and inner radius 15670 mm.	6.00	Sqm		-	
4.2	Storage Type 2 - Of outer radius 10950 mm and inner radius 10500 mm, Depth 450 mm, height 750 mm.	1.50	Sqm		-	
					-	
Faculty Assistant Room & Lecture Hall Table						
5	Supplying and fixing of Working Table of size 1200mm x 700 x 750mm. The Worktops shall be made of superior quality 25mm thick particle board of grade II, type II, confirming to IS : 12823 of approved shade. The top 25mm thick and side panels (18mm thick PreLaminated particle board) will be cladded with special post forming laminated of thickness 0.62X0.8mm. Wire managers and computer tray shall be provided on table top with 55-60mm dia to hold wires. All exposed edges of table shall have 2mm thick Hot melt PVC banding.	8.00	nos.		-	

LINEAR WORKSTATION - Computer Lab						
6	<p>Providing, joining, fixing and placing in series, desk made up of Wood based Partical board ISI mark.</p> <p>Structure made up of 30mmx30mm square CR pipe of 1.2mm thickness. Top and front panel made up of 25mm wood based prelaminated partical board ISI mark with edges covered with 2mm edge band. Legs made up of 18mm wood based prelaminated partical board ISI mark with edges covered with 0.8mm edge band.</p> <p>Wire management box of 18mm thick in C shape should be placed below the table top as per site condition . Good quality ISI marked switch plate with 1 switch and 2 shocklets should be mounted on the box. The complete board should be tightened on the steel frame for heavy duty and long lasting. Legs will be rested in high quality adjustable buffers. There should be a provision to insert a table name plate as per seating capacity.</p> <p>WIRE MANAGEMENT: - The vertical wire should be carried through or from the intermediate legs with cover on both side of legs . Provision for flip top box should be provided in Alumunium powder coated fininsh for accessing wires from the table top.</p>					
6.1	Table 1 - Size 9750mm (L) x 450mm (D) x 750mm (H).	2.00	Nos.		-	
6.2	Table 2 - Size 7800mm (L) x 850mm (D) x 750mm (H).	1.00	Nos.		-	
6.3	Table 3 (ADMIN) - L-Shape - Size 1500mm (L1), 1200mm (L2) x 600mm (D) x 750mm (H)	2.00	Nos.		-	
6.4	Table 4 (ADMIN) - Linear - Size 2400mm (L) x 600mm (D) x 750mm (H)	1.00	Nos.		-	
6.5	Table 3 - Size 7600mm (L) x 850mm (D) x 750mm (H).	2.00	Nos.		-	
Computer Lecture Room Chair, Visitor Chair						
7	<p>Supplying of Ergonomically designed low back visitor chair with moulded foam seat with specially developed low pilling permeable upholstery and PU arms rest. The chair has 25mm thick chromium plated / Powder coated cantilevered under structure.</p> <p>50% Chairs to be used existing ones.</p>	83.00	nos.		-	
Computer Lab Room Chair						
8	<p>Supplying of Ergonomically designed low back executive revolving chair with high density moulded foam seat, upholstered with specially developed low piling permeable upholstery, mesh back, user friendly push back mechanism, PP arms and hydro pneumatic system for easy height adjustment. The chair has five prongs nylon base with premium quality 60mm glass filled nylon castors.</p> <p>50% Chairs to be used existing ones.</p>	31.00	nos.		-	
Faculty Chair / Admin Area Chair / Assistant Teacher's Chair						
9	<p>Supplying of Ergonomically designed medium back executive revolving chair with high density moulded foam seat, upholstered with specially developed low piling permeable upholstery, mesh back, user friendly knee tilt bio syncro mechanism, one position locking system and hydro pneumatic system for easy height adjustment. The chair has five prongs aluminum alloy base with premium quality nylon castors.</p>	16	nos.		-	
HOD Room Chair						
10	<p>Supplying of Ergonomically designed high back executive revolving chair with high density moulded foam seat, upholstered with specially developed low piling permeable upholstery, mesh back with head rest, adjustable arms, user friendly bio syncro mechanism, one position locking system and hydro pneumatic system for easy height adjustment. The chair has five prongs nylon base with premium quality nylon castors.</p>	1	nos.		-	

	Sofa 2 seater- HOD Room					
11	Supplying and Placing in place of 2 seater sofa. The overall dimensions of the sofa shall be 1460W x 905D x 855H. The seat should be made of PU foam with Density 28 ± 2 kg/cu.mtr having an additional top layer of supersoft PU foam with Density 32 ± 2 kg/cu. Seat should be upholstered with fabric or leatherette. 2) BACK FOAM: The back should be made of PU foam with Density 28 ± 2 kg/cu. mtr with two additional top layer of supersoft foam of density 32 ± 2 kg/cu. mtr, upholstered with fabric or leatherette. Understructure should be made up of 1.2±0.1 cm. thick hot pressed plywood (which also shall be resistance and termite proof as per IS:303.) and pinewood of cross section devoid of major knots and surface defects 6 nos. per seat and 3.8mm dia. zigzag spring assembly is mounted over understructure for cushioning effect. It should be a welded assembly made in Stainless steel (grade SS 202) tube & plate with plastic endcap.	1.00	nos.	-		
	CPU TROLLEY					
12	Providing and fixing of CPU trolley which should be made from 1mm Thick CRCA steel sheet. The width of the trolley can be varied for accommodating various widths of CPUs; The trolley should be mounted on lockable castors.	200.00	nos.	-		
	WAITING LOUNGE FURNITURE					
13	CIRCULAR LOUNGE TABLE - 600mm dia. X 450mm (H) Table top: Table tops to be made of 25mm thk approved Prelaminated Partical Board. The table top to have a Post Formed Edge. Base: The base of the table shall consist of MS Powder Coated legs as per manufacturers spec and matching with the legs provided for the workstation with furniture complete as per detailed drawing.	3.00	nos.	-		
14	Providing, fixing at site of CHAIR Reading Area with following specification, etc complete including cost of labour, cost of materials, lead and lift charges and all other incidental charges etc., complete as per design drawing. The work shall be carried out as per directions of engineer in charge of works. Chair with frame in ash wood/Beach Wood in walnut finish. Moulded Foam Back with Seat and backrest in HIGH end fabric & PVC. SIZE: 52.5 X 57.5 X 83.5h Colour of Fabric to be approved by Architect	2.00	nos.	-		
15	Supplying and Placing of curved/. The overall dimensions of the sofa shall be 1460W x 905D x 855H. The seat should be made of PU foam with Density 28 ± 2 kg/cu.mtr having an additional top layer of supersoft PU foam with Density 32 ± 2 kg/cu. Seat should be upholstered with fabric or leatherette. 2) BACK FOAM: The back should be made of PU foam with Density 28 ± 2 kg/cu. mtr with two additional top layer of supersoft foam of density 32 ± 2 kg/cu. mtr, upholstered with fabric or leatherette. Understructure should be made up of 1.2±0.1 cm. thick hot pressed plywood (which also shall be resistance and termite proof as per IS:303.) and pinewood of cross section devoid of major knots and surface defects 6 nos. per seat and 3.8mm dia. zigzag spring assembly is mounted over understructure for cushioning effect. It should be a welded assembly made in Stainless steel (grade SS 202) tube & plate with plastic endcap.					
15.1	Sofa 01 - 2400 mm (L) x 905mm (D) x 855 mm (H)	3.00	nos.	-		
15.2	Sofa 02 - 2150 mm (L1), 1460 mm (L2) x 905mm (D) x 855 mm (H)	2.00	nos.	-		

	Overhead Storage					
16	Providing & fabricating storage 350mm deep formed out of 19mm thick commercial ply finished in 1mm thick approved laminate on both side. The shelves of the storage shall be formed out of 19mm thick commercial ply finished in 1mm thick approved laminate mounted over SS adjustable pins. Shutter of storage unit to be of Hettich Glass shutter approved colour Vinyl backed with frame Code no : 2-0033 mounted using approved clip-on hinges of approved make, complete as per detail dwg. Architect's instruction.	32.00	sqm		-	
	PANTRY COUNTER - GRANITE TOP					
17	<p>Providing and fixing of low height storage cabinet of height 850mm and depth 600mm formed of 19mm marine grade plywood formwork/carcass and 1 Nos. internal shelf of 19mm marine ply. Shutter of storage unit to be made of 19mm thk MDF finished with 1mm thk laminate The shutter shall be mounted on 3Nos. of approved spring loaded auto closing hinges of approved make. The rear backing of the storage shall be formed of 8mm thick marine plywood.</p> <p>Low height cabinet to be topped with 20mm thick approved Granite counter sandwiched at the edge to form a fascia of 40mm thick affixed to carcass with exposed edge profiled full round and polished to high gloss with 1.2mm thick. X 50mm height skirting formed out of 19mm thk marine ply & finished in 1.2mm thick SS brushed finish sheet as per detail dwg.</p> <p>Storage to be complete with hardware installed as directed to consist of the following. Shutter to have auto-closing spring loaded hinge of approved make installed strictly as per manufacturers guidelines. All necessary tools should be strictly used for correct installation of hinges. Each set of shutters to be provided with 1 Nos. chrome finished multi-purpose lock of approved make, 75mm medium sized stainless steel tower bolt, 1 Nos. heavy duty SS ball catch, 100mm C type brushed SS handle. Th shutter to be clad with 6mm thk Toughened Glass with approved colour vinyl Backing with necessary fixture</p>	7.00	sqm		-	
	CONFERENCE TABLE-Conference Room					
18	Providing and Placing in place of conference table of following specifications. The overall dimensions of the table shall be 3000 x 1200 x 750mm. These terminating leg structure shall be in M.S. CRCA sheet/ tubes/rods as per IS. 513/7138/432 finished with epoxy power coating of the approved colour as per the project designer. Worktop shall be made of 25MM thick Pre-Laminated Board conforming to IS: 12823. All the edges of work surface shall be provided with machine pressed 2 mm thick PVC lipping glued with hot melt EVA glue. Cross members in the Upbeat system are made from 50 mm x 25 mm x 1.2 mm thick. Cross members are assembled by friction fit PDC joinery and Grub screws. All cross members are mounted at a distance of 165 mm from worktop sides. Wire management: Wire tray with integrated power box made with a combination of 0.6 mm thick CRCA outer body and 0.8 mm thick CRCA switch plate (8+3 Anchor Roma) module cut out as standard. They are mounted on worktop.	1.00	nos.		-	
	TOTAL OF FURNITURE				-	
	TOTAL OF FURNITURE (Inc. of GST)				-	

BRAND APPROVED FOR THE PROJECT		
	PRODUCTS & MATERIALS	BRAND & MAKES
	CIVIL & INTERIORS	
1	CEMENT	ACC/AMBUJA/BIRLA
2	KERB STONE	ACC/AMBUJA/ULTRA
3	PAVER BLOCKS	ACC/AMBUJA/ULTRA
4	WATER PROOFING	CICO (Tapecrete)/ PIDILITE / SIKKA
5	GYPSUM BOARD	INDIA GYPSUM / BORAL USG
6	COMPOUND	INDIA GYPSUM / BORAL USG
7	CHANELS AND ACCESSORIES	INDIA GYPSUM / BORAL USG
8	P.O.P.	SAKARANI
9	GRID CEILING	ARMSTRONG
10	VITRIFIED TILES	KAJARIA/NITCO/RATNAGIRI
11	CERAMIC TILES	KAJARIA/NITCO/RATNAGIRI
12	GROUTING	LATICRETE / WEBER
13	CARPET TILES	INTERFACE/VITO/CCIL/WELSPUN
14	ALLUMINUM SKIRTING	BOTTOM LINE/BAUX
15	WOODEN FLOORING	GREEN PANEL/VISTA/PERGO/PAGEONE
16	PAINT & TEXTURE PAINT	ASIAN/BERGER/DULUX
17	POLISH	ASIAN/DULUX
18	BLINDS	VISTA / MAC / HUNTER DOUGHLAS
19	ROOFING - POLYCARBONATE	GALLINA/LEXAN/TUFLITE

PARTITIONS & WALL FINISHES		
1	GYPSUM BOARD	INDIA GYPSUM/USG BORAL
2	FIRE RATED GYPSUM BOARD	INDIA GYPSUM/USG BORAL
3	CHANNELS AND ACCESSORIES	IGL
4	COMPOUND	INDIA GYPSUM
5	GLASS WOOL	UP TWEGA (48KG. HIGH DENS)
6	ALLUMINIUM FRAME FOR GLASS DOORS & GLASS PARTITIONS	BOTTOM LINE/KUBIC/OTIC/BAUX 100X25MM
7	ALLUMINUM FRAMES (FLUSHED DOOR)	BOTTOM LINE/KUBIC/OTIC /BAUX
8	MS PIPE	TATA/JINDAL
9	WOODEN WALL CLADDING WITH V GROOV	GREENLAM/MERINO
10	DIGITAL GRAPHIC	3M
11	WALLPAPER FABRIC BASE	AS SELECTION
12	FROSTED FILM	3M
13	GLASS & LACQUERED GLASS	SAINT GOBAIN / MODI
14	PATCH FITTING	DORMA/OZONE
15	FLUSH DOOR	GREENLAM/MERINO
16	FLUSHED DOOR HARDWARES	DORSET/KABA
17	TOILET CUBICALS	MERINO/GREENLAM
18	HARDWARES (CHANNELS, HINGES, LOCKS)	DORSET/OZONE/ DORMA/ HETTICH

MODULAR FURNITURE & CARPENTRY		
1	MS RACKS	CUSTOM
2	COMM. PLY/BOARDS, MDF	GREEN/CENTURY/ARCHID
3	VDNEERS	GREEN/CENTURY
4	ADHESIVE	FEVICOL
5	PARTITION WOOD	MIRANDI
6	LAMINATES	GREENLAM / MERINO
7	SOLID ACRYLIC SHEET	DU PONT/ LG / SAMSUNG
I.T.		
1	DATA & VOICE CABLES	Legrand / AMP / Molex / D link
2	EPBAX	MATRIX / PANASONIC
3	SERVER RACK	Netrack / Welrack / Selrack
4	UPS	SIEMENS / SCHNEIDER/ TOSHIBA
5	FACE PLATES & IO's ETC.	D-LINK/LEGRAND
6	ACCESS CONTROL	ESSL / HONEYWELL / HID GLOBAL
7	CCTV	HIK VISION/ CP PLUS
8	AUTOMATION, AUDIO-VIDEO ETC.	LOGITECH / HONEYWELL / CISCO / JABRA