## **SUMMARY SHEET**

## TURNKEY DATA CENTRE INTERIOR & RELATED WORKS FOR INDIAN BANK- 2ND FLOOR , 66, RAJAJI SALAI, CHENNAI

S.NO	DESCRIPTION DESCRIPTION	AMOUNT
1	Interior work(A)	
2	Electrical work(B)	
3	Precision Airconditioning work(C)	
4	IBMS – (Sum of total of D1 to D8)( D)	
	GRAND TOTAL	

(in words	
( in words	••••••

	INTERIOR WORK FOR DATA CENTRE INDIAN BANK 2N	ND FLO	OR , CHE	NNAI		
				RATE	AMOUNT	
Sr.No	Description	Unit	Qty	Supply	Labour	
1	supplying & laying of of 19 mm thick self adhesive aluminum foil face nitril rubber insulation for server room floor & ceiling.	sqft	3100			
2	False Flooring only in Server room.	sqft	1200			
	Providing & Fixing of The server & other required area should be equipped with raised floor with 600 mm (24 inch) height. Cavity floor shall have false flooring panels of 18 gauge steel 600 x 600 coated with 50 micron epoxy conductive paint. Floor shall be finished with 2mm thick antistatic high pressure laminate with 2mm thick PVC trim edge all-round. The interior of the panels shall be filled with non-combustible cementious compound as per standard load confirming to BIS 875-1987.					
3	Metal False Ceiling only in Server Room: - Providing & Fixing of False ceiling shall be provided with Armstrong Lay in (Hot dipped galvanized steel) metal ceiling system 600 x 600 x 5mm with standard perforation of 2.5 mmdia (16% open space) and fleece with NRC of 70 & CAC 36 to be laid on Armstrong grid system. Armstrong Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 to be laid on Armstrong grid systems with 15mm wide T - section flanges Colour white having rotary stitching on the Main Runner, 1200 mm & 600 mm Cross Tees, fixed to the structural soffit by Butterfly clip hangers, suspension wires & anchor fasteners as per the manufacturer's specification. Suspension wires to be provided at every 600mm c/c with two nos of ties on each anchor fastener, Perimeter trim of Trulok wall angle in white colour secured to wall at 450mm maximum centers.	sqft	1200			
4	Supply and fixing Fire Rated Glass - 6mm thk with frost flim and 12mm thk fire retardant ply wood 3" wide paint finish etc complete.,	sqft	80			
5	Doors					
	Doors for Server room, Battery room, UPS room, FM room should be 2 hr fire rated metal door with size as per drawing and requirement.					
	Server Room Main Door - 1500mmx2400mm -Double Door	No.	1			
	UPS/Panel Room - 1800mmx2400mm - Double Door	No.	1			
	Door Between Phase1 & Phase2 Server Rooms -1500mmx2400mm -Double Door	No.	1			

	Emergency Server Rooms Exit-1200mmx2400mm - Double Door	No.	1		
6	Providing & Fixing of Plaster of Paris paste of thickness 5 - 8 mm punning over cement plaster shall be provided so as to ensure a level and smooth texture to the exposed walls and columns. The existing surfaces are to be cleaned and scratched and markers are kept before the application of punning material. After the material has dried upon application it is to be smoothened by means of rubbing it with sandpaper(only on Brick Wall)	sqft	4943		
7	Paintings				
	Providing & Applying plastic emulsion paint .This will be applicable for all vertical plane surface (Fire retardent)	sqft	5838		
8	SHOE RACK: -Shoe Rack with seating approved by end user as per catalogue of preferred makes.	No.	1		
9	GLOW SIGNAGE:- Providing & fixing glow signage on both sides of the door shutters marking PUSH / PULL along with other signage marking different work areas and emergency signs.	No.	10		
10	Trench work	Lot	1		
11	Ramp - 2000mmx1800mm	No.	1		
12	MS Step	No.	1		
13	Supply of Tile Puller	No.	2		
14	Supply and fixing MS Base Frame for UPS/PANELs	No.	7		
15	Supply and laying Antistatic mat / Rubber Mat in electrical room - 1000mm wide 20mm thick Rubber Matting suitable for 1100 Grade	Rmt	16		
	Sub total				
	Vat @% of supply				
	Service tax @% of Installation				
	Grand Total for (Supply + Installation) (A)				

	ELECTRICAL WORK FOR DATA				•	HENNAI	-			
SR. no.	DESCRIPTION OF MATERIAL	Qty.	Unit		Rate		nount			
				Supply	Installation	Supply	Installation			
	PART - I : PANELS AND DISTRIBUTION									
a	Supply, Installation, Testing and Comn		of Follo	owing Par	nels and DB's w	ith proper g	gauge MS			
	sheet and shall comply with IS standa									
b	Main Panels and Sub Panels will have	standar	d meter	s and pha	ise indicators.					
С	All BusBar will be of Copper .	•								
1	DC LT Panel									
	Incomer									
	400A 4P MCCB 2 Nos.									
	BUSCOUPLER									
	400A 4P MCCB 1 Nos.									
	Outgoings									
	250A 4P MCCB 2 Nos.									
	100A 4P MCCB 4 Nos.									
	63A 4P MCB2 Nos.									
	40A 4P MCB4 Nos.									
	10A DP MCB2 Nos.									
	Including, load manager with BMS	2	Set							
	compatibility, Phase indicators, ON,									
	OFF and Trip Indicators.									
2	W/S UPS O/P Panel									
	Incomer									
	100A 4P MCCB - 2 NO's									
	Outgoings									
	63A 4P MCB2 Nos.	1	6.1							
	10A DP MCB10 Nos.	1	Set							
3	UPS DB / PDU									
J	Incomer									
	250A 4P MCCB 1 Nos.									
	Outgoings									
	25A DP MCB - 30Nos.	2	Set							
	23A DE IVICB - 30NOS.		Set							
4	ELDB	1	Set							
5	Manual Change over over switch -	3	Set							
J	100A	3	301							
	Total Part - I									
	Total Fait - I									
	PART - II : CABLES AND TERMINATION	PART - II : CABLES AND TERMINATION. (ALL CABLES SHALL BE FRLS)								
Notes	The rates for all item of work shall incl				-					
a	Effecting proper and adequate connection		termina	ations.						
b	Ensuring that provision is left in buildi				ches as the wor	rk proceeds	s for			
~	incorporation of cable supports at a la	•				- p. 2000a.				
С	Providing all fixing accessories such as			es, Tie's	nuts and bolts.	screws wh	nere laid in			
-	trenches or trays.(Not to consider Tray						- ·=····			
d	Providing proper supports for cable te			, -	1	<i>J</i> ,				
e	Providing heavy duty copper lugs, insu			at joints	and termination	ns.				
	1 3 3 3 3 3 3 3 3 5 5 6 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	. ,		ianature of				

f	All fiving accessories such as Cl caddles sero	Mc ro	v plugg	cuitable	siza Anah	or Eactor	ars atc		
	All fixing accessories such as GI saddles, screws, raw plugs, suitable size Anchor Fasteners etc.  Wire/Cable Joint by crimping type lugs.								
g h	3 1 0 31 0								
	Cutting chases, holes and making good the same wherever required. (Not Valid for any Concrete Slab)								
i	Testing of the Cables in the Manufactures works and providing test certificates with the handover documents is the sole responsibility of the Contractor.								
1					1				
1	1C x 120 Sq.mm Cu flex	540	Mtr						
2	1C x 95 Sq.mm Cu flex	450	Mtr						
_									
3	4C x 25 Sq.mm Cu flex	129	Mtr						
4	4C x 10 sqmm Cu Arm	180	Mtr						
5	3C x 6 sqmm Cu flex FRLS	960	Mtr						
J	3C x 0 3qiriiri Cu Hex i KE3	700	IVILI						
	AIR INSULATED BUSBAR TRUNKING								
	(Only for Rack Power Distribution)								
6	200A, BBT RYB2N	50	Mtr						
7	200A, BBT RYB2N	70	Mtr						
	Terminations for Cable								
8	1C x 120 Sq.mm Cu flex	72	No.						
9	1C x 95 Sq.mm Cu flex	90	No.						
10	AC v DE Co mm Cu flov	36	No.						
10	4C x 25 Sq.mm Cu flex	30	INO.						
11	4C x 10 sqmm Cu Arm	18	No.						
	To X to Squiin Ga / um	10	140.						
12	3C x 6 sqmm Cu flex FRLS	192	No.						
	·								
	Total Part - II								
	PART - III :CABLE TRAYS	•			•	•			
Notes	The rates for all item of work shall include :-								
а	Supply and Installation with all nescessary su	upport	s and h	ardware.					
b	The work should be carreid out as specified								
С	Colour of the Trays has to be confirmed by the								
1	70mm x 200 mm wide perforated powder	200	Mtr						
	coated								
	black color								
2	100mm x 450 mm wide perforated powder	100	Mtr						
	coated								
	black color								
	Total Part - III								
	PART-IV: POINT WIRING AND CONDUITING	W∩DI	<u> </u> K	<u> </u>					
				I	ا - حالت - ا	C	lkama ali i		
Nat	These notes shall apply to all the relevant wiring items described in the schedule of items given								
Notes		vii ii ig i	torrio di	C3CI IDCG	111 1110 301	ioddio oi	J		
Notes :	I hese notes shall apply to all the relevant v below :- All points wiring, circuit wiring, sub mains wi								

b	All switch boards under the point wiring shall be the standard boxes available and the same shall be									
	suitable for concealed work. The boxes sho									
	practice and should be suitable to accomm	nodate	number	of contro	ol switches fa	ın regulato	ors, sockets.			
С	The entire wiring shall have continuous 2.5	sq.mn	n. appro	ved make	e FR Copper c	onductor	earth wire			
	for earth continuity having Green colour in	660/11	00 volt	s grade.						
d	The point wiring shall comply to IS 732.									
е	The entire work has to be carried out under the direct supervision of PMC/Prime Contractor.									
f	All materials under this schedule shall deemed to be included by the Contractor in his scope.									
g	The entire work to be carried out as per th									
	drawings, and as per final directions of PMC.									
h	The point wiring shall include wiring of light outlet of any length from distribution board via switch or									
	to the point and including providing circuit	wiring,	in mini	mum 25 r	nm dia PVC	Conduit of	of 1.8 mm			
	and using wires as specified below of appre	oved m	ake.							
1	LPDB/RDB for lighting									
	4 way TPN DB Double door 1no.									
	32A TPN ELMCB 1no.									
	20A SP MCB 6 nos.	2	Nos							
2	LIDC DD for lighting	+				1				
2	UPS DB for lighting									
	32A TPN 1no. MCB									
	16A DP MCB 6 nos.	1	Nos							
3	Primary point from MCB/ 5A Switch									
	with 3 x 2.5 sqmm wire	6	Nos							
4	Secondary Point Looped from item 4.3	14	Nos.							
5	Primary point for Raw power with 3 x	6	Nos							
3	4sqmm wire		1403							
	·									
6	Secondary point looped from item 4.5	12	Nos							
7	5A Switch with plate and back box	10	nos							
_	or control that plate and such son									
8	5/15A Socket + 15 A switch with all	8	nos							
· ·	accessories		1103							
9	3 nos.5 pin 5 A socket + 15 A switch with	4	nos							
7	all accessories	4	1103							
	an accessories									
	Total Part - IV									
	PART-V : LIGHTING FIXTURES & AND ACCE	SSORIE	S.			•	•			
Notes	The rates for lighting fixtures and fans shal	Linclud	le all acc	essories	and supply of	all mater	ials that may			
:	be required to make the fixture complete in				11 3					
а	All the fixtures shall be suitable for single				olts, AC supr	oly system				
b	All light fixtures shall be provided with Elec									
С	All fixtures shall be factory wired with copp									
d	All fixtures shall be supplied with fluoresco				bulbs or any	other sp	ecial type			
	bulbs						·			
е	All the fixtures shall be quoted of approved	l make	only.							

						1	
1	4 x 18 watts 2' x 2' Ceiling suspended light fixtures with						
	Tubes and all accessories (418 M5 HF)	24	nos.				
	4 0/ 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10					
2	1 x 36 watts industrial type tube fitting	10	nos.				
	with all accessories (136 HPF)						
3	PL Fittings 2 x18 watts with Tubes	4	nos.				
3	and all accessories (218)	4	1103.				
	and an accessories (210)						
	Total Part - V						
_	PART-VI : MOBILE SOCKETS AND STRAIGHT	PLUG	S.				
а	All the mobile sockets and straight plugs sho	ould be	of IP 4	4 type an	d of approved	make.	
	All the mobile sockets and straight plugs						
	should be of IP 44 type and of approved						
	make.						
1	32A DP+E Mobile Socket with plug	66	Nos				
	OR Fixed type socket Suitable for fixing on						
	BBT						
2	63A DP+E Mobile Socket with plug	4	Nos				
	OR Fixed type socket Suitable for fixing on						
	BBT						
3	63A DP+E Mobile Socket with plug	4	Nos				
	OR Fixed type socket Suitable for fixing on						
	BBT - 3Phase						
	Total Part - VI						
	Total Fart - VI						
	PART - VII : EARTHING AND EARTHING STRI	PS.	•	•	•	•	•
а	All earth pits shall be as per IS 3043 with late	est am	endmei	nts.			
b	Earthing stations should contain relevant gr				nd salt packe	d around	the earth
	plate/earth pipe as called for in the item.						
С	Earthing shall be done at indicted location be	•				tance betv	ween the
	two earth station shall be 3 meters and tha						
d	An earth ring with relevant earth test term						ervals.
е	Adequate number of earth strips with prop						. 41- 0
	earthing/looping earth connections at various	us fi00	rs snall	ne brovio	iea and execu	teu as per	ıne
f	requirement.  The Contractor has to provide heavy duty Co	over of	cizo 1E	0 v 150 v	0 mm thick to	tho Earth	ning
'	Chamber.	ovel OI	31ZE 43	U X 43U X	O ITHITI CHICK LO	uie Eai lí	iiig
g	The cover is to be sand blasted and then Pov	wder c	oatedu	ısina Matt	t let Black Cold	our The C	over is to be
9	fabricated using 8 mm thick Chequered Plat		outou u	isnig iviati	JOE DIGGROOM	Jai. IIIC C	OVOI IS TO DO
1	Earthing pits with 600 x 600 x 6mm	4	nos				
	Copper Plate earth upto 10 feet deep with						
	all accessories(Dedi. for UPS)						
	·						
L		1	1	1	1	1	1

2	6 sqmm braided copper tape for gride earthing	50	mtr		
3	8 swg bare cu wire	25	mtr		
4	25 x 3 copper Strip for Earthing of panel	50	mtr		
5	1c x 6 sqmm cu flexible (Green Colour)	70	mtr		
6	Dedicated Earthing Box with 50mm x 10mm x 200mmLenght	2	nos		
7	150x150x3mm Danger Notice Board & 415 Enameled Danger Board	1	nos		
8	Shock Treatment chart with Frame In Local & English Language	1	nos		
9	First Aid Medical Box	1	150		
10	1000mm wide 20mm thick Rubber Matting suitable for 1100 Grade	12	mtr		
	Total Part - VII				
	TOTAL Value				
	VAT @% of supply				
	Service tax @% of Installation				
	Grand Total(B)				

	PRECISION AIRCONDITION WORK FOR DATA CENTRE INDIAN BANK 2ND FLOOR - CHENNAI						
S.NO	DESCRIPTION	Qty	Unit	Rate	Amount		
	Price Schedule for design, manufacture, supply, installation,						
	testing & commissioning of Precision AC system along with						
	accessories as per the following Scope of Work:						
Α.	Main Equipment:						
	Floor Mounted, Bottom discharge Air Cooled DX type Precision						
	Air conditioners of 58.2 kW Actual total cooling capacity @						
	10840 CFM (Actual Capacity at return air temperature of 22 deg						
	C DB & 50% RH and Outdoor Ambient Condition @40 Deg C						
	with R-407C Refrigerant Gas) & should work at part load (From						
	20% to 100%) with Variable Capacity compressor.						
	The Indoor unit shall comprise of Variable capacity Digital						
	Scroll Compressor, Evaporator Fan complete with Backward						
	curved type with EC motor, Evaporator DX Cooling Coil ("A' /						
	"V" Shape), Microprocessor controllers, Expansion valves,						
	Driers, G4 Filter, Suction and Discharge piping, Internal power						
	and Control wiring, Crankcase heaters, Humidifiers, Heaters,						
	HP/LP Cutouts, Power and Control contactors and Other						
	Electrical accessories.						
	The Outdoor Condenser unit shall comprise of Condenser fans						
	& motor, Condenser cooling coil (Copper coil with aluminium						
	fins), Fan speed controller (Variex), Isolator switch.						
	The unit shall be suitable for operation on 415 Volts, 50 Hz, 3						
	Phase, 4 Wire AC supply. Each unit should be having individual						
	display panel, which shall display date, time, actual & set						
	values, operating conditions, signal faults, collective faults,						
	limiting values and PAC wellness alarm / service alarm to						
	reduce the down time and unit memory shall hold the 400 most						
	recent events with ID number, time and date stamp for each						
	event.						
	Supply of 58.2 kW Actual Sensible Cooling Capacity @10840Cfm	3	Nos.				
	/ Unit, as per above specification. Each unit footprint should		1403.				
	not exceed 1704 mm (W) x 850 mm (D) x 1950 mm (H).						
	Hot exceed 1704 Hilli (W) x 030 Hilli (b) x 1730 Hilli (H).						
	Model of Indoor Unit: : PeX270DS	2W+1					
	Woder of Indoor Offit Pex270D3	S					
	Model of Outdoor Unit: 2XLS70CC2	, <u>, , , , , , , , , , , , , , , , , , </u>					
	The Break-up of Pricing is as under:	-					
2	Basic Unit Price of Each Unit	-					
a.	Items included are:						
		Inglisal					
	Digital Scroll Compressor	Includ					
	Dealessand assessed Face with FORM-1	ed					
	Backward curved Fan with EC Motor	Includ					
		ed					
	Evaporator Cooling Coil	Includ					
		ed					
	Air cooled condenser	Includ					
		ed					
	Fan Speed Controller (Variex)	Includ					

		ed			
	Microprocessor (ICOM)	Includ			
	Wild opi occasor (100 W)	ed			
	Heater	Includ			
	lieatei	ed			
	Humidifier (Infra Red Type)	Includ			
	numidiler (iliira ked Type)				
	Davisa Davis I O stantantan fan all debisa	ed			
	Power Panel & starter for all drives	Includ			
	F!!	ed			
	Filter	Includ			
	0.16.0140	ed			
	Card for BMS	Includ			
		ed			
	Water leak detector sensor	Includ			
		ed			
	Team Mode feature for PAC units controller for synchronising	Includ			
	the Multiple No. of units to work as single system for all	ed			
	above units.				
	Load sharing mode feature	Includ			
		ed			
	Cascading Effect	Includ			
		ed			
	Sequencing of above Units	Includ			
	and the same of th	ed			
b.	Excise Duty	12%			
Ι.	Excise buty	1270			
C.	CESS on Excise duty	3%			
0.	sees on Endles and g	070			
d.	Sub Total (Basic + Excise duty + CESS on ED)				
	,				
е.	CST against 'C' form	2.00%			
C.	Cor against & form	2.0070			
f.	Each Precision AC Unit Supply Price				
	Octroi / Entry Tax shall be extra at actuals.				
A.	Total Basic Supply Price				
B.	Lowside accessories and Installation & Commissioning:				
1	Installation & commissioning of Precision AC units comprising	3	Lot		
	of:				
	Precision AC indoor unit stand	Lot			
	Lifting, shifting & positioning of units to site.	Lot	İ		
	Outdoor unit installation along with Base frame / foundation	Lot	1		
	Initial charge of R-407C refrigerant gas & oil.	Lot			1
	Commissioning of the system	Lot	<del> </del>		
2	Interconnecting Copper piping between indoor & outdoor unit.	LUI			
_	Copper piping will be duly insulated with in the AC space.				
		00	N /1+r-		
	a. Hot gas line	90	Mtr		
	b. Liquid line	90	Mtr		
	D. LIQUIU IIIIC	70	iviti		
	1	1	1	1	

3	Interconnecting copper cabling between indoor & outdoor unit (3 Core x 2.5 Sqmm)	90	Mtr	
4	Incoming Copper Cabling from Incoming Isolator to CRAC Unit	15	Mtr	
5	18G Supply air plenum (Powder coated)	3	Nos.	
6	Condensate drain piping with 40NB GI- B class pipes.	15	Mtr	
7	Humidifier water piping with 25NB GI-B class pipes.	15	Mtr	
8	Supply air floor grilles, 600mm x 600mm	56	Nos	
9	Return air continuous grilles	30	Sq.M tr.	
	Grand Total Price for Lowside accessories and Installation & Commissioning			
	VAT @% on 70%			
	ST @% on 30%			
	Grand Total(C)			

	IBMS WORK FOR DATA CENTRE INDIAN BANK 2ND FLOOR ,CHENNAI							
				Supply		Inst	allation	
S.No	DESCRIPTION	QTY	UNIT	Rate	Amount	Rate	Amount	
	Supply, Installation, Testing and Commissioning of the following:							
	Access control System							
1	Supply, Installation, Testing and Commissioning of 4 Door Controller	1	Nos					
1a	Door interface module	3	Nos					
2	Proximity Card Reader	5	Nos					
	Finger print reader cum card reader	1	nos					
3	Proximity Card	50	Nos					
4	Single Door Electro Magnetic Lock	1	Nos					
5	Double Door Electro Magnetic Lock	2	Nos					
6	Magnetic Contact	5	Nos					
7	Emergency release switch	2	Nos					
7a	Push to exit	0	Nos					
8	Access Management software with Time and Attendence application module license.	1	Сору					
8a	PC FOR INSTALLING ACS SOFTWARE	1	NO					
9	Supply and surface laying of 8 x 0.75 Sq mm ATC flexible cable in PVC conduit	200	Mtrs					
10	Supply and surface laying of 4 x 0.75 Sq mm ATC flexible cable in PVC conduit	250	Mtrs					
11	Supply and surface laying of CAT 6 cable in PVC conduit	200	Mtrs					
	Total (D1)							
	CCTV System							
1	1/3" Indoor Color Dome Camera, 580 TV Lines, 0.1 Lux	8	Nos					
2	Power Supply Unit for Camera	4	Nos					
3	16 Channel Digital Video Recorder with TCP/IP and 2.0TB HDD for 60 days backup	1	Nos					
4	30" LCD Color Monitor	2	Nos					
5	Supply and laying of RG 11 Co-axial Cable in PVC conduit	500	Nos					
6	Supply and laying of 4 Core X 0.75 Sq mm ATC Flexible Shld.in PVC conduit	500	Nos					

	Total(D2)				
1	Fire Alarm system Intelligent Addressable Two Loop fire alarm control	1	No		
	panel with battery backup of 24 hrs in normal condition and 30 min in alarm condition with necessary accessories. Each loop capable of handling 252 detectors / devices. the system should have talk back system at the fire entry and exit location with two way communication , auto dialer with Dial up connection, should be able to communicate to Building management system	1	NO		
2	Intelligent Analogue addressable photo Thermal type smoke detector.	22	Nos		
2.1	Response Indicator	14	Nos		
3	Intelligent Addressable Single action Manual pull station	3	Nos		
4	conventional Sounder with addressable control module.	3	Nos		
5	Short circuit Line Isolators	1	Nos		
7	Addressable control module for PAC Tripping	5	Nos		
8	Addressable Input module for monitoring the Vesda systems.	2	Nos		
9	2 core 1.5 sq.mm Cu.Arm.FRLS cables	300	Mtrs		
10	Exit signage	3	Nos		
11	Emergency glowing signage with battery	2	Nos		
12	Integration Gate way to connect to software	1	Nos		
13	CO2 Type 2KG Portable Fire Extinguisher Cylinder	3	Nos		
14	2 Kg ABC Type Fire Extinguisher Cylinder	3	Nos		
	Total(D3)				
	Water leak Detection system				
1	Water Leak detection panel with battery	1	No		
2	Water Leak detection module	2	No		
3	Water leak detection cable sensor (15 Mtrs)	2	No		
4	Electronic Hooter	2	No		
5	Supply and surface laying of 2C x 1.0 Sq.mm copper conductor PVC insulated cable in 20 mm dia PVC Conduit	100	Mtrs		
	Total(D4)			 	
	Vesda System				
1	Two Zone Vesda Laser Focus Detector (VLP-002)	1	Nos		
2	Power Supply Unit for above Detector	1	Nos		
3	Aspiration Tubes	75	Nos		

4	Capillary Tubes	15	Nos
5	Air Termination Nozzles	15	Nos
6	Electronic Hooter	1	Nos
7	2C x 1.5 Sq.mm Cu. Armored Cable for connecting hooters  Total (D5)	75	Mtrs
	Fire Suppression system(Novec)		
	For Server room Only		
1	100 trs Seamless Cylinder with valve	3	Nos
2	Pressure Gauge +Low pressure supervisory switch	3	Nos
3	NOVEC 1230	240	Kgs
4	Electromagnetic Actuator	1	No
5	Manual Actuator	1	No
6	Pneumatic actuator	3	No
7	Flexible Discharge Hose	3	Nos
8	Flexible Actuation Hose	3	Nos
8a	Discharge pressure switch	1	No
9	Discharge Nozzles	21	Nos
10	Rack-Wall mount kit	3	Nos
11	2 core 1.5 sqmm armoured cable	150	Mtrs
12	Check Valve	3	Nos
13	Manifold	1	No
14	M.S. Seamless pipes as per ASTM A 106 Gr. B, schedule 40 with necessary fittings.	1	Set
15	2 Zone Gas release panel with battery backup	1	No
16	Manual Release Switch	2	Nos
17	Abort Switch	2	Nos
	Total(D6)		
	Rodent Repellent system		
1	Master Console with 12 satellites for Rodent Repellent system with al accessories	2	Nos
2	transducers	20	Nos
3	stand	3	Nos
4	Supply and surface laying of 2 core x 1sqmm cable in 20 dia PVC conduit	250	Mtrs

5	Supply and surface laying of 20mm dia PVC conduit	250	Mtrs		
	Total(D7)				
	BMS System				
1	PC with Duo core Processor,1 GB RAM, 100 / 1000 Mbps NIC for network connection, 17" TFT-LCD Screen complete with OS, MS Office and anti virus software, A-4 Inkjet Printer complete as required.	1	Nos		
2	Integrated Building Management System Graphical Software.	1	Nos		
	Auto dialer Modem , to generate SMS alert/pager , remote web clients -2 nos	1	no		
3	Stand alone Intelligent DDC Controllers with Enclosure for Vesda, Waterleak & Fire Suppression System	1	Lot		
4	Protocol Convertor with Encloser to integrate upto 12 Nos PAC (15 Parameters per device)	1	Lot		
5	Protocol Convertor with Encloser to integrate upto 8 Nos PDU (15 Parameters per device)	1	Lot		
6	Protocol Convertor with Encloser to integrate upto 4 Nos UPS (15 Parameters per device)	1	Lot		
7	Protocol Convertor with Encloser to integrate upto 2 Nos DG Sets (15 Parameters per device)	1	Lot		
8	Protocol Convertor with Encloser to integrate 1 Nos Fire Alarm System (100 Parameters per device)	1	Lot		
9	Communication gateway	1	Nos		
10	Room Temperature & Humidity Sensor	2	Nos		
11	2 core x 1 sq.mm shielded armoured cable	600	Mtrs		
12	Cat 5 armoured communication cable	400	Mtrs		
	Total Value				
	Total				
	Vat% of supply				
	Service tax% OF INSTALLATION				
	Grand Total(D8)				