

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	SUB HEAD 9: LIGHT FIXTURE AND FANS					
9.00	LIGHT FIXTURES AND FANS					
9.01	Supply of following light fixture with high efficiency electronic ballast, starter, tubes/lamps, capacitor, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
i	1 x 20 W LED box type fluorescent light fixture (LED ASTRA, Philips BN 150 W LED 20S-6500 PSE OD GR with minimum system lumen 2000 or approved equivalent from list of Makes)(120bw)	Each	50	2241		112050
ii	1 x 20 W LED box type fluorescent light fixture (Philips BN108C LED 20S PSU CDL WH including Mounting Accessories, with minimum system lumen 2100 or approved equivalent from list of Makes)(136b/ 136bw)	Each	725	1380		1000500
iii	2 x 20 W LED box type fluorescent light fixture (Philips BN108C LED 40S PSU CDL WH, including Mounting Accessories, with minimum system lumen 4200 or approved equivalent from list of Makes)(236b, service block)	Each	110	2242		246620
iv	LED Recessed flush mounted light fixture (Full Glow (1200mm), Philips RC380B LED-32S-6500 L120W30 PSU OD or Crompton LCTLR-40-CDL as per requirement with minimum system lumen 3000 or approved equivalent from list of Makes)(RMSQ3, ICU)	Each	800	6800		5440000
iv	LED Recessed flush mounted light fixture with DALI type dimmable Electronic Ballast (Full Glow (1200mm), Philips RC380B LED-32S-6500 L120W30 PSU OD or Crompton LCTLR-40-CDL as per requirement with minimum system lumen 3000 or approved equivalent from list of Makes)(RMSQ3, ICU)	Each	300	9200		2760000
v	LED recessed flush mounted light fixture (Full Glow (600mm), Philips RC380B G2 LED35S-6500 PSU OD WH or Crompton LCTLRN-36-FO-CDL per requirement with minimum system lumen 3000 or approved equivalent from list of Makes)(RMSQ3, ICU)	Each	2200	6800		14960000
v	LED recessed flush mounted light fixture with DALI type dimmable Electronic Ballast (Full Glow (600mm), Philips RC380B G2 LED35S-6500 PSU OD WH or Crompton LCTLRN-36-FO-CDL per requirement with minimum system lumen 3000 or approved equivalent from list of Makes)(RMSQ3, ICU)	Each	500	9200		4600000
vi	LED recessed flush mounted light fixture (Serenio Philips RC869B LED-30S-6500 PSE W30L 120 D8 GR Size 600 x 600 mm/ 1200 mm as per requirement, with minimum system lumen 3000 or approved equivalent from list of Makes)(236RMSQ2)	Each	360	5600		2016000

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viii	LED Surface mounted light fixture (Philips SP824P LED 29S-5000 GR OD or Crompton LCTLS-40-CDL as per requirement with minimum system lumen 3000 or approved equivalent from list of Makes)(236SM01)	Each	140	7200		1008000
xii	Surface / Recess Mounted flourscent light fixture (Philips TCS 306 1XTL-36W EBE with LED Lamp with minimum system lumen 2000 or approved equivalent from the list of approved makes) (1X20 RMO1)	Each	100	2855		285500
xiii	LED recessed flush mounted light fixture (AURA I Crompton LCPL-36-CDL/TL Size 600 x 600 mm/1200 mm as per requirement, with minimum system lumen 3000 or approved equivalent from list of Makes)	Each	200	4643		928600
9.02	Supply of following compact fluorescent light fixture with electronic ballast, starter, capacitor, yellow light lamps, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
i	1 x 10 W Bulk Head light fixture (Philips WT202 W LED 6S CW PSU S1 PC or approved equivalent from list of Makes)(BH)	Each	130	1280		166400
ii	1 x 10 W Mirror top with diffuser in 2ft variant (Crompton Greaves LINNET # LCL-10-CDL or approved equivalent from list of Makes)(wtoilet)	Each	270	1425		384750
iii	Surface mounted Batten holder (Plastic) with 9 watt LED	Each	50	550		27500
iv	1 x 15 W LED Surface mounted down light fixture (Philips DN170C LED 105-6500 PSU WH or approved equivalent from list of Makes)	Each	100	2050		205000
iv	1 x 15 W LED Surface mounted down light fixture with DALI type dimmable Electronic Ballast (Philips DN170C LED 105-6500 PSU WH or approved equivalent from list of Makes)	Each	20	4451		89020
v	LED Recessed flush mounted down light fixture (Philips DN194B LED 15S -6500 PSU WH or Crompton LCDD-18-CDL/TL/WW or approved equivalent from list of Makes)(DL1)	Each	530	2200		1166000
v	LED Recessed flush mounted down light fixture with DALI type dimmable Electronic Ballast (Philips DN194B LED 15S -6500 PSU WH or Crompton LCDD-18-CDL/TL/WW or approved equivalent from list of Makes)(DL1)	Each	50	4603		230150
vi	1 x 18 W LED Surface mounted down light fixture (Crompton Greaves Pearl Round LCD SPL-R-18-CDL or approved equivalent from list of Makes)	Each	220	2100		462000
vii	1X3 / 5 W LED Surface /Recessed flush mounted light fixture to be used as night lamp Ceiling mounted (NLCM)	Each	100	600		60000

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
viii	1X3 / 5 W LED Recessed flush mounted light fixture to be used as night lamp wall mounted (NLWM)	Each	25	800		20000
x	1X36 LED Surface mounted down light fixture (Crompton Greaves Pensile LCSA1-36-CDL/S or approved equivalent)	Each	40	6334		253360
xi	1X50 LED Recess mounted down light fixture (Crompton Greaves Prakhar LCDNR-50-CDL/WW or approved equivalent)	Each	30	4750		142500
9.03	Supply of following ceiling fans (BEE -5 Star Rated) complete with double ball bearing, motor, blades, downrod, canopies, capacitor, modular type electronic fan regulator, suitable for operation on 230 volts, 50 Hz., 1 phase, AC supply complete as required.					
i	1400 mm Sweep	Each	100	2330		233000
ii	1200 mm Sweep	Each	1350	2210		2983500
iii	900mm Sweep	Each	50	2140		107000
9.04	Supply of 1380 RPM, 300 mm (Crompton Greaves Trans Air or approved equivalent) exhaust fan suitable for single phase 230 volts, 50 Hz., AC supply complete with motor, louvers/shutters etc. complete as required.	Each	50	1868		93400
9.05	Supply of 1250 RPM, 250 mm (Crompton Greaves Brisk Air or approved equivalent) exhaust fan suitable for single phase 230 volts, 50 Hz., AC supply complete with motor, louvers/shutters etc. complete as required.	Each	30	1356		40680
9.06	Supply of 400 mm sweep, Crompton greaves model high flow 16" wall mounted fan complete with double ball bearing, motor, blades, capacitor etc suitable for single phase 230 volts, 50 Hz., AC supply, complete as required.	Each	10	2102		21020
9.07	Installation, testing and commissioning of prewired, fluorescent fittings of all types, complete with all accessories and tube etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.	Each	5485	100		548500

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
9.08	Installation, testing and commissioning of prewired, compact fluorescent lamp fixture (CFL fixtures) of all types, complete with all accessories and lamp etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.	Each	1565	100		156500
9.09	Installation, testing and commissioning of ceiling fan and modular type electronic fan regulator (Electronic regulator to be fixed in switch board) including wiring the down rod and connection with 1.5 sqmm FR PVC insulated, copper conductor single core/multi strand cable including providing & fixing phenolic laminated sheet cover on the fan box, etc. as required.	Each	1500	272		408000
9.10	Installation, testing and commissioning of exhaust fan up to 400 mm sweep in the opening, including making the hole to suit the size of the above fan including , fixing of louvers/ shutters with frame making good the damages etc. as required.	Each	80	294		23520
9.11	Installation, testing and commissioning of wall mounted fan up to 400 mm sweep including supply and fixing wall bracket arrangement complete as required.	Each	10	150		1500
9.12	Supply, installation, testing and Commissioning of LED Type Aviation light Philips XGP400 1xLED-K2/RD240V or approved equivalent including its wiring.	Each	2	3173		6346
	TOTAL SUBHEAD 9 : LIGHT FIXTURE & FANS AS MENTIONED ABOVE					41186916
	SUB HEAD 10: TELEPHONE SYSTEM					
10.00	TELEPHONE SYSTEM					
10.01	Supplying drawing, connecting and testing of 0.5mm dia annealed copper conductor PVC insulated PVC sheathed telephone Wire/cables in Existing M.S/ PVC conduit or a racks as required.					
	i 2 pair Telephone cable. (0.5 mm)	Meter	11250	24		270000
10.02	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					

S.No.		Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	i	20 mm	Metre	6750	157		1059750
	ii	25 mm	Metre	2250	182		409500
10.03		Supply, fixing, connecting and testing of telephone modular sockets modular plate anodised MS box and blanking plate in surface / recessed including connectionetc as required.					
	i	Telephone socket outlet (RJ-11 telephone Jack Single with Shutter)	Each	400	200		80000
	ii	Telephone socket outlet (RJ- 11 telephone Jack double with Shutter)	Each	50	237		11850
10.04		Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block etc. including terminations of cable as required.					
	i	200 Pair	Each	3	15000		45000
	ii	100 Pair	Each	4	8000		32000
	iv	20 Pair	Each	14	1000		14000
	v	10 Pair	Each	30	500		15000
10.05		Supplying and drawing of following pairs 0.5mm dia annealed bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels including termination of cables at both sides in Krone Tag Block etc. complete as required.					
	ii	20 Pair	Metre	825	217		179025
	iii	10 Pair	Metre	1380	113		155940
10.06		Supplying and drawing of following pairs 0.5 mm dia annealed bare copper conductor Polythene insulated, core twisted into pairs armoured jelly filled telephone cable in the existing trench/ hume pipe/ GI pipe etc with saddels etc. including terniation of cables in both sides at krone tag block complete as required.					
	i	200 pair	Metre	300	1900		570000
	ii	100 Pair	Metre	100	1000		100000
10.07		DIGITAL EPABX SYSTEM (COMMUNICATION SERVER)					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	Supply, installation, testing & commissioning of 32 bit microprocessor based, fully digital, 100% non blocking, PCM-TDM, true ISDN & PRI Line and IP ready digital EPABX with distributed architecture for power supply cards, as per specifications with following configuration:					
A	IP PBX 560 Extensions Expandable type					
	IP User -16 users					
	Configured For-					
	Analog P&T Lines- 16 (Expandable upto 12 Lines)					
	ISDN PRI Line (30 Channels)- 2 nos with CLIP Facility					
	24 Extension Digital Card : 1no					
	SUBSCRIBER INTERFACE:					
	Voice Mail system Consisting of Voice mail Boxes for all Users , Auto attended system with greeting messages PC for Attending voice mail system					
	Redundant Lan Port and Wan Port-2					
	Redundant Call Processor					
	Redundant Power Supply					
	Full Software Licences & Support					
	In-built Music on Hold					
	Remote maintenance.					
	Ethernet port for LAN connectivity and System Management					
	Support for Voice over IP (VoIP)					
	Day/Night service					
	8 party conference Facility					
	Speed Dial					
	Support for OFC Connectivity					
	Support for Wi-Fi based wireless extensions.					
	System Documentation on CD-ROM					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	Hot Standby Duplication of all common control card without call disconnection.					
	IP Based operator Console with PC - 1 Nos.					
	should support IP Telephony and should be able to intergrate other EPBAX System on IP					
	DIGITAL EPABX SYSTEM AS MENTIONED ABOVE	Set	1	3885000		3885000
B	Flaot Cum Boost Charger (FCBC)for Above EPBAX System 48 V/125 Amp Inculding SMS Batteries with 2 hr Battery Back Up)	Set	1	249480		249480
C	Supply ,Installation ,Testing and commissiiong of IP Digital Phone having following features					
	IP Hard Console Phone					
	Full Colour VGA Display with 4096 different colours!					
	Full alphabetic keyboard					
	Key-based navigation					
	Hands free operation					
	Best in Class loudspeaker for speakerphone operation; also includes microphones					
	Jack for headset expansion					
	Compatible with PC applications					
	Bluetooth connectivity for the ultimate in integration					
	2 Ethernet ports					
	Downloadable admin softwar					
	Eight Personalized Ring Patterns.					
	Either desk or wall mountable.					
	DIGITAL IP PHONES AS MENTIONED ABOVE	Set	16	23400		374400
D.	24 port Layer 2 Switch 10/100/1000 GBPS for IP phone	Set	3	120000		360000
E	Supply ,Installation ,Testing and commissiiong of Digital Phone having following features (Before procurement of this item, the contractor shall have necessary approval approval of quantity from HSCC/Client.					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	Adjustable graphical display					
	Resolution 64X128 pixels.					
	Size 70X38 mm					
	Socket for headset					
	40 Programmable keys					
	2X3 contextual keys, 2 personal keys/LED					
	Navigator keys 4 directions					
	Alphabetic keyboard (Dial by name)					
	Feature keys Like: Message + LED, Redial, End Key, Volume +/-, Mute with LED, Help, Handsfree with LED					
	Digital Phone AS MENTIONED ABOVE	Set	10	15000		150000
F	Supply of Analog phones having following features(Before procurement of this item, the contractor shall have necessary approval approval of quantity from HSCC/Client.					
	FSK/DTMF Compatible Caller-Id					
	16 Digit LCD single Display					
	30 Incoming Memory					
	5 Outgoing Memory					
	Real Time Clock with Year, Date and Month display					
	Conversation Time Display (Approx.)					
	6 Step LCD Contrast Adjustable					
	36 Digits Redial Memory					
	Auto Filter Local Area Code up to 5-digit					
	Real time & Date in Idle Mode					
	Analog phones as mentoned above	Set	50	3030		151500

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	Supply of Analog phones Without display having following features ; Pulse or tone Dailing 3 repertory Keys, 10 Speed Dailing Number, Last Number redial , Manual Pause, Adjustable volume etc (Before procurement of this item, the contractor shall have necessary approval approval of quantity from HSCC/Client.	Set	450	1440		648000
G						
10.08	Supply, installation, testing and commissioning of Main Distribution frame Exchanger side - Krone type 560 pair with IPM (protection Magzine) including mounting frame, etc/ Complete as required as per specifications.	Set	1	138000		138000
10.09	Supply, installation, testing and commissioning of Field Side Distribution frame Exchanger side - Krone type 560 pair with IPM (protection Magzine) including mounting frame, etc/ Complete as required as per specifications.	Set	1	76080		76080
	TOTAL SUBHEAD 10: TELEPHONE SYSTEM AS MENTIONED ABOVE					8974525
	SUBHEAD 11: CONDUITING FOR COMPUTER SYSTEM .					
11.00	CONDUITING FOR COMPUTER SYSTEM .					
11.01	Supply and fixing of following sizes of MS conduit along with the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required					
	i 20 mm dia	Metre	7200	157		1130400
	ii 25 mm dia	Metre	3000	182		546000
11.02	Supplying and fixing two module modular plate in recess flush mounted with clear acrylic cover (suitable for RJ-45 computer socket) with GI box complete as required.	Each	600	409		245400
	TOTAL SUBHEAD: 11 CONDUITING FOR COMPUTER SYSTEM AS MENTIONED ABOVE					1921800
	SUB HEAD 12: CONDUITING FOR TV OUTLETS					
12.00	CONDUITING FOR TV OUTLETS					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
12.01	Supply and fixing of following sizes of MS conduit along with the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required					
	i 20 mm dia	Metre	3400	157		533800
	ii 25 mm dia	Metre	1000	182		182000
12.02	Supplying and fixing 2 module modular metal box in recess flush mounted with clear acrylic cover with modular cover plate including fixing 1 no. coaxial TV outlet connection and all accessories complete as required	Each	100	233		23300
12.03	Supply and drawing Coaxial TV Cable RG - 6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Metre	3000	52		156000
	TOTAL SUB HEAD 12: CONDUITING FOR TV OUTLETS AS MENTIONED ABOVE					895100
	SUBHEAD 13: ADDRESSABLE FIRE SYSTEM					
13.01	Supply, installation, testing and commissioning of Networkable Microprocessor based 18 -loop capacity, Networkable analogue addressable type fire alarm control panel with minimum 640 character LCD display / Touch Screen Display. The panel should be equipped with sufficient numbers of loop with 20% Spare capacity in each loop. The pane should be with flash EPROM sufficient numbers of programmable relay controls for controlling AHUs, pressurization fans, ventilation fans at fire pump room, monitoring of fire sprinkler and fire hydrant pump, 240 volts AC power supply, automatic battery charger, 24 volts sealed lead acid batteries sufficient for 24 hours normal working and then be capable of operating the system for 2 hours during an emergency conditions as required. The Panel shall be with backnet card for BMS interfacing. (UL Approved)	Nos.	1	2246500		2246500

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
13.02	Supply, installation, testing and commissioning of Networkable & Microprocessor based 640 - characters LCD / Touch Screen LCD Display Network Repeater panel. The LCD shall Display all events / detectors, devices status of complete systems in the networked, The repeater shall be equipped with Mounting options etc.	Nos.	1	74940		74940
13.03	Supply, installation, testing and commissioning of Automatic Analog addressable Photo - Thermal multicriteria detector with mounting Base, alarm LED . The Detector shall have automatic Electronic / dip switch addressing feature & each of these shall be equipped with fault Isolator/ External Fault Isolator complete with the GI Mounting Box and the hardware etc. as required.	Nos.	800	3780		3024000
13.04	Supply, installation, testing and commissioning of Automatic Analog addressable Photoelectric smoke detector with mounting Base,alarm LED . The Detector shall have automatic Electronic /dip switch addressing feature & each of these shall be equipped with fault Isolator/ External Fault Isolator complete with the GI Mounting Box and the hardware etc. as required.	Nos.	875	3551		3107125
13.05	Supply, installation, testing and commissioning of Automatic Analog addressable Fixed Temperature cum rate of Rise type Heat detector with mounting Base, alarm LED . The Detector shall have automatic Electronic / dip switch addressing feature & each of these shall be equipped with fault Isolator/ External Fault Isolator complete with the GI Mounting Box and the hardware etc. as required.	Nos.	120	3405		408600
13.06	Supply, installation, testing and commissioning of Automatic Analog addressable Duct Detector with Duct Housing and Duct probe tubes complete with Photoelectric Smoke Detector with mounting Base, alarm LED .The Detector shall have automatic Electronic/ dip switch addressing feature & each of these shall be equipped with fault Isolator/ External Fault Isolator complete with the GI Mounting Box and the hardware etc. as required.	Nos.	70	14496		1014720
13.07	Supply, installation, testing and commissioning of Automatic Addressable control module for Hooters and Strobes . The Module shall have automatic Electronic /dip switch addressing feature & each of these shall be equipped with fault Isolator/ external fault Isolator complete with the GI Mounting Box and the hardware etc. as required.	Nos.	2	3690		7380

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
13.08	Supply, installation, testing and commissioning of Automatic Addressable control module for AHU & Stair Pressurization fan. The Module shall have automatic Electronic addressing feature & each of these shall be equipped with fault Isolator complete with the GI Mounting Box and the hardware etc. as required. .	Nos.	70	3608		252560
13.09	Supply, installation, testing and commissioning of Automatic Addressable Monitor module for Flow Switch Monitoring etc. The Module shall have automatic Electronic/ dip switch addressing feature & each of these shall be equipped with fault Isolator/ external fault complete with the GI Mounting Box and the hardware etc. as required.	Nos.	55	3608		198440
13.10	Supply, installation, testing and commissioning of Dual LED Response indicator for indicating the activation of the Remotely located Detector.	Nos.	600	291		174600
13.11	Supply, installation, testing and commissioning of Addressable Manual call Station. The Call Point shall have automatic Electronic / dip Swich addressing feature & each of these shall be equipped with fault Isolator / external fault isolator complete with the Mounting Box and the hardware etc. as required.	Nos.	45	3784		170280
13.12	Supply, installation, testing and commissioning of Addressable electronic Sounder. The Sounder shall have automatic Electronic / dip switch addressing feature & each of these shall be equipped with fault Isolator / external fault isolator complete with the Mounting Box and the hardware etc. as required. The Sounders shall be Loop powered i.e. should not require additional cable to feed the Power & shall be programmable from the Fire Panel for Multiple type of tones selection.	Nos.	45	4483		201735
13.13	Supply, installation, testing and commissioning of Addressable electronic Sounder with Optical Beacon. The unit shall have automatic Electronic addressing /dip switch feature & each of these shall be equipped with fault Isolator / external fault isolator complete with the Mounting Box and the hardware etc. as required. The unit shall be Loop powered i.e. should not require additional cable to feed the Power & shall be programmable from the Fire Panel for Multiple type of tones selection.	Nos.	10	5181		51810

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
13.14	Supply, installation, testing and commissioning of full duplex Fire Fighter's talk Back system with operator command centre and sufficient no. of point . The full duplex emergency communication system shall be able to display customized address of the location from which the Call is being made to the Fire Fighter's command Centre.	Nos.	1	225000		225000
13.15	Addressable Fire Fighter's Telephone Jack for full duplex emergency communication with the Fire Fighter's command Centre.	Nos.	50	5590		279500
13.16	Supply, installation, testing and commissioning of 2way communication Fire Fighter's Handset Nos complete with suitable leads for insersion.	Nos.	50	2795		139750
13.17	Supply, installation, testing and commissioning of Liscenced GRAPHICAL alarm monitoring and management Software to pin point the location of the Fire. The software shall identify the alarm events in the System and shall graphically indicate the pin point area in the Floor Plans. (At Control Room).	Nos.	1	494860		494860
13.18	Supply, installation, testing and commissioning of Networked PC BASED GRAPHICAL FACILITIES MONITORING SYSTEM with Dual Core 2.0 GHz Pentium® IV processor with 512 MBytes of RAM with 22" flat-screen LCD monitor, sound card. It shall and speakers, and 500 Giga Byte hard disk. It shall operate under Microsoft® Windows® XP Professional / Windows Software, complete with ethernet port, DVD Drive, 4 GB RAM, multimedia Speakers, Multimedia Keyboard, Optical wireless Mouse, 650 VA UPS etc. complete as required. (At Control Room)	Nos.	1	75685		75685
13.19	Supply and laying of following size of M.S, Conduit pipe in recess including all accessories MS pull/junction boxes, GI fish wire of 6 SWG, fixing hardware etc., including cutting, chasing the walls/floor and plastering the chased portion and making good the damages etc., complete as required.					
	i 25 mm dia	Meter	10000	182		1820000
	ii 32 mm dia	Meter	500	246		123000

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
13.20	Supply and drawing of 2 C x 1.5 Sq.mm. Sheathed anneled flexible copper Conductor FRLS cable in existing M. S. Conduit, Complete with termination and testing as per requirement.	Meter	11000	96		1056000
13.21	Supply and drawing of 4 C x 1.5 Sq.mm. anneled flexible copper Conductor, Copper braided shielding and overall Sheathed FRLS cable in existing M. S. Conduit, Complete with termination and testing as per requirement.	Meter	1000	126		126000
13.22	Supply and drawing of two pair, 0.71 sq. mm ATC Copper conductor cable in existing M. S. Conduit, Complete with termination and testing as per requirement.	Meter	2000	68		136000
	TOTAL SUB HEAD 13 :ADDRESSABLE FIRE SYSTEM					15408485
	SUB HEAD 14 : CCTV SURVEILLANCE SYSTEM					
14.01	Supply, Installation, Testing and Commissioning of Day/night fixed dome with a discreet, dust and IK rated vandal-resistant indoor casing. Varifocal 2.8-10 mm P-Iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams; max HDTV 720p or 1MP resolution at 30 fps. WDR more than 70dB.Video motion detection and active tampering alarm. Memory card slot for optional local video storage. Power over Ethernet. Includes mounting bracket for wall/ceiling or junction boxes.	Nos.	90	41364		3722760
14.02	Supply, Installation, Testing and Commissioning of Compact and outdoor-ready HDTV camera for day and night surveillance, IP66-rated, varifocal 2.8-10 mm P-iris lens . Remote 3.5 x optical zoom and focus. Automatic IR cut filter. Multiple, individually configurable H.264 and Motion JPEG streams; max HDTV 1080p /2MP resolution at 30 fps.Video motion detection, active tampering alarm, corridor format and WDR – more than 70dB. microSD/SDHC memory card slot for edge storage. Integrated bracket for easy mounting on wall and ceiling. Power over Ethernet.	Nos	10	62047		620470
14.03	Supply, Installation, Testing and Commissioning of PTZ camera with continues 360° pan for both indoor and outdoor with 18x optical zoom. HDTV 720p @ 25fps (1280x720) in H.264 and Motion JPEG, Day & Night, IP66 and NEMA 4X classification. Autotracking , full-size SD-card slot, smoked and clear dome. Mounting brackets are included.	Nos.	4	244810		979240

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
14.04	Supply and installation of 6 mtr high MS Pole for installation of PTZ Cameras	Nos	4	27860		111440
14.05	Supply, Installation, Testing & Commissioning of Power Supply for PTZ cameras.	No	4	5910		23640
	IP Based Digital Video Management System					
14.06	Supply, Installation, Testing and Commissioning Control Network (IP) Based Digital Video Management System comprising of following:					
	i Control Network (IP) Based Digital Video Management System consisting of monitoring and recording system for Enterprise level installation optimized to take full advantage of IP network cameras and video encoders. It combines easy setup with an intuitive user interface for efficient operation, quick investigation and high definition identification. Includes a 5 year free software maintainence and upgrade pack.	No.	1	80051		80051
	ii License for 1 additional network video channel to base Camera Station with the base pack pre-installed. eLicense. For 125 Nos. Camera	lot	1	1285600		1285600
	iii Client Licensces for 5 clients	lot	1	56996		56996
	iv NVMS Management and Recording server. Server - 19" rack mount or Tower Mount. RAID 5 capability with capability of recording min 70 cameras on each server. Dual Intel QUAD Core 2 GHZ Xeon Processors , 16 GB RAM , 2 X 300 10 K RPM SAS Harddisk , Dual Giga NIC, Redundant Power Supply & MS Windows 10 64 bit OS with Microsoft .Net runtime environment with software to support native command queuing (NSQ) with 19" monitor complete as required.	Nos.	3	401710		1205130
	v Enterprise storage Box with no single point of failure (dual controller and dual power supply) with bandwidth support of 200 Mbps with usable capacity of 60 TB of storage specs after RAID 5 protection	Nos.	1	875000		875000
14.07	The workstion shall have the the following Client Workstation - With a minimum of Intel Xeon E5-1607 3.00Ghz 10MB 1066 4C CPU 8GB DDR3-1600 ECC (2x 4GB) RAM 500GB 7200 RPM SATA 1st Hard Drive 16X Super Multi DVDRW 1GB Graphics Card with full DirectX 9.0 hardware acceleration on-board or more. Client software shall support Dual monitors each displaying 16 cameras simultaneously. A maximum of 32 cameras viewing per workstion at a time programmable to sequence.	Nos.	4	196197		784788

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
14.08	Supply, installation, testing & commissioning of 32" Flat LED Color Monitors.	Nos.	5	48500		242500
14.09	Supply, installation, testing & commissioning of joystick & keyboard for controlling PTZ cameras.	Nos.	1	84417		84417
14.10	ETHERNET SWITCHES					
i	Supply, installation, testing & commissioning of PoE Layer II Managed Ethernet switch: 16 port RJ45 10 base 100 T with 2 Fibre Ports.	Nos.	9	49806		448254
ii	Supply, installation & testing of Layer III Managed Ethernet switch: 24 port RJ45 10 base 1000T with 2-Fibre Ports	Nos.	1	164500		164500
14.11	19 INCH RACK MOUNT					
i	19 inch rack mount console unit - 42 U with 4 cooling fans on top and bottom at control room.	Nos.	1	75975		75975
ii	19 inch rack mount console unit - 6 U for Layer 2 switches on field.	Nos.	9	8598		77382
iii	Any other network equipment like Patch Chords, Patch Panels, Jack Panels, Splicing and LIU required for successful operation.	Lot	1	100000		100000
14.12	Supply, laying & testing of Cat 5 / 6 UTP cable with all termination crimping etc.	RM	12000	51		612000
14.13	Supply, laying & testing of 6 Core Fiber optic cable.	RM	100	186		18600
14.14	Supply, laying & testing of 3 x 1.5 sqmm Power Cable for powering all the cameras.	RM	500	75		37500
14.15	Supply and fixing of following sizes of MS conduit along with the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required					
i	25 mm dia	Metre	10000	182		1820000
	TOTAL SUBHEAD 14 : CCTV SYSTEM					13426243
15.00	SUBHEAD 15: ACCESS CONTROL AND BOOM BARRIER SYSTEM					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
15.01	Supply, Installation , Testing and Commissioning of Micro processor based access control system engineered with 32 bit CPU to cater to the multiple Readers and Multiple locations , Expandable, Networkable . TCP/IP protocol compatible disributed Intelligence, Supporting Two Readers, and having flash memeory , can be expandable card data base upto 55000 cards and transaction buffer of 45000 transection, 128 accesss level , 127 time zone Levels, 8 supervised inputs and 4 Nos of relay outputs for easy and reliable interface with the 3rd party systems. Complete with Digital Power supply etc as required.	Nos.	8	66130		529040
15.02	Supply, Installation , Testing and Commissioning of Single- User Software Plateform pioneer in integrating Video, access control and Intrusion detection Systems.The Software is capable of managing the users from multiple locations,Real time event / alarm Monitoring, Schedule Guard Tour feature.	Nos.	1	56472		56472
15.03	Supply, Installation , Testing and Commissioning of PC with DVD Drive and 1 TB HDD, 22" LED Monitor and required Keyboard, Adapter for Ethernet networking ,compatible with TCP/IP network protocols with a minimum bandwidth of 100Mbps along with Microsoft latest Windows software OS complete in all respects as per specifications.	Set	1	72715		72715
	i 4 Gigabyte of RAM memory					
	ii 1 TB Gigabytes of hard disk space					
	iii DVD Combo Drive					
	iv 22" LED colour monitor					
	v Optical Mouse with 2 Mouse Pads					
	vi Multimedia Keyboard					
	vii 10/100/ 1000 MBPS PCI LAN onboard card.					
15.04	i Supply, Installation , Testing and Commissioning of long Range Proximity Reader suitable for external / Internal environment WITH Mounting Stain less steel stand complete as required.	Nos	2	40171		80342
15.04	ii Supply, Installation , Testing and Commissioning of Normal Range Proximity Reader suitable for Internal environment complete as required.	Nos	14	7976		111664

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
15.05	Supply, Installation , Testing and Commissioning of HID 34-bit Proximity Access Card. Standard HID proximity card with slot hole punch on the short side for badge clips (BC-1).	Nos	250	408		102000
15.06	Supply, Installation , Testing and Commissioning of Single Leaf Electromagnetic lock 600LBS with LED and NO/NC Contact with U & L Bracket complete as required.	Nos	2	7976		15952
15.07	Supply, Installation , Testing and Commissioning of Double Leaf Electromagnetic lock 600LBS with LED and NO/NC Contact with U & L Bracket complete as required.	Nos	14	10409		145726
15.08	Supply, Installation , Testing and Commissioning of egress switch with Metal Plate complete as required.	Nos	14	1688		23632
15.06	Supply, Laying , Testing and Commissioning of multistand copper conductor PVC sheathed & shielded Cable 8Cx0.5sqmm dia meter complete as required.	Meter	500	102		51000
15.07	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
	i 25 mm	Metre	1000	182		182000
15.08	Supply, Installation , Testing and Commissioning of 2 x 1.5 sq. mm dia meter ,copper conductor PVC insulated cable complete in existing Conduit as require	Meter	400	56		22400
15.09	Supply of Connectors, interfaces, Mounting hardware, Cords, Jacks, Plugs,tags, identifiers, fixtures, clamps, screws, nut - bolts etc as required for the installation and commissioning	set	1	5823		5823
15.10	a Boom Barrier					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
i)	Supply, Installation , Testing and Commissioning of High Speed Microprocessor based with activation system comprising Hydraulic pump unit , Plunger pistons, balancing by compression spring , internal stops adjustable for open or close beam positions . the barrier for continuous use for vehicular span of up to 7 mtrs, includes Boom with controller & accessories , 100% duty cycle. with complete as required	Nos	2	191540		383080
ii)	Supply, Installation , Testing and Commissioning of Twin Channel Exit Push putton for open close with green and red Buttons.	Nos	2	6113		12226
iii)	Supply, Installation , Testing and Commissioning of Photocell based safety device to avoid closing of the barrier when a Vehicle is crossing the barrier.	set	2	8442		16884
iv)	Supply, Installation , Testing and Commissioning of 3 x 1.5 sq. mm dia meter ,copper conductor PVC cable in existing Conduit complete as required..	Meter	200	75		15000
v)	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
a	25 mm	Metre	500	182		91000
vi)	Supply of Connectors, interfaces, Mounting hardware, Cords, Jacks, Plugs,tags, identifiers, fixtures, clamps, screws, nut - bolts etc as required for the installation and commissioning.	Set	1	37845		37845
	TOTAL SUBHEAD 15: ACCESS CONTROL AND BOOM BARRIER SYSTEM					1954801
	SUB HEAD16 : NURSE CALL SYSTEM					
16.00	NURSE CALL SYSTEM					
16.00	Nurse call system shall have products certified/ approval by VDE 0834/ UL 1069					
16.01	Supply ,Installation ,Testing and commissioning of VDE 0834 certified/ approved System Switch:					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	<p>The system switch forms a decentralised communications node for exchanging data between the connected system devices and the rest of the communications system, consisting of :</p> <ul style="list-style-type: none"> - 1 x RJ45 socket, 100Mb IP Port (IEEE802.3 100BaseTX), galvanically isolated conforming to EN 60950 and VDE 0834; - 7 x RJ45 sockets, each for a 100Mb IP system port (IEEE802.3 100BaseTX) for connecting all IP capable system modules; - 1 x RJ45 socket, 100Mb IP Port (IEEE802.3 100BaseTX) for connecting communications, staff and ward terminals as well as control panel PCs or for redundant Connection. - Control LEDs for indicating the current operating state; - 2 x RJ45 sockets for connection of the external data bus; - All IP system modules are supplied with power using Power over LAN technology; 	Nos.	8	35062.00		280496
16.02	Supply ,Installation ,Testing and commissioning of Nurse Station Terminal having following features :					
	<p>Nurse Terminal shall comprises of 6.5" TFT, Touch screen colour graphic display for displaying all details , a smash proof glass panel (to protect the sensitive display from unnecessary contact during cleaning and other processes) , touch screen function keys for operating the system, Querying receiver for speaking discretely, Microphone and loudspeaker for hands-free speech (incl. volume control), automatic changeover between hands-free and discrete speaking , 2.8m connection cable with an RJ45 connection plug, which is protected, from disconnection. The terminal shall display date and time, indication of all presence, all set remindedrs, indication of all calls. All call indications follow the priority and must display the exact location of the calls.</p>	Nos.	20	81812		1636240
16.03	Supply ,Installation ,Testing and commissioning of Patient Handset - (For Non Speech Wards/ Rooms) having following features					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	<p>Consisting of a plastic case in antimicrobial finish having</p> <ul style="list-style-type: none"> - Call button with nurse symbol with integrated finder and reassurance light on the top end of the unit, - Membrane keypad in antimicrobial finish with integrated LEDS for operation, consisting of: <ul style="list-style-type: none"> - 1 call key, - 2 lighting control keys - 2.80 metre connection cable with auto-disconnecting RJ45 connector plug. <p>To shall be supplied with cradel for holding patient terminals.</p>	Nos.	530	4090		2167700
16.04	Supply ,Installation ,Testing and commissioning of Connection module/ Bed Head Unit for Patient Terminal (For Non Speech Wards/ Rooms) having following features					
	<p>Connection module for patient handset shall consist of:</p> <ul style="list-style-type: none"> - 1 x RJ45 socket marked in colour and with measures to ensure that the push button is correctly connected, including auto disconnect mechanism, - 1 membrane keypad with: <ul style="list-style-type: none"> - 1 call button (red with nurse symbol) including a finder/reassurance light, - 1 presence key/ cancel button (green) including a control LED, 	Nos.	530	7012		3716360
16.05	Supply ,Installation ,Testing and commissioning of Patient Handset with connection module - With Speech - (For Single bed rooms) having following features					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	<p>For operation by patients from their beds to carry out the functions listed below, with the following characteristics:</p> <ul style="list-style-type: none"> - Nurse call with possibility for communications, - Service call with possibility for communications, - Additional calls via service call key (optional) with possibility for communications, - Integrated IP telephone end device (H.323 or SIP protocol stack) - Controlling two independent lighting circuits, - Controlling electronically driven shutters or other environmental applications, - Automatic volume switching when using the PAT in the cradle, - Plastic case and membrane keypad in fungicidal material, - Splash resistant case, consisting of: <ul style="list-style-type: none"> - Call button with nurse symbol with integrated finder and reassurance light on the top end of the unit, - Loudspeaker, microphone, headphones socket, - A fully-graphical display with a resolution of 128 x 64 pixels, - 2.80 m connection cable with a RJ45 plug which is protected against disconnection 	Nos.	10	29219		292190
16.06	Supply ,Installation ,Testing and commissioning of Room Terminal:(For Single bedded rooms) having following features					
	<p>Supply of Room Terminal with integrated functional components and operating membrane keypad with symbols; consisting of:</p> <ul style="list-style-type: none"> - Electronic buzzer for acoustic call forwarding - Membrane keypad for operation, comprising of: <ul style="list-style-type: none"> - Call button (red) with integrated finder and reassurance light - Doctor call button (blue) with integrated finder and reassurance light, - Presence button (green) with control LED, - Presence button (blue) with control LED, 	Nos.	10	11103		111030
16.07	Supply ,Installation ,Testing and commissioning of Pull cord type call button: WC area - (For Single bedded rooms) having following features					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	<p>Pull cord for WC shall consist of:</p> <ul style="list-style-type: none"> - integrated finder lights or reassurance light - micro switch with a 2 metre pull cord and a luminous grip with a nurse call symbol, <p>Pull cord characteristics:</p> <p>max. force at break: 120N (ca. 12 kg):</p> <p>for hygiene reasons it must also be possible to change the pull cord very easily using a snap hook;</p> <ul style="list-style-type: none"> - Moisture Protected 	Nos.	10	2337		23370
16.08	Supply ,Installation ,Testing and commissioningof Lamp Module having following features					
	<p>For optical indication of calls, presences and reminders in the relevant colours and suit-able for fitting on to an installation case, consisting of:</p> <ul style="list-style-type: none"> - 4 light chambers with light reflectors for homogeneous illumination, - 1 light chamber fitted with 3 ultra bright red LEDs, - 1 light chamber fitted with 3 ultra bright white LEDs, - 1 light chamber fitted with 3 ultra bright green LEDs, - 1 light chamber fitted with 3 ultra bright blue LEDs, - Every light chamber conforms to the light strength - the LED life expectancy is approximately 100,000 operating hours, 	Nos.	10	2571		25710
16.09	Supply ,Installation ,Testing and commissioning of Networking & Integration with IPBX					
	i Supply of Installation ,Testing and commissioning of Management center - Nurse Call Server					
	<p>Management Centre Server for Nurse Call System for uploading the firmware and the system configuration, for operating interfaces to foreign systems, for logging of all system events and as a central location for system configuration and remote maintenance as per VDE 0834 - Intel Xeon 3220 2,4GHz or similar</p> <ul style="list-style-type: none"> - 2 GB RAM, 1 x 160GB HDD - 1 x DVD harddrive, 2 x Gbit LAN Ethernet RJ45 - 1 x serial connection RS232 and 2 x USBV2.0 - 1 x PCI or 1 x PICE socket, support for SUSE Linux enterprise Server from V10.1 	Nos	1	163625		163625
	ii Supply ,Installation ,Testing and commissioning of Server Switch					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	Uplink connections: 4 x 1Gb uplink ports, RJ45 (GBIC capable, possibility for LWL) Connections downlink: 24 x 1Gb downlink ports, RJ45	Nos	1	140250		140250
iii	Supply ,Installation ,Testing and commissioning of Backbone Switch : We can use client existing layer 2/ layer 3 switches as well. Need port equal to SWI9-2IO					
	Floor Switch: Uplink connections: 2 x 1Gb uplink ports, RJ45 (GBIC capable, possibility for LWL) Connections downlink: 24 x 100Mb downlink ports, RJ45 Switch must have all the Layer 2 and Layer 3 function which is mentioned in the tender Document	Nos	2	49000		98000
iv	Supply ,Installation ,Testing and commissioning of Software - Telephone system license					
	This interface used Voice over IP technology in accordance with the standard H.323 or SIP (G.711 a-law, G.711 μ-law, G.729 a/b) and is used for telecommunications between the patient terminals and the public telephone network as well as to other in-house extensions	Nos	1	105200		105200
v	Supply ,Installation ,Testing and commissioning of Software- Event Database Software					
	Software pack installed on the system server for automatically logging all events in the entire communications system, such as, e.g., calls, presence markings, call acknowledgements, reminders.	Nos	1	105200		105200
	Supply ,Installation ,Testing and commissioning of Software - Integration with Internet Server					
	This interface is used for data transfer between the multimedia terminals or patient laptops, the system's own application server and the Internet Proxy Server or an Internet gateway to the ISP that are both located on site. For security reasons bandwidth restrictions are imposed for this service by use of the QoS configuration of all switches.	Nos	1	163858		163858
16.10	Supply, laying & testing of 8 core CAT6 UTP cable	Mtrs	8000	40		320000
16.11	Supply, laying & testing of 2C x 1.5 Sq. mm FRLS armoured power cable	Mtrs	1000	65		65000

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
16.12	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
	i 20 mm MS conduit	Mtrs	4000	157.00		628000
	TOTAL SUB HEAD 16: NURSE CALL SYSTEM AS MENTIONED ABOVE					10042229
17.00	SUB HEAD 17 : LIFTS					
17.01	Design, manufacture, supply, installation, testing and commissioning of following 26 passenger cum Hospital Lift (1768 kg), serving different floors in the lift shaft including machine room at top. The lift should be as per detailed specification/ drawing enclosed as required and as under: Lift Panel Should be with Backnet / /Mod Bus for for its intergation with BMS					
	- Travel: As per architectural drawing.					
	- Controller: A.C. variable voltage & variable frequency					
	- Automatic rescue device complete with dry maintenance free batteries as required.					
	- Operation: Microprocessor based single automatic push button/ simplex selective collective/duplex collective selective with / without attendant.					
	- All push buttons will have Brail also.					
	- 415 V, 3 phase, 50 Hz, 4 wire system					
	- Type of doors: a) Car : Power operated, telescopic opening, horizontal sliding stainless steel scratch proof finish perferably Moon rock finish(b) Landing doors: Stainless steel scratch proof. Perferably Moon rock finish Lift landing doors shall have a fire resistance of one hour.					
	- Car Enclosure : Scratch proof stainless steel finish peferably moon rock					
	- Mirror of suitable size to be fixed inside the lift car.					
	- Stretcher Graud					
	- Voice announcement system in the car to announce the position of the elevator in the hoistway as the car passes or stops at a floor served by the elevator.					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
-	Telephone with minimum two connections one at operator's room and other at guard/ security room and the emergency signal with re-chargeable batteries as source of supply be made in the lift car.					
-	Toe guard, IR curtain on full height, two phase fireman's drive control/ switch and potential free contacts etc to be provided.					
i	Floors : LG+G+8, (10 stops & 10 openings) Speed -1 MPS	Each	8	4065250		32522000
17.02	Design, manufacture, supply, installation, testing and commissioning of following 20 passenger cum Hospital Lift (1360 kg), serving different floors in the lift shaft including machine room at top. The lift should be as per detailed specification/ drawing enclosed as required and as under: Lift Panel Should be with Backnet /Mod Bus for its intergation with BMS					
-	Travel: As per architectural drawing.					
-	Controller: A.C. variable voltage & variable frequency					
-	Automatic rescue device complete with dry maintenance free batteries as required.					
-	Operation: Microprocessor based single automatic push button/ simplex selective collective/duplex collective selective with / without attendant.					
-	All push buttons will have Brail also.					
-	415 V, 3 phase, 50 Hz, 4 wire system					
-	Type of doors: a) Car : Power operated, telescopic opening, horizontal sliding stainless steel scratch proof finish(b) Landing doors: Stainless steel scratch proof. Perferably Moon rock finish Lift landing doors shall have a fire resistance of one hour.					
-	Car Enclosure : Scratch proof stainless steel finish peferably moon rock					
-	Mirror of suitable size to be fixed inside the lift car.					
-	Voice announcement system in the car to announce the position of the elevator in the hoistway as the car passes or stops at a floor served by the elevator.					
-	Telephone with minimum two connections one at operator's room and other at guard/ security room and the emergency signal with re-chargeable batteries as source of supply be made in the lift car.					
-	Toe guard, IR curtain on full height, two phase fireman's drive control/ switch and potential free contacts etc to be provided.					
i	Floors : LG+G+8, (10 stops & 10 openings) Speed -1.5 MPS	Each	2	3933000		7866000

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	ii Floors : G+8, (9 stops & 9 openings) Speed -1.5 MPS	Each	2	3846750		7693500
	DUMB Waiter					
17.03	Supply, Fixing , Testing and Commissioning of Dumb Waiter of Capacity 250kgs. Floors : LG+G+8 (10 stops & 10 openings) Complete as per Required. Fabrication in M.S finish	Each	2	1144250		2288500
	TOTAL SUB HEAD 17: LIFTS AS MENTIONED ABOVE					50370000
	SUB HEAD 18: LT CABLES					
18.00	LT CABLES					
18.01	Supply of following sizes of 1.1 kV grade multicore aluminium conductor PVC sheathed armoured XLPE cable as per IS 7098.					
	i 3.5 Core 25 Sqmm.	Metre	1200	232		278400
	ii 3.5 Core 35 Sqmm.	Metre	200	287		57400
	iii 3.5 Core 50 Sqmm.	Metre	500	369		184500
	iii 3.5 Core 70 Sqmm.	Metre	300	501		150300
	iv 3.5 Core 95 Sqmm.	Metre	200	622		124400
	v 3.5 Core 120 Sqmm.	Metre	1000	777		777000
	vi 3.5 Core 150 Sqmm.	Metre	100	921		92100
	vii 3.5 Core 185Sqmm.	Metre	900	1146		1031400
	viii 3.5 Core 240 Sqmm.	Metre	2500	1445		3612500
	ix 3.5 Core 300 Sqmm.	Metre	4500	1771		7969500
	x 3.5 Core 400 Sqmm	Metre	1600	2253		3604800
	xi 4 Core 10Sq mm	Metre	200	166		33200
	xii 4 Core 6 Sq mm	Metre	200	132		26400
	xiii 3 Core 6 Sqmm.	Metre	200	117		23400
	xiv 3 Core 4 Sqmm.	Metre	300	100		30000
	xv 2 Core 10 Sq mm	Metre	1500	126		189000
	xvi 2 Core 16 Sq mm	Metre	1000	148		148000
18.02	Laying of one number PVC insulated and PVC sheathed power cable 1.1kV grade direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required					
	i Up to 35 sq.mm	Metre	3220	206		663320

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	ii Above 35 Sq mm and upto 95 Sq mm	Metre	350	214		74900
	iii Above 95 Sq mm and up to 185 Sq mm	Metre	1400	223		312200
	iv Above 185 Sq mm and up to 400 Sq mm	Metre	6650	248		1649200
18.03	Laying of one number PVC insulated and PVC sheathed power cable 1.1kV grade direct in the existing RCC/ Hume/Stoneware/Metal pipe as required					
	i Up to 35 sq.mm	Metre	690	18		12420
	ii Above 35 Sq mm and upto 95 Sq mm	Metre	75	28		2100
	iii Above 95 Sq mm and up to 185 Sq mm	Metre	300	37		11100
	iv Above 185 Sq mm and up to 400 Sq mm	Metre	1425	65		92625
18.04	Laying of one number PVC insulated and PVC sheathed power cable 1.1kV grade on surface or on existing cable tray complete as required.					
	i Up to 35 sq.mm	Metre	690	21		14490
	ii Above 35 Sq mm and upto 95 Sq mm	Metre	75	49		3675
	iii Above 95 Sq mm and up to 185 Sq mm	Metre	300	61		18300
	iv Above 185 Sq mm and up to 400 Sq mm	Metre	1425	96		136800
18.05	Supplying and making end termination with suitable size Aluminum lugs including double compression glands of following sizes of 1.1. kv grade multicore aluminium conductor PVC insulated and PVC sheathed					
	i 3.5 Core 25 Sqmm.	Each	20	257		5140
	ii 3.5 Core 35 Sqmm.	Each	174	282		49068
	iii 3.5 Core 50 Sqmm.	Each	10	354		3540
	iii 3.5 Core 70 Sqmm.	Each	10	394		3940
	iv 3.5 Core 95 Sqmm.	Each	10	482		4820
	v 3.5 Core 120 Sqmm.	Each	10	500		5000
	vi 3.5 Core 150 Sqmm.	Each	10	592		5920
	vii 3.5 Core 185Sqmm.	Each	14	804		11256
	viii 3.5 Core 240 Sqmm.	Each	14	989		13846
	ix 3.5 Core 300 Sqmm.	Each	62	1106		68572
	x 3.5 Core 400 Sqmm	Each	20	1389		27780
	xi 4 Core 10Sq mm	Each	20	203		4060
	xii 4 Core 6 Sq mm	Each	10	180		1800
	xiii 3 Core 6 Sqmm.	Each	10	161		1610
	xiv 3 Core 4 Sqmm.	Each	10	161		1610

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
xv	2 Core 10 Sq mm	Each	10	148		1480
xvi	2 Core 16 Sq mm	Each	10	160		1600
19.06	Supply and laying of Flexiable Industrial cable, Copper Conductor , FR PVC insulated 1100 volts conforming to IS 694/1990 or ammended uptodate in fexiabel MS conduit / Pipe ,Complete with termination and testing as per requirement.					
i	4 Sqmm	Metre	100	43		4300
ii	6 Sqmm	Metre	100	65		6500
iii	10 Sqmm	Metre	100	11		1100
iv	16 Sqmm	Metre	100	178		17800
v	25 Sqmm	Metre	100	297		29700
vi	50 Sqmm	Metre	100	586		58600
	TOTAL SUBHEAD 18: LT CABLES AS MENTIONED ABOVE					21652472
	SUBHEAD 19: EARTHING					
19.00	EARTHING					
19.01	Supply and installation of one number earth pit with advance maintainance free Earthing System consisting of one Number, CPRI tested copper bonded steel electrode of minimum 25 mm dia. (as per IE C62561-2) With a minimum coating thickness of 250 microns and length of 3 meters, 25 kg/Electrode of earth enhancing compound (tested as per IEC-62561-7) fill the 100mm augered hole surrounding to the electrode , SS Universal Clamp of Size 175X50X3 mm for terminal Connection including Poly Propylene Heavy duty Pit cover including all accessories , excavation of earth, filling with back fill compound, and earth pit marking. The Complete installation shall be as per the drawing, technical specifications and as required	Set	20	14864		297280

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
19.02	Supply and installation of one number earth pit with advance maintenance free Earthing System consisting of one Number, CPRI tested copper bonded steel electrode of minimum 19 mm dia (as per IE C62561-2) With a minimum. coating thickness of 250 microns and length of 3 meters. 25 kg/Electrode of earth enhancing compound (tested as per IEC-62561-7) fill the 100mm augered hole surrounding to the electrode , SS Universal Clamp of Size 175X50X3 mm for terminal Connection including Poly Propylene Heavy duty Pit cover including all accessories , excavation of earth, filling with back fill compound, and earth pit marking. The Complete installation shall be as per the drawing, technical specifications and as required	Set	24	13064		313536
19.03	Supply and installation of one number earth pit with of advance maintenance free Earthing System consisting of one Number UL Listed CPRI tested copper bonded steel electrode of minimum 13 mm dia. (as per IE C62561-2) With a minimum. coating thickness of 250 microns and length of 3 meters. 25 kg/Electrode of earth enhancing compound (tested as per IEC-62561-7) fill the 100mm augered hole surrounding to the electrode , SS Universal Clamp of Size 175X50X3 mm for terminal Connection including Poly Propylene Heavy duty Pit cover including all accessories , excavation of earth, filling with back fill compound, and earth pit marking. The Complete installation shall be as per the drawing, technical specifications and as required	Set	70	3910		273700
19.04	Supply and installation of one number earth pit with of maintenance free earthing system consisting of 1250 mm long copper bonded steel electrode of 14.2 mm dia.tested as per IEC 62561-2.Minimum copper coating thickness on Rod is 100 microns. 5 kg/Electrode of earth enhancing compound tested as per IEC 62561-7 fill the 75-100mm augered hole surrounding to the electrode.It consist the following Item opper Alloy clamp suitable Poly PropyleneHeavy duty Pit cover including all accessories , excavation of earth, filling with back fill compound, and earth pit marking. The Complete installation shall be as per the drawing, technical specifications and as required	Set	6	109		654
19.05	Supplying and laying 25mmX5mm GI strip at 0.5m below ground level as strip earth electrode, including soldering etc. as required.	Metre	200	142		28400
19.06	Providing and fixing 25mmX5mm GI strip on surface/on existing cable trench/RCC pipe/GI pipe or in recess for earth electrode as required.	Metre	2000	273		546000

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
18.07	Supplying and laying 50mmX6mm GI strip at 0.5m below ground level as strip earth electrode, including soldering etc. as required.	Metre	500	368		184000
19.08	Providing and fixing 50mmX6mm GI strip on surface/on existing cable trench/RCC pipe/GI pipe or in recess for earth electrode as required.	Metre	500	856		428000
19.09	Providing and fixing 25mmX5mm Copper strip on surface/on existing cable trench/RCC pipe/GI pipe or in recess for earth electrode as required.	Metre	500	753		376500
19.10	Supplying and laying 25mmX5mm Copper strip at 0.5m below ground level as strip earth electrode, including soldering etc. as required.	Metre	400	1883		753200
19.11	Supplying and laying 50mmX6mm Copper strip at 0.5m below ground level as strip earth electrode, including soldering etc. as required.	Metre	400	2140		856000
19.12	Providing and fixing 50mmX6mm Copper strip on surface/on existing cable trench/RCC pipe/GI pipe or in recess for earth electrode as required.	Metre	500	1082		541000
19.13	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required	Metre	500	421		210500
19.14	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	500	34		17000
19.15	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	Metre	1000	384		384000
	TOTAL SUBHEAD 19: EARTHING AS MENTIONED ABOVE					5209770

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
20.00	SUBHEAD 20: LIGHTNING PROTECTION					
	LIGHTNING PROTECTION					
20.01	Supply and installation of one number earth pit with of advance maintainance free Earthing System consisting of one Number UL Listed CPRI tested copper bonded steel electrode of minimum 13 mm dia. (as per IE C62561-2) With a minimum. coating thickness of 250 microns and length of 3 meters. 25 kg/Electrode of earth enhancing compound (tested as per IEC-62561-7) fill the 100mm augered hole surrounding to the electrode , SS Universal Clamp of Size 175X50X3 mm for terminal Connection including Poly Propylene Heavy duty Pit cover including all accessories , excavation of earth, filling with back fill compound, and earth pit marking. The Complete installation shall be as per the drawing, technical specifications and as required	Set	16	13000		208000
20.02	Providing and fixing of lightening conductor finial, made of 25mm. dia. 300mm., long GI tube, having single prong at top, with 85 mm. dia. 6 mm. thick GI base plate including holes etc. complete as required.	Each	20	369		7380
20.03	Providing and and fixing GI tape 20mm X 3 mm thick on parapet or surface of wall for lightning conductor as required. (For horizontal runs).	Metre	4000	68		272000
20.04	Providing and and fixing GI tape 20mm X 3 mm thick on parapet or surface of wall for lightning conductor as required. (For vertical runs).	Metre	1000	98		98000
20.05	Providing and fixing testing joint, made of 20mmX3mm thick GI strip, 125 mm. long, with 4 no.'s of GI bolts, nuts, check nuts, bar shaddles, and spring washers etc. complete as required.	Each	16	71		1136
20.06	Providing and laying GI tape, 32 mm X 6 mm thick, from test joint upto earth electrode directly in ground as required.	Metre	500	141		70500
	TOTAL SUBHEAD 20: LIGHTENING PROTECTION AS MENTIONED ABOVE					657016

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	SUB HEAD 21: SOLAR PHOTVOLTAIC POWER GENERATION					
21.00	SOLAR PHOTVOLTAIC POWER GENERATION					
22.01	Supply, installation, testing and commissioning of grid interactive roof top solar photovoltaic power generation system including solar modules, module mounting structure, grid interactive solar inverter, data logger with temperature and irradiance sensor, AC distribution board, multi data meter, cables, contacts, earthing kit, GI strips (25 x 5 mm), vertical air terminal and installation kit etc. complete in ready to use condition and as per technical specifications.					
	i 60KWp	Set	1	4800000		4800000
	ii Extra for providing space frame for above 60 KWp solar system.	Set	1	1200000		1200000
	TOTAL SUB HEAD 21: SOLAR PHOTVOLTAIC POWER GENERATION AS MENTIONED ABOVE					6000000
22.00	SUB HEAD 22: LIGHT CONTROL SOLUTION					
	LIGHT CONTROL SOLUTION					
22.01	Supply, Installation, Testing & Commissioning of DALI Controller. Every Loop will control 64 Lights/DALI Ballast and controller will control 192 Lights/DALI Ballast.	Nos.	2	98059		196118
22.02	Supply, Installation, testing and commissioning of 6 Button Keypad having inbuilt proximate sensor, pattern lockable with IP22 protection and Multiple settings on one button	Nos.	10	13883		138830
22.03	Supply, Installation, testing and commissioning of communication module for Keypad	Nos.	10	13883		138830
22.04	Supply, Installation, testing and commissioning of 360 degree Ceiling recess mountable 360 degree multifunction sensor that combines motion detection (PIR), Infrared remote control reception (IR) and ambient light level detection (PE) into one device	Nos.	100	21518		2151800

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
22.05	Supply, Installation, testing and commissioning of System Power Supply to boost the system power	Nos.	3	35965		107895
22.06	Supply, Installation, testing and commissioning of Network Gateway to extend the network	Nos.	3	28895		86685
22.07	Supply, Installation, testing and commissioning of Standalone Ceiling Mounted Motion PIR sensor 360 degree	Nos.	200	5610		1122000
22.08	Supply, Installation, testing and commissioning of Standalone Wall Mounted Motion PIR sensor 90 degree	Nos.	100	8914		891400
22.09	Supply, Installation, testing and commissioning of Panel for Automation with Incoming Protection MCB 3P & Surge Arrestor and Outgoing MCB protection	Nos.	10	56925		569250
22.10	Supplying and fixing 2 Module GI Box on surface or in recess for Keypad	Nos.	10	114		1140
22.11	Supply, Installation, testing and commissioning of DALI Control Cable 2 core 0.75 sqm to connect DALI Ballast	Metre	8000	34		272000
22.12	Supply, Installation, testing and commissioning of Cat 6 cable to connect all Automation devices to create a network	Metre	5000	44		220000
	TOTAL SUB HEAD 22: LIGHT CONTROL SOLUTION MENTIONED ABOVE					5895948
23.00	SUB HEAD 23: PUBLIC ADDRESS SYSTEM					
23.00	PUBLIC ADDRESS SYSTEM					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
23.01	Supply, Installation, testing and commissioning of IP based PA Controller capable of handling 12 zones, Digital audio controller complying to IEC EN 60849 /DVA016 with built-in high and low pass filters and parametric equalizer . with in built 500W digital amplifier and 8 Out puts Led Indication of each zone independent output control button and volume control. network input , BGM input local imergency Mic INPUT, can work with 1 Extra stand by amplifier, when the inbuilt amplifier come out faulty the standby amplifier take over automatically. support 24Vdc input interface	Set	1	309724		309724
23.02	Supply, Installation, testing and commissioning of Power Amplifier SCPA2500 /70V, 100V& 4-16 ohm , 2 channel power amplifier , -Inrush restraint and softstart -Integrated electronic protection against thermal overload and short circuit. -Temperature controlled fans, airflow from front to rear. -Method of control: Class AB -Power output of amplifier of suitable capacity with Spare capacity of 15%. -Output range: 50 Hz – 22kHz; 0/-0,5 dB -Signal to noise ratio (not valuated): > 105 dB -Channel separation: > 75 dB -THD (total harmonic distortion): < 0,08% -Input level at max. output voltage: 0 dBu -The amplifier has to be switched into Stand-by Mode in case of power loss by the control centre.	Set	1	225000		225000
23.03	Supply, Installation, testing and commissioning of Digital Call Station 12 zone -Fully digital call station with electret microphone (cardioid-characteristics) on flexible 300mm swan neck complete with wideband loudspeaker for monitoring, pre-listen and intercom operation for the networked PA system. -Permanent inaudible supervision of the microphone and its capsule in accordance to EN 60849. -16 free programmable and label able keys.	Set	1	80050		80050
23.04	Supply, Installation, Testing & Commissioning of Volume Controller for all the closed areas.	Nos.	6	2871		17226

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
23.05	Supply, Installation, Testing & Commissioning of 6W , transformer tapping 100 volt line multitap , driver impedance 8 ohm , SPL @ 1m, 1 Watt ,(Ceiling speaker)	Nos	300	1455		436500
23.06	Supply, Installation, Testing and Commissioning of Wall mountable type column type Speaker 6 watt , SPL 90 dB, Freq response 200-15000 Hz, rated input voltage 100 Volts, & rated impedance 1667 Ohms,	Nos.	25	2155		53875
23.07	Supply, Installation, Testing & Commissioning of Music source CD/MP3 Player 1 U table top and rack mount clearly visible LCD display , micro computer and touch button operation complete as required.	No.	1	10339		10339
23.08	Supply and drawing of 2x 1.5 sq. mm ATC Copper conductor cable/ wire in existing M. S. Conduit, Complete with termination and testing as per requirement.	RM	8000	67		536000
23.09	Supply and laying of following size of M.S, Conduit pipe in recess including all accessories MS pull/junction boxes, GI fish wire of 6 SWG, fixing hardware etc., including cutting, chasing the walls/floor and plastering the chased portion and making good the damages etc., complete as required.					
	i 25 mm dia	RM	7500	182		1365000
23.10	Supply, installation, testing and commissioning of 19" Equipment Rack with power coated finish with front lockable Door with M. S. Framed translucent Acrylic material, 2 Nos of fans for heat exhaust, Top & Bottom entry knock outs, back side lockable Door , inbuilt MCB, Power Points, raceways and partitions, one no. sliding Tray etc. complete as required	No.	1	56763		56763
	TOTAL SUB HEAD 23: PUBLIC ADDRESS SYSTEM MENTIONED ABOVE					3090477
24.00	SUB HEAD 24: BUILDING MANAGEMENT SYSTEM:					
24.00	BUILDING MANAGEMENT SYSTEM:					
	Design, Supply, Installation, Testing, Commissioning & Handing over the Building Management System (BMS) and allied systems as per specifications as below.					
	A) GUI Hardware					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
1.0	BMS Computer System: server grade i7 with 3GHz minimum CPU speed, minimum of 2 GB RAM, Drive & 260GB HDD, optical Mouse, 106 keys keyboard, 10/100 Mbps Ethernet card ,USB connection & internal modem, 21" colour graphics LED monitor & Original Windows 7 loaded.including A-4 size laser printer	Set	1	120750		120750
B)	Supply, Installation, Testing, Commissioning of the following Softwares					
i	<p>i) BMS System Software : Enterprize level, platform independent, Graphical scada Software meeting the requirements in the Given I/O Summary & technical specifications with 2 simultaneous user license including configuration and facility to create / provide the object oriented graphic mapping for all I/O Summary points, animate the Graphics, Navigation between pages, display of logs, changing the time zones, popup alarms, configurable password protection for Building Mgmt System as per Specifications. Software shall be able to communicate with, Bacnet-IP/Modbus devices simultaneously. This includes the programming / commissioning software also.</p> <p>ii) Energy Management module for energy performance monitoring, reporting and analysis.The system should collect, store and analyses energy data that is retrieved from the Building Management System.Comparisons can be made with current data against historical data (targeting), and against profiles which have been set up for expected consumption, based on the historical data. This can also creater various charts and graphs for energy trends The software shall be for 100 points.</p> <p>iii) Software module for Fire alarm integration- BACNet/Modbus integration of fire alarm integration- 2200 points. This software will have capability to create the map of site and all detectors marked in place. The necessary pop-ups will be vreater for alarm and other faults.</p> <p>iv) Software module for Access Control integration- BACNet /Modbus integration of- 300 points. This software will have capability to create the map of site and all detectors marked in place. The necessary pop-ups will be vreater for alarm and other faults.</p>	Set	1	502400		502400
C)	SOFT INTEGRATORS					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	Supply, Installation & Commissioning of soft integrators as per the specs and IO summary, These integrators will communicate to the third party devices on protocols like Modbus-RS485, BACNet-RS485, BACNet-IP etc. This integrators should have RS485, RS232 and ethernet ports for supporting all mentioned protocols. These integrators will be connected to the network on IP and will not require any converters/MUX for integration.					
a	Chiller System Interface on BACnet/Modbus MSTP - 4 Nos. (50 I/O's per Chiller)					
b	LT Panel Multifunction Meters integration on Modbus RTU /RS485- 70 Nos.(10 points / per multifunction Meter) all ACBs and MCBs					
c	VFD on Modbus RTU - 10 Nos.(15 points / Meter)					
d	Lifts on Modbus RS485 - 12 No.(20 points/unit)					
e	DG on Modbus RS485 - 4 No.(20 points/unit)					
f	Chiller Plant Manager on Bacnet IP - 1 No.(200 points)					
g	UPS on Modbus RS485 - 4 No.(20 points/unit)					
h	Fire Alarm Integration					
i	ACS integration					
	Supply, Installation, Testing, Commissioning of the above software	Lot	1	1293750		1293750
D)	DDCs					
	Supply, Installation & Commissioning of IP based, peer to peer networkable Direct Digital Controllers with required I/O module as per IO summary. The BACNet-IP networkable controllers shall be 32 bit, UL Listed, microprocessor based with builtin networkable type with real time clock with programmable memory or as per manufacturer standard specification. The networkable DDC's shall be connected directly on IP LAN and will support master to master communication with all other DDCs and. The data of all DDCs will be shared with each other. DDCs will be enclosed in lockable MS mounting cabinets duly powder coated connector strip, internal wiring and space to house controller & relays, connector etc. as per IO Summary. Any Multiplexer (Mux) / AI to DI / DI to AI converters shall not be allowed.					
a	DDC Panel for AHUs with 25% spare	No.	26	132250		34,38,500

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
b	DDC Panel for AHUs For OT's with 25% spare	No.	10	132880		13,28,800
c	DDC Panel for Pressurization Fans with 25% spare	Lot	1	642735		6,42,735
d	DDC Panel for Ventilation Fans with 25% spare	Lot	1	248160		2,48,160
e	DDC Panel for Fire Fighting & Water Supply System with 25% spare	Lot	1	224250		2,24,250
f	DDC Panel for Electrical System Breakers with 25% spare	Lot	1	396750		3,96,750
g	DDC Panel for WTP with 25% spare	Lot	1	281750		2,81,750
h	DDC Panel for STP with 25% spare	Lot	1	1461600		14,61,600
i	DDC for Hot water generators	Lot	1	88430		88,430
F)	Field Devices					
	Supply, installation, testing, commissioning of necessary Input sensor transmitters/transducers comprising the following:					
1.0	Immersion Temp Sensor for CHW line with brass thermowell. Measuring range: -30 to 110 Deg C, Accuracy: +/- 1.3 Deg C	Nos.	12	4200		50400
2.0	Outside Temp & Humidity Sensor with radiation shield. Measuring Range: Temp:-30 to 50 Deg C & RH 0-100%, Accuracy: +/- 1 Degc +/- 3%	Nos.	1	57500		57500
3.0	Water Differential pressure switch. Trigger Range:150-1000mbar with 1A (resistive) @ 240V AC contact rating	Nos.	44	25000		1100000
4.0	Water Pressure Sensor . Accuracy:+/-0.3% FSL	Nos.	1	29800		29800
5.0	Duct type temperature sensor Measuring range: -30 to 110 Deg C, Accuracy: +/- 1.3 Deg C	Nos.	61	2050		125050
6.0	Duct type temperature & RH sensor	Nos.	61	29400		1793400
7.0	Air Differential pressure Sensor	Nos.	10	32840		328400
8.0	CO2 sensor Duct mount type Measuring range: 0 to 2000 ppm	Nos.	61	45500		2775500
9.0	Differential pressure switch for filters & Blowwers	Nos.	217	5175		1122975
10.0	Level Switches (Hi/Low)	Nos.	21	97800		2053800
11.0	Explosion proof level transmitter	Nos.	4	6325		25300
c)	Conduiting , Wiring and cabling					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
1.0	Supply, installation, testing and commissioning of following cables:					
1.1	2 Core 1.0 Sqmm, unarmoured ATC conductor multistranded, shielded cable.	RM	29000	75		2175000
1.2	3 Core 1.5 Sqmm, unarmoured ATC conductor multistranded, cable for Powering DDC , Actuators.	RM	500	81		40500
1.3	Cat-6 networking cable	RM	1000	81		81000
1.4	Supplying and laying of following sizes of MS conduit on surface/recess including cutting/filling chases along with conduit accessories etc. complete as required.					
a)	25 mm dia	RM	10000	157		1570000
b)	20mm dia	RM	900	182		163800
	TOTAL SUB HEAD 24: BUILDING MANAGEMENT SYSTEM:AS MENTIONED ABOVE					23520300
	SUBHEAD 25 :OUT DOOR LIGHTING					
25.00	OUT DOOR LIGHTING					
25.01	Supply, erection, testing and commissioning of external swaged steel tubular pole with following specifications & items :					
i	9.0 Mtrs. high swaged steel tubular pole with arm length around 1.5 Metre, the construction of the pole shall be as per IS:2713 - 1980 410 SP-30 with base plate 450mmX450mmX6mm complete as per requirement with two coats of spray paints of approved shade.					
ii	90 watts LED street light fixture in die cast aluminum body with 90 watts LED lamp complete with control gear, cover etc. similar to Compton Greeves LSTN-90-CDL-A or approved equivalent including its wiring with 2X2.5 sq.mm. PVC insulated, FRLS copper conductor and 1.5 sqmm PVC insulated, FRLS copper earth wire from control box complete as required.					
iii	Suitable size 32 A DP MS Control box with 2 no. incoming and outgoing terminals and 2 nos. tap-out terminal with 6A DP MCB complete as required - 1 Set					
iv	Suitable number(s) 40mm dia Class-B GI Pipe(s) from above control box to upto 0.5 metre below ground level for power cable entry					
v	Providing foundation including excavation, shuttering, alingment of poles, casting etc. including lean concrete at the bottom as per CPWD/ BIS specifications.					

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
	vi The above installations shall be completed as CPWD specifications and as required					
	a. Steet Tubular Poles(9M) Single Arm as mention above	Set	40	30500		1220000
	b. Steet Tubular Poles (9M) same as above but for Double Arm as mention above	Set	20	54000		1080000
25.02	Supply, installation, testing and commissioning of external post top lantern with following accessories and complete as required :					
	i 4m high (3.3m above ground) 80mm dia GI pole as approved, adopting socket at top for fixture mentioned below, base plate 300 x 300 x 6mm and provision for mounting junction box etc. - 1 set.					
	ii 1 x 40 LED Post top lantern with 40W LED lamp (Crompton Greeves LPTO-40-CDL or equivalent) and its wiring with 2 x 2.5 sq.mm PVC insulated copper wire and 1.5 sqmm PVC insulated copper earth wire from control box .					
	iii Suitable size 20A DP MS Control box with 2 no. incoming and outgoings terminals and 2 nos. tap-out terminal with 1 nos. 5A HRC fuses complete 1 set.					
	iv Suitable number(s) 40mm dia Class-B GI Pipe(s) from above control box to upto 0.5 metre below ground level for power cable entry					
	v Providing 400x400x1000mm deep 1:3:6 ratio cement concrete including excavation shuttering alignment of poles casting etc. including 100mm thick lean concrete shall be provided at the bottom					
	Supply, installation, testing and commissioning of external post top lantern as mentioned above	Set	20	25600		512000
25.03	Supply, installation, testing and commissioning of Post top lantern 1 x 40 LED Post top lantern with 40W LED lamp ((Crompton Greeves LPTO-40-CDL or equivalent) and its wiring with 2 x 2.5 sq.mm PVC insulated copper wire and 1.5 sqmm PVC insulated copper earth wire from control box .	set	10	16500		165000
25.04	Supply, installation, testing and commissioning of bollard lamps 1X10watts LED Light Fixture (Crompton Greeves LBSL-1-10-CDL (LIARA) or equivalent) control box - 1 set.	Each	20	9500		190000

S.No.	Description.	Unit.	Qty.	Rate in Figures (in Rs.)	Rate in words (Rs.)	Amount in Figures (Rs.)
25.05	Road Lighting Panel					
	Supply, installation, testing and commissioning of following outdoor type with canopy, IP-54 protected M.V. cubicle type totally enclosed, free standing type, dust, damp and vermin proof, MV Panel, busbars, M.V. danger notice plate, interconnections with suitable capacity aluminium leads/solid aluminium strips/rods, connection of incoming and outgoing cables with thimbles, stove enamelled painted and having following incoming and outgoing switchgears complete as required.					
	INCOMER:					
	100 Amps,415 volts, TP+NL, 35 KA Moulded Case Circuit Breaker with thermal magnetic release having variable current settings .					
	R,Y&B phase indicating lamp (LED type) with 2A control SP MCB ,ON, OFF , TRIP for MCCB					
	Extended rotary operating mechanism with door interlocking with defeat feature and padlock facility. MCCB should have spreader links & phase barriers.					
	1 Set of timer switch & 100A TP contactor with neutral link (for street lights control) .					
	BUSBARS:					
	300 Amp TPN Aluminium busbars					
	OUTGOING:					
i	30 Nos. 16 Amp 415 volts, DP MCB					
	Feeder Pillar as mention above	Set	4	50000		200000
	TOTAL SUBHEAD 21: OUTDOOR LIGHTING					3367000
	GRAND TOTAL FOR ALL ELECTRICAL WORKS					481245091

**SUMMARY OF AMENDED BILL OF QUANTITIES OF ELECTRICAL WORKS FOR CONSTRUCTION OF SSB AT GOA
UNDER PMSSY**

S.No.	Description	Amount (In Rs.)	In Figure
1	SUB HEAD 1: HT SUB STATION	91938326.00	
2	SUBHEAD 2: MAIN LT PANEL.	37137000.00	
3	SUBHEAD 3 : DG SET & ACCESSORIES	58467188.00	
4	SUBHEAD 4: RISING MAINS	9361621.00	
5	SUB HEAD 5 :MV PANELS	11854950.00	
6	SUB HEAD 6: MCB DISTRIBUTION BOARDS.	3327624.00	
7	SUBHEAD 7 : UPS SYSTEM	8800000.00	
8	SUB HEAD 8: WIRING	46785300.00	
9	SUB HEAD 9: LIGHT FIXTURE AND FANS	41186916.00	
10	SUB HEAD 10: TELEPHONE SYSTEM	8974525.00	
11	SUBHEAD 11:CONDUITING FOR COMPUTER SYSTEM .	1921800.00	
12	SUB HEAD 12: CONDUITING FOR TV OUTLETS	895100.00	
13	SUBHEAD 13: ADDRESSABLE FIRE SYSTEM	15408485.00	
14	SUB HEAD 14 : CCTV SURVEILLANCE SYSTEM	13426243.00	
15	SUBHEAD 15: ACCESS CONTROL AND BOOM BARRIER SYSTEM	1954801.00	
16	SUB HEAD16 : NURSE CALL SYSTEM	10042229.00	
17	SUB HEAD 17 : LIFTS	50370000.00	
18	SUB HEAD 18: LT CABLES	21652472.00	
19	SUBHEAD 19: EARTHING	5209770.00	
20	SUBHEAD 20: LIGHTNING PROTECTION	657016.00	
21	SUB HEAD 21: SOLAR PHOTVOLTAIC POWER GENERATION	6000000.00	
22	SUB HEAD 22: LIGHT CONTROL SOLUTION	5895948.00	
23	SUB HEAD 23: PUBLIC ADDRESS SYSTEM	3090477.00	
24	SUB HEAD 24: BUILDING MANAGEMENT SYSTEM:	23520300.00	
25	SUBHEAD 25 :OUT DOOR LIGHTING	3367000.00	
	GRAND TOTAL FOR ALL ELECTRICAL WORKS	481245091	