



**THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD.
JANPATH, BHUBANESWAR-22.**

Tel: 0674 2541545; Fax: 0674 2541543; E-mail :jmelectricalophwc@gmail.com

Web: ophwc.nic.in

BID REFERENCE NO: - 12 / 2014-15 /ELECT/ OSPH&WC

**SUPPLY, INSTALLATION, COMMISSIONING & TESTING OF ELECTRICAL &
INTERIOR FURNISHING WORK ALONG WITH PRECISION AIR CONDITIONER ,
D.G. SET, LIGHTENING PROTECTION SYSTEM, FIRE ALARM SYSTEM, CCTV
SURVEILLANCE SYSTEM IN THE MODERN CONTROL ROOM FOR CCTV
PROJECT IN PURI AT TOWN POLICE STATION, KUMBHARPADA POLICE
STATION & JAGANNATH TEMPLE.**

SOLD TO : M/S _____

MONEY

RECEIPT NO : _____

DATE : _____

[SIGNATURE OF ISSUING OFFICER]

**THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD.
JANPATH, BHUBANESWAR-22.**

Tel: 0674 2541545; Fax: 0674 2541543; E-mail : jmelectricalophwc@gmail.com

Web: ophwc.nic.in

TENDER CALL NOTICE

BID REFERENCE NO: - 12 / 2014-15 /ELECT/ OSPH&WC

1. Sealed tender in the prescribed form with detailed Tender Call Notice for execution of Composite work of Modern Control Room for CCTV Surveillance along with dial 100 system at Puri at Town Police Station, Kumbharpada Police Station & Jagannath Temple invited in single cover system from the eligible contractor/ firm having previous experience in same nature of work, valid contractor license from the appropriate authority including supply of materials as per the specifications.

Sl.No	Name of the Project	Estimated Cost	EMD	Cost of tender paper including vat	Period of completion
1	2	3	4	5	6
1	Electrical & interior furnishing work along with supply and installation of Precision Air Conditioner , D.G. Set, Lightening Protection System, Fire Alarm System, CCTV Surveillance System in the Modern Control Room for CCTV Project in Puri at Town Police Station, Kumbharpada Police Station & Jagannath Temple.	Rs. 1,57,84,637.00	Rs.1,57,846.00	Rs. 10,400.00	Four Weeks

2. The tender document may be obtained on payment of the tender paper cost as mentioned in the Column – 5 of the above table [Non refundable] for each project between 10.00 A.M. to 05.00 P.M on each working day from the office of the undersigned at the Address given of O.S.P.H.&WC at Bhubaneswar on or before dt.23.02.2015.Tender document can also be obtained through speed post by sending a self addressed envelope of size 35 cm x 25 cm along

with a Demand Draft / Pay Order of the tender paper cost as mentioned in the Column – 5 of the above table and Rs. 200.00 (

Rupees two hundred only) extra for purchased by post[Non refundable] on any scheduled Bank, payable at Bhubaneswar, drawn in favour of the “**The**

Odisha State Police Housing &Welfare Corporation Ltd.”. However, such request must be received by the undersigned on or before the last date for issue of tender document. The O.S.P.H.&W.C. authorities shall not be responsible for postal or other delays. The tender document will also be available from the web site www.ophwc.nic.in and the same can be downloaded to be used for tender offer. However in case of downloaded tender documents an amount of the tender paper cost as mentioned in the Column – 5 of the above table [Non refundable] in shape of Demand Draft / Pay Order drawn on any scheduled Bank payable at Bhubaneswar in favour of the “**The Odisha State Police Housing & Welfare Corporation Ltd.”** along with the tender , failing which tender shall be liable for rejection.

3.The bidders are requested to submit the receipt of showing cost of tender paper along with the attested copies of valid license from the appropriate Authority, Income tax return copy, PAN card, TIN No, up to date VAT clearance certificate, ESI, EPF , Service Tax along with bid documents otherwise the bid shall be liable for rejection.

4. **EMD** - The tender shall be accompanied with EMD as mentioned above in shape of D.D. / Pay order drawn on any Nationalized Bank in favour of the “**The Odisha State Police Housing &Welfare Corporation Ltd.”**, failing which the tender shall be rejected.

5. The bidders should have experience in executing of similar nature of work relating to Police Control room / CCTV Surveillance Control room / CCTV Surveillance Control room in any large PSU (Public Sector Undertaking) in the last three financial Year.

6. **Time is the main essence for completion of this project. There will be no extension of time for completion of the project as per the schedule.**

7. Other details can be seen in the tender documents.

8. Bids submitted otherwise than in the manner prescribed in the tender document shall be rejected.

9. The bidding document should be super scribed **“Tender for execution of Composite work of Modern Control Room for CCTV Surveillance along with dial 100 system in Puri at Town Police Station, Kumbharpada Police Station & Jagannath Temple”** .
10. The tender document is available from :10 AM on Dt. 10.02.2015
11. Last date for issue of tender document is up to : 05.00 PM on Dt. 23.02.2015
12. Last date for receipt of tender document is up to : 12.30 PM on Dt. 25.02.2015
13. Date of opening of bid at : 03.30 PM on Dt. 25.02.2015
14. The authority reserves the right to reject any or all the bids without assigning any reason thereof.
15. An affidavit is to be furnish by the bidder at the time of submitting bid document that he is not blacklisted / defaulter contractor or Firm etc. The authority reserves the right to reject any or all the bids without assigning any reason thereof and can impose any conditions as deemed proper before finalisation of tender.

**Sd/-
Chief Engineer**



THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD.

JANPATH, BHUBANESWAR-22.

Tel: 0674 2541545; Fax: 0674 2541543; E-mail :jmelectricalophwc@gmail.com

web : ophwc.nic.in

General Terms and Conditions of the tender

1. The bidder should be a valid civil contractor having previous experience in same nature of work and registered with Odisha Value Added Tax Authority. The bidder should have coalition with a Electrical contractor having valid electrical license from ELBO to execute the portion of electrical works & an agreement in this connection should submit along with the tender. The bidder should submit authorization certificate from the respective Companies i.e D.G. Set, PAC, CCTV, Fire Alarm System & Lightening Protection System etc. along with the tender.
2. The tender not submitted in prescribed format or in prescribed manner, shall be rejected.
3. The price should be quoted inclusive of all i.e. all Taxes and duties , supply , transportation , erection, commissioning and testing etc.
4. The bidder not having VAT Registration certificate shall not be eligible for submitting the tender. The blacklisted bidder shall also not be eligible for participating the tender.
5. The Sales Tax / upto date VAT clearance certificate for the preceding financial year and copy of Income tax return copy, PAN card, TIN No, ESI Certificate , EPF Certificate , Service Tax Registration certificate, proof of experience and completion Certificate of executing the similar nature of work shall be submitted otherwise the tender shall be rejected.
6. All or any of the tender submitted can be rejected without assigning any reason thereof.
7. Advance payment /part payment will not be entertained before completion and handing over the project .
8. No claim can be made due to some unforeseen delay for release of payment.

9.. Warranty :-

The bidder shall stand for warranty against defective materials / manufacturing defects and workmanship for the work carried out by him for a period of **01 year** and extended warranty of **02 years** to be considered in the tender format from its commissioning /handing over & make good /repair/replace the faults during this period without any extra cost, failing which the same shall be got done at the risk and cost of the bidder. Further, **(i) Annual Maintenance Contract (AMC) for 4 th. & 5 th. Year has to be offered separately in percentage wise and indicate the percentage in amount. (ii) Annual Maintenance Contract (AMC) for 6 th. & 7 th. Year has to be offered separately in percentage wise and indicate the percentage in amount .**

10. Penalty shall be levied for delay in execution beyond the stipulated date of completion @ 0.5% per day subject to a maximum of 5% of the total agreement cost, if the delay is caused due to contractor default.

11. Payment Schedule :-

(A) 90 % of work value will be released after supply, installation, Commissioning, testing and handing over of the work and balance 10 % withheld amount as security money will be released as follows.

(B) (i) 3 % of the security money will be released after completion of 01 year warranty

period and extended warranty of 02 years.

(ii) 3 % of the security money will be released after completion of 5 th. Year AMC period.

(iii) Balance 4 % of the security money will be released after completion of 7 th. Year AMC period.

(iv) Annual Maintenance Contract (AMC) charges for 4 th. & 5 th. Year and 6 th. & 7 th. year will be released after successful completion of respective AMC period at the end of 5 th. and 7 th. Year.

12. All the transit risk shall be responsibility of the bidder.
13. The authorities are not bound to accept the lowest quoted rate.
14. Terms and Conditions of the Tender document can not be negotiated for variations.
15. The authority reserves the right to reject any or in whole or part without assigning any reason and can impose any other condition(s) as deemed proper before or in course of finalisation of the rate.
16. All the disputes shall be subject to Jurisdiction of Civil Courts situated at Bhubaneswar.

**Sd/-
Chief Engineer**

OFFICE OF THE CHAIRMAN-CUM- MANAGING DIRECTOR.
ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD., BHUBANESWAR.

BILL OF QUANTITY
BID REFERENCE NO: - 12 / 2014- 15 /ELECT/ OSPH&WC

Sl. No.	SCOPE OF WORK	UNIT	QTY	QUOTED RATE INCLUSIVE OF ALL IN(Rs.) FIGURE & WORD	QUOTED AMOUNT INCLUSIVE OF ALL IN(Rs.) FIGURE & WORD
A	Execution of Electrical & interior furnishing work for CCTV control Room at Town Police Station at Puri.				
A.a.	Electrical Works.				
A.a.1	Supply and fixing of Point wiring for Light with modular grid plate & cover plate mounted on same size of recess zinc chromate passivated flush metal box including required no. of 240volt 10 amp modular switch , blank plate if required with 2 x1.5 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor complete with all other materials as required and as per direction of Engineer -in- Charge .[Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]	Point	28.00		

<p>A.a.2</p>	<p>Supply and fixing of 10A modular switch & socket outlet complete with 1 no of 240 volt 6 amp 4 pin universal round/flat pin combined shuttered socket outlet & 1 no. of 240 volt 10 amp control switch mounted on modular grid plate, all housed in a 3 module with 2 x1.5 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor. as per direction of Engineer -in- Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]</p>	<p>Nos</p>	<p>42.00</p>		
<p>A.a.3</p>	<p>Supply and fixing of 20 A modular switch & socket outlet complete with 1 no of 240 volt 20 amp 4 pin universal round/flat pin combined shuttered socket outlet & 240 volt 20 amp control switch mounted on modular grid plate, all housed in a 4 module with 2 x6.0 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1.5 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor as per direction of Engineer -in- Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]</p>	<p>Nos</p>	<p>5.00</p>		

<p>A.a.4</p>	<p>Supply and fixing of 32A Industrial Socket complete with 1 no of 240 volt 6/16 amp 4 pin universal round/flat pin combined shuttered socket outlet & 240 volt 16 amp control switch mounted on modular grid plate, all housed in a 4 module with 2 x6.0 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1.5 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor as per direction of Engineer -in- Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]</p>	<p>Nos</p>	<p>2.00</p>		
<p>A.a.5</p>	<p>Circuit wiring for 10A Power Plug / Light point in existing required size polythene pipe /19 mm PVC pipe with single core 2.5 sq.mm (2Run) +1.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire of approved make complete with all other necessary materials & labour..as per direction of Engineer -in- Charge-[(a) Wires Finolex/RR /Havells (b) all other materials ISI marked of reputed company]</p>	<p>Mtr</p>	<p>450.00</p>		
<p>A.a.6</p>	<p>Circuit wiring for Lighting Switch Board & 20 A Power Plug point in existing required size polythene pipe /19 mm PVC pipe with single core 4 sq.mm (2Run) +2.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge.[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]</p>	<p>Mtr</p>	<p>88.00</p>		

A.a.7	Sub-main wiring for Lighting & Power distribution board & Pression AC in existing required size polythene pipe /19 mm PVC pipe with single core 10sq.mm (4Run) + 6 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge....[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	120.00		
A.a.8	Sub-main wiring for UPS & Power distribution board in existing required size polythene pipe /19 mm PVC pipe with single core 6sq.mm (4Run) + 2.5 sq.mm (2run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge..[Make-(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	85.00		
A.a.9	Sub-main wiring for Spilt AC in existing required size polythene pipe /19 mm PVC pipe with single core 6 sq.mm (2run) + 2.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge .[Make-(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	250.00		
A.a.10	Supply & fixing of 3 ph. 6 way, triple pole and Neutral, sheet steel MCB double door AC distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 18 nos of 6 to 32 Amps rating, 240Volts, 'C' curv. as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schnider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	Nos	2.00		

A.a.11	Supply & fixing of 1 ph.12 way, single pole and Neutral, sheet steel MCB double door UPS distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 10 nos of 6 to 32 Amps rating, 240Volts, 'C' curv. as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schnider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	Nos	1.00		
A.a.12	Earthing with copper earth plate electrode of 600 mm x 600 mm x 3 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and 2.5 mtr. long 50dia. G.I pipe for watering, including 25 x 3 mm size Cu. flat as per direction of Engineer -in- Charge(Make-TATA MEDIUM DUTY)	Nos	4.00		
A.a.13	Supply & laying of 50 sq.mm single core PVC insulated Al. flexible cable at 0.5 mm below ground level for earth electrode, including soldering / termination etc. with all required materials as required.as per direction of Engineer -in- Charge.[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Mtr	130.00		
A.a.14	Supply & Laying of Under floor cable management Cable Trey System with 16 gauge of following sizes & other necessary materialsas per direction of Engineer -in- Charge				
	i)200mm x 40 mm x 1.6mm	Mtr	15.00		
	ii)100mm x 40 mm x 1.6mm	Mtr	19.00		
	iii)50mm x 40 mm x 1.6mm	Mtr	21.50		
A.a.15	Supply & fixing of 3 ph. 8 way VTPN sheet steel MCCB double door Pression AC distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 4 nos of 40 Amps TPN MCB , 240Volts, 'C' curv . as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schnider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	No	1.00		

A.a.16	Main wiring for Pression AC DB in existing required size polythene pipe /19 mm PVC pipwith single core 16sq.mm (4Run) + 6 sq.mm (2run) PVC insulated un-sheathed FRLS Cu.conductor wire of approved make complete with all other necessary material as per direction of Engineer -in- Charge.[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	35.00		
A.a.17	Supply and fixing hard drawn PVC recessed and/or surface conduits including cost of providing saddles, elbow, bend etc for surface conduiting and/or cost of cutting and filling chases for recessed conduiting complete as per specifications as required as per direction of Engineer -in- Charge.and as below.				
i	25mm dia	Mtr	310.00		
ii	19mm dia	Mtr	125.00		
A.b.	Light Fitting & Fixture.				
A.b. 1	Providing and fixing of recessed mounted Step Light 1 watt LED as per direction of Engineer -in- Charge.. MAKE-CROMPTON/ PHILIPS	Nos	10.00		
A.b. 2	Providing and fixing of recessed mounted 12 watt LED downlighters as per direction of Engineer -in- Charge. . MAKE-CROMPTON/ PHILIPS	Nos	16.00		
A.b. 3	Providing and fixing of recessed mounted high efficiency (2 x 2) 4 x 14 Watt luminaire ensuring a uniform and consistent lighting for morden offices as per direction of Engineer -in- Charge.. MAKE – CROMPTON CODE – T5CQ11414 EB/MAKE-PHILIPS MODEL-AURA-CODE-PBS088	Nos	9.00		
A.b. 4	Providing and fixing of high efficiency LED Stripe luminaire ensuring a uniform and consistent lighting for morden offices as per direction of Engineer -in- Charge..	Rmt	40.00		
A.c.	A.C. FITTING & FIXTURE				

A.c.1	Supply and installation of 2.0 Tr. Split type Air Conditioner (4 Star rated) of reputed brand with supply and fixing of 6 KVA ,130-280 Volt voltage range wall/floor mounted stabiliser including all accessories,fastner angle copper piping up to 15ft & connections as per instruction of Electrical Engineer-in-charge MAKE – CARRIER SUPERIA, CODE-42KGN-024N (INDOOR), 51MSN-024NN (OUT DOOR)/MAKE – BLUE STAR, CODE-5HW24MA, MAKE of Wall /Floor mounted STABILIZER-JYOTI/ SHAKTI/ AUTOTAKE	NOS	2.00		
A.c.2	Providing & Fixing Super quality Copper Pipe with Installation as per direction of Engineer -in- Charge-	Rmt	155.00		
A.c.3	Providing & Fixing 2.5 Sqmm 4 Core Cable[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]as per direction of Engineer -in- Charge	Rmt	155.00		
A.c.4	Providing & Fixing 2.5 Sqmm 3 Core Cable[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]as per direction of Engineer -in- Charge	Rmt	135.00		
A.c.5	Providing & Fixing Super quality PVC Drain Pipes as per direction of Engineer -in- Charge	Rmt	155.00		
A.d.	Data & Voice Works.				
A.d.	Supply & fixing of information outlet box suitable for RJ 45 terminals including mounting box (G.I/PVC) & top cover , to be fixed in concealed manner in partition/wall by necessary bolts & nuts or as per direction of Engineer -in- Charge.. (MAKE - DIGI-LINK/ EQUIVALENT)	Nos	32.00		
A.d.	Supply & Fixing of Pop-up Box with 1 x universal power Socket,1 x RJ 45 Netwok, 1 x VGA, 1 x 3.5mm Audio, 1 x HDMI & 1 x USB complete with all other materials. as per direction of Engineer -in- Charge.. MAKE- HAFELLE/ HETTICH.	Nos	14.00		
A.e.	Sefty & Security Works				
	Rodent Control System				

A.e.1	Providing and installing Rodent control system for control room, consisting of Transducers 40 nos, VHFO Controller 2 nos and cable. Including all necessary hardware as per the solution providers advice as per direction of Engineer -in-Charge.. MAKE - MASAR / EQUIVALENT	Set	1.00		
A.f.	Paint & Finish Works				
A.f.1	Providing & applying Paint with two or more coats of Best quality Acrylic Emulsion Paint with Putty of approved brand, shade and manufacture including preparing of plastered surface, one coat of cement primer, three time filling and one coat of flat enamel paint to give an even shade on walls and ceiling, including providing necessary scaffolding, cleaning the surface with water to remove all coating dust etc. including cost of all materials, labour, T&P, brush putty, taxes etc. complete as per specification. complete in all respect as per direction of Engineer -in- Charge.. MAKE- ASIAN / BERGER/ NIROLAC	Sft	1864.00		
A.f.2	Providing , Painting fixing of The base of cavity floor with Epoxy paint and 13 mm thick Nitrile thermal insulation of Armaflex or equivalent make. The junctions between the insulation and fixtures are to be watertight and airtight with 50 mm wide nitrile tape, complete including cost of all materials, labour, T&P, taxes etc. as per direction of Engineer -in- Charge.. MAKE- ARMAFLEX/ EQUIVALENT	Sft	415.00		
A.g.	Loose Furniture Works for control room				
A.g.1	Providing & Supplying of Revolving Chair as per direction of Engineer -in-Charge.. Featherlite/ GODREJ Make Model- Advantage Mid Back.	No	14.00		
A.h.	Fixed Interior alongwith fire rated dry wall				

<p>A.h 1</p>	<p>Providing & fixing in position of High Impact/Heavy duty Non load bearing type double skin 2 hour Fire rated dry wall Partition of 98 mm thick comprising of a composite framework which includes a 48 mm stud of 0.55 mm thick and having two unequal flanges of 48 and 50 mm each placed at 610 mm center to center in 50 mm floor and ceiling channel with two equal flanges of 32 mm each fixed to floor and ceiling at 600 mm center, with the help of nylon sleeves and wood screws. Two layers of 12 mm thick Hilux/ Gyprock boards are then screw fixed to the studs and channels at 200 mm centres on both sides of the frame work, with 25 & 35 mm long self drilling & tapping screws having Phillips head with under head cutter, for first and second layer boards respectively. The board's joints are to be staggered to avoid through passage. Finally edges of the Boards are to be jointed and finished so as to have a flush look which includes filling and finishing with elasto prefab joint sealant specially formulated jointing compound and 48 mm wide self-adhesive fibre tape. including the cost of material, labour, tools and tackles, all consumable with best workmanship to complete as per the drawing, specification as per direction of Engineer -in- Charge.. . (Make-i. GI Frame-IGL/ Equivalent , ii- Board - Hilux/ Gyprock)</p>	<p>Sft</p>	<p>810.00</p>		
<p>A.h 2</p>	<p>Providing , fixing and making Sound Insulation (100 - 3150 Hz) – 43 dB by 50 mm thick (Density -64 Kg/m3) ceramic wool mat in to the cavity of the fire rated dry wall partition & Panneling as per direction of Engineer -in- Charge.. .Make- Twuga/ Equivalent</p>	<p>Sft</p>	<p>1299.00</p>		

<p>A.h 3</p>	<p>Providing & fixing Veneer wall panelling / Lining in different level with consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished with 8mm Calcium Silicate board with excellent Fire ,moisture registrant , termite proof & good sound insulation properties. Finished with 4mm thick Veneer of approved shade & design including melamine polish of approved shade on exposed wooden/ veneer surface complete in all respect as per design & drawing as per direction of Engineer -in-Charge.. . Make- Greenlam/ Century/ Merino</p>	<p>Sft</p>	<p>356.00</p>		
<p>A.h 4</p>	<p>Providing and fitting and fixing of Elevated gallery at desired shape, level and hight with adequate steps for easy access to elevated gallery.The under structure isto be madeup of load bearing 100 mm square Ms columns positioned in a grid manner 600 mm c/c with appropriate ms transversal sections wed between them to obten the necessary stability to the structure,The under structure to be treated for corrosion and coated with epoxy conductive paint. Base of gallery floor shall be of high impact/heavy duty 18 mm thick cement fibre boards screwed on to under structure @ 300 mm c/c. including the cost of material, labour, tools & tackles, all consumable with best workmanship to complete as per the drawing, specification & direction of Engg IN charge.</p>	<p>Sft</p>	<p>550.00</p>		
<p>A.h 5</p>	<p>Providing and fixing In-situ Curve workstation(2'-6" x 3'0" x 3'9") of desire shape with 19mm thick ply as specified with keyboard, as per the drawing including necessary writing white board, pin up board facility.all the exposed wooden surface to be finished with approved shade of laminates complete including cost of all materials, labour T & P Transportation, Taxes etc as per drawing & direction of the Engg. Incharge</p>	<p>No</p>	<p>14.00</p>		

A.h 6	Horizontal Desk fix Design Twin Arm LED Monitor Support Stand . (Pole hight 18" , The Stand will have tilt , Swivel & Remort arms . It can accomodation Monitor upto 17" to 24" complete with Management Intirgated cable System as per direction of Engineer -in- Charge.. .	No	14.00		
A.h 7	Providing and fixing in position to door frames (measured separately) Single Door in Data center shall be of 2 hour fire-rating, with secure bolted hinge provision for remote door release is made for the electric door locks. over all size of (1050 mm x 2400 mm) for Equipment movement. The doors will be kept closed and will not be used for regular access of data center facility. This shall also serve as Emergency exit door way with panic bar to be provided for egress from Data center area in case of fire exigency as per direction of Engineer -in- Charge.. . Make- Shakti Mate/ Hormon	Sft	40.00		
A.h 8	Providing and fixing in position to door frames (measured separately) exterior grade Flush Door (Venner Finish) shutters using BWP type, phenol formaldehyde synthetic resin adhesive, core of block board construction with frame of first class hard wood, BWP ply veneering on both sides including all incidental work, including providing and fixing 15mm thick wooden lipping to sides edge & bottom 40 mm thk. with grooves /rebates as approved all around the flush door shutters with veneer , cost of providing and fixing 3 nos each leaf with butt hinges with necessaries S.S. screws of adequate size, all fixing accessories etc. as per the design & specifications as per direction of Engineer -in- Charge.. . Make- Greenlam/ Century/ Merino	Sft	173.00		
A.h 9	Providing and fixing in position 12mm thick Toughened frameless glass Partition of shape & size as per design having supported by necessary fittings of approved make and with proper locking arrangement item to be completed in all respects as per drawings & instructions of manufacturer and as per direction of Engineer -in- Charge..	Sft	84.00		

A.h 10	Providing & fixing Acoustic wall panelling / Lining in different level with consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished with 65 % Pritch Work on MDF Board. as per direction of Engineer -in- Charge.. Make- Green/ Century	Sft	489.00		
A.h 11	Providing & fixing Wall panelling / Lining in different level with (Calcium silicate board) consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished as per direction of Engineer -in- Charge.. Make- Hilux/ Gyprock.	Sft	55.00		
A.h 12	Providing & Fixing Storage / Shoe Rack .as per direction of Engineer -in- Charge..	Sft	72.00		
A.i.	Rodant control alongwith False ceiling works				
A.i.1	Providing & fixing in position Mineral Fiber Board Modular type suspended grid system False ceiling grid shall be of specified make of Armstrong/Aerolite or equivalent. Using hot dipped galvanized steel section, exposed surface chemically cleaned capping pre-finished in baked polyester powder paint, Main tee of size 15 x 35 x 0.33 mm at every 1200 mm G/C max and rotary stitched cross tee of size 15 x 30 x 0.33mm at every 600 mm CIC 0.457 mm wall angle around the wall to form a grid of 600 mm x 600 mm and suspending the grid using 2 mm GI rod and 6 mm raw plug at every 1200 mm intervals at the main tee and laying the Ceiling tiles of size 595 mm x 595 mm x 15 mm over the formed grid having fire rating of 60 minutes as per BS 476/23 of 1987; Noise reduction Coefficient (NRG) of 0.50-0.60, to resist temperature and humidity conditions up to 40degree (104 deg. F) and humidity of 95% RH, weight of tile 3.5Kgs/SQ.M. The ceiling tile shall be of easy remove and install type for the access of utilities in the ceiling void. Non-combustible and dust-free plates shall be considered. The false ceiling shall serve as a plenum for lighting fixtures, fire detection and protection system. Compleat as per drawing & specification including cost of all materials, labour T & P Transportation etc. complete as per direction of engineer in charge. Make-	Sft	207.50		

	Armstrong / Aerolite				
A.i.2	<p>Providing and Fixing in position Suspended Calcium silicate board artificial false ceiling in any height of approved manufacture includes providing and fixing GI perimeter channels of 0.55mm thk having one flange of 20mm & another of 30mm & web of 27mm along the perimeter of the ceiling screw fixed to back wall / partition with the help of nylon sleeves & screws at 610mm centres. The suspended GI intermediate channels of size 45mm, 0.9mm thk with two flanges of 15mm each from the soffit at 1220mm centres with ceiling angle of width 25mm x 10mm x 0.55mm thk fixed to soffit with GI cleat & steel expansion fasteners. Ceiling section of 0.55mm thk having web of 51.5mm & flanges of 20mm each with lips of 10.5mm are then fixed to the intermediate channels with the help of connecting clips & in direction perpendicular to the intermediate channels with centres 6mm tapered edge calcium silicate board is then fixed to ceiling section with 25mm wall screws at 230mm centres and joints are fixed with tape and finished smooth & cutting in holes for light fitting ,Speakers ,AC Outlet, fire detector etc. complete as per Design, drawing & specification. including cost of all materials, labour T & P Transportation, Taxes etc. complete.as per direction of Engineer -in- Charge.. Make-Hilux/ Gyprock.</p>	Sft	565.00		
A.i.3	<p>Providing & fixing in position artificial Venner False Ceiling in any height including GI channels frame work along with ply backing finished with veneer of approved shade ,polished with 2 coats of melamine polish. Including Cost of cutting of holes for light fittings ,Speakers ,Smoke Detector Ac Outlet etc. & all materials, labour T & P Transportation, Taxes etc. complete as per drawing & specification and as per direction of Engineer -in- Charge.. Make- Greenlam/ Century/ Merino</p>	Sft	54.00		

A.i.4	<p>Providing , Making & fixing of Trap Door for A C made of 19mm thk board and finished as per false ceiling finish. The frame shall be fixed to existing RCC slab including all necessary hardware fittings complete as per drawing and details as per direction of Engineer -in-Charge.. .</p>	Sft	32.00		
A.j.	<p>Cable trunking alongwith Flooring & Cladding works</p>				
A.j.1	<p>Providing and fitting and fixing of Raised Access False flooring at 450mm high. The under structure is made up of load bearing galvanised steel columns with micrometric height adjustment arrangement positioned in correspondence with the corners of the modular grid panels and any appropriate transversal sections assembled between them to obtain the necessary modularity and capacity of flooring confirming to BIS 875-1987. Pedestal assembly shall be consisting of base assembly 100 x100x2 mm. with full bead weld to steel base plate with embossing and four numbers holes which shall be fixed to the floor with screws. The columns and transversal sections allows the positioning of gaskets to guarantee the stability of coupling between the structure and panels, limiting friction between various element . Panels should be made up of 18-gauge steel of 600mmx600mm size treated for corrosion and coated with epoxy conductive paint (minimum thickness 50 Micron). False flooring covering shall be antistatic high pressure laminate 2 mm. thick in approved shade and colour with PVC TRIM edge. (Perforated floor panels are to be provided on the designated floor for air delivery. The numbers and placement of perforated panels shall be decided after consulting the equipment vendor.) The perforated panels shall have provision for dampers. The interior of the panels shall be filled with non-combustible cementitious compound. No obstructions of pipes, conduits, detectors shall be permitted in space immediately under equipment lineups. The under floor space under lineups is required for equipment frame securing, cable management and power access. Steps are to be provided for transitioning to elevated floor area at</p>	Sft	207.50		

	entrance of data center.Special tools and tackles required for operation of False flooring shall be supplied in two sets. as per direction of Engineer -in- Charge.. Make- Unitech/ DJ				
A.j.2	Providing and laying with min 7 ply Engineered wood flooring of min panel size (1200mmX120mm) and thickness 8mm of approved make. complete with approved make complete as per the detail architectural drawings and specification.as per direction of Engineer -in- Charge.. Make- Armstrong / Green Ply / Wonderfloor	Sft	550.00		
A.k.	Miselenious & Allied Works				
A.k.1	Providing and Laying Half Brick Work with bricks of class designation 75 as directed in Half brick thick walls in Superstructure laid in cement mortar 1:4 (1 cement : 4 coarse sand) joints finished flush / raked to 12mm depth as work proceeds as directed, cured etc. complete as per specification and drawing or as per direction of Engineer -in- Charge..	Cum	1.25		
A.k.2	12 to 15mm thick Plaster to walls columns etc. in cement mortar 1:6 (1 cement: 6 coarse sand) applied, perfect line & levels, finished smooth and cured complete to internal walls, including chicken wire mesh on all R.C.C & Brick joints.as per direction of Engineer -in- Charge..	Sft	120.00		
A.l.	Dismantalling Work as per direction of Engineer -in- Charge..	LS	LS		
A.m.	AMC for Item Sl.No A.a. to A.k.2.				
	PERTICULARS			PERCENTA GE ON QUOTED PRICE	AMOUNT OF PERCENTAGE IN RS.
A.1.1	AMC Charges for 4 th. & 5 th. year				
A.1.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF A				
B.	<i>PRECISION A.C. FOR MODERN CONTROL ROOM TOWN POLICE STATION AT PURI MAKE : BLUE BOX/ EMERSON</i>				

<p>B.1</p>	<p>SUPPLY & INSTALLATION OF HIGH PERFORMANCE 6.5 TR. PRECISION AC WITH ECO FRIENDLY R 410A SCROLL COMPRESSOR ALONG WITH DOUBLE SKIN CONSTRUCTION FOR ALL SIDES WITH 20MM CLASS "O" FIRE RATED GLASS WOOL INSULATION , HYDROPHILIC COATED ECAPORATOR SLANT COOLING COIL , LIQUIDE RECEIVER , G4 / MERV8 FILTER , CLOGGED FILTER ALARM , INDIVIDUAL UNIT MICROPROCESSOR , WATER LEAK DETECTOR SENSOR , INBUILT POWER PANEL & STARTER FOR ALL DRIVES , COMPLETE WITH ALL OTHER NECESSARY MATERIALAs per direction of Engineer -in- Charge.. .</p>	<p>UNIT</p>	<p>2</p>		
	<p>Specification for Precision AC Scope The scope of this section comprises of supply; installation, testing and commissioning of self contained direct expansion type Precision air conditioning units suitable for operation on R410a refrigerant & should have advanced microprocessor and electronically communicated motors conforming to these specifications and in accordance with the Schedule of Quantities. General Modular construction Precision air conditioning unit suitable for operation on R-410a refrigerant with bottom discharge arrangement consisting of inlet filter, blow through direct drive Electronically communicated Motors and Backward curved Plug fans, fan motor assembly to deliver desired air quantity, Direct Expansion Cooling Coil, Multistage Heater banks Variable capacity Humidifier, condensate drain pan of stainless steel construction, Microprocessor panel, programmable control complete with LCD display. The unit shall be suitable for operation on 415 V, 50 Hz, AC supply.</p>				

Unit Base & Casing

Base panel shall be constructed out of sandwich panels of galvanized steel and painted with epoxy powder. All four side panels (including front door) shall be double skinned sandwiched panels. The panels shall be insulated on the inside with minimum 32 Kg/ cum glass wool, for fire insulation class A1. Unit shall be complete with space for refrigeration equipment, fans, cooling coils, liquid receiver and multistage strip heaters and modulating Humidifiers. Unit shall be provided with welded tubular steel floor stand with adjustable legs and requisite vibration isolation pads.

Fan

The units should be equipped with direct driven backward curved EC radial fans with electronically commutated brushless motors; the technology employed by these motors allows straightforward control of fan speed by means of the electronic controller in order to obtain step less adjustment of air flow rate and static pressure to ensure correct distribution of the treated air. The motor's high efficiency should make for less energy absorption, especially at partial loads and during starting (lowering of peak current), which means a reduction in power consumption of approximately 30% compared to AC motor. The motor shall have minimum IP54 Protection.

Filters

The filter chamber shall be an integral part of the system and withdraw able from the front of the unit. Filtration shall be provided by deep V form G4 performance dry disposable media to AS1324.

Evaporator Coil

Precision packaged unit shall comprise of cooling coil of copper tubes expanded into aluminium fins with corrugated profile and hydrophilic treatment. Face and surface areas shall be such as to assure rated capacity and the air velocity across the coil and Filter shall not exceed 2.5 m/s. The cooling

coil shall be minimum of 3/4 rows deep and the fin spacing shall not exceed 1.8 mm. Coil selection to be suitable for SHF > 0.95 and provided with hydrophilic coating to minimize / eliminate water carry over into the airflow stream. Drain pan shall be made of stainless steel.

Compressorised systems**Scroll Compressor**

The compressor shall be of the high efficiency scroll design operating with R410A refrigerant and 400V/3~/50 Hz supply. Compressors, the humidifier shall be isolated from the air flow in the version with downward flow, and in the air flow in versions with upward output. The compressor shall be charged with mineral oil and Designed for operation on environment friendly refrigerant R410a. Each compressor shall have internal motor protection and be mounted on vibration isolators. Crank Case heater should be integrated with the compressor.

Refrigeration Circuit

The refrigeration system shall be of the Single/Multiple circuit direct expansion type and incorporate hermetic scroll compressors, complete with crankcase heaters. The system shall include a manual reset high pressure control; auto reset low pressure switch, safety valve, electronic expansion valve, high sensitivity refrigerant sight glass, liquid receiver, filter drier, solenoid valve for interception of liquid refrigerant, and charging /access ports in each circuit. Each refrigeration circuit shall include rigidly mounted Isolation valves in the discharge and liquid lines to aid servicing and installation.

Expansion device: Electronic Expansion Valve (EEV)

The unit should have Electronic Expansion Valve, which offers the following advantages:

- Fast, high precision adjustment of refrigerant flow;
- Fast arrival of the unit at steady-state conditions;
- Superheating value remains constant in variable thermal load conditions;
- Efficient operating conditions of the compressor, especially in the presence of low room temperatures;
- Wide working range with consequent extension of the unit's operating limits. These properties result in enhanced performance of the unit and make it possible to obtain very significant energy savings.

Air Cooled Condenser

Condenser shall be air-cooled type, suitable for outdoor installation and shall be suitable for operating at high ambient of 44 deg C db and at low ambient of upto 5 deg C db temperatures. Condenser shall be in copper tube & aluminum fins construction. Condenser coil shall be of maximum 4 rows deep and the fin spacing shall not exceed 2mm.

The condenser fan/s shall be of propeller type with max 1000 RPM variable voltage electric motor complete with IP-54 protection. Motor shall be speed controlled to ensure a stable operation for varying ambient; by a factory fitted direct acting head pressure activated stepless variable speed drive. The condenser shall be complete with provisions for refrigerant piping connections, shut off valves and any other standard accessories necessary with the equipment supplied.

Electric Strip heaters

Each packaged unit shall be provided with multistage electric heaters with heating elements constructed from a non-oxidizable material. Electric strip heaters shall be of the low temperature totally enclosed strip type fitted with radiation fins and suitable for operating at black heat. If overheating occurs, a safety thermostat should cut off the voltage supply to the heaters and trigger an alarm.

Humidifier

Boiling water in a polypropylene steam generator shall provide humidification. The humidifier shall be capable of providing continuous auto modulation in steam generation from 30-100% as per the steam requirement per hour. The Humidifier shall be fully serviceable with replaceable electrodes. Waste water shall be flushed from the humidifier by initiation of water supply valve via U-trap. The microprocessor should be able to display the current drawn and actual steam output in the microprocessor.

De-Humidification

De-humidification cycle shall operate by reducing the speed of EC fan to reduce ADP of coil. Hence, by reduction of fan speed there shall be additional power saving.

Water Sensor :

The system shall be provided with relevant water detection kit which shall have sensors with wire of minimum 2 mtrs. and each of the sensor must be capable to detect individually any water below the false floor near the unit, the sensor must be connected to the unit microprocessor thus enabling the controller to give an alarm incase of wet floor.

	<p>Logic Circuitry : A microprocessor shall continuously monitor operation of each Server room air-conditioning unit continuously digitally display room temperature and room relative humidity, alarm on system malfunction and simultaneously display problem. When more than one malfunction occurs, flash fault in sequence with room temperature, remember alarm even when malfunction cleared, and continue to flash fault until reset.</p> <p>Malfunctions : Power Loss, Loss of Airflow, High Room Temperature, Low Room Temperature, High Humidity, Low Humidity, Supply Fan Overload, and Water Under Floor / Fire alarm. The standby unit should immediately come in action in the event of any alarm/failure of the working unit without waiting for the temperature to increase to the high temperature limit thereby controlling the temperature of the data Centre.</p> <p>The unit should also be capable of starting the standby unit incase the temperature is not able to achieve with the working units.</p> <p>Automatic lead unit sequencing to extend equipment life and automatic rotation of standby unit should be part of the microprocessor itself. Microprocessor must be suitable to control multiple units if required with hard wiring which can be done at a later date.</p> <p>In case of power failure the precision packaged unit shall start automatically without any body's intervention. Controllers shall be Microprocessor based with capability to generate alarm and networking of all units to rotate (working + standby) units, equalized run time capability (for 2 or 3 packaged units), programmable timer, with display of all parameters. Computer Generated Selection sheet shall be attached along with the offer. The same needs to be demonstrated incase required at the time of finalization.</p>			
B.2	AMC for Item Sl.No B.1			

	PERTICULARS		PERCENTA GE ON QUOTED PRICE	AMOUNT OF PERCENTAGE IN RS.
B.2.1	AMC Charges for 4 th. & 5 th. year			
B.2.2	AMC Charges for 6 th. & 7 th. year			
	SUB TOTAL OF B			
C	FIRE ALARAM SYSTEM AT MODERN CONTROL ROOM AT PURI			
	MAKE : L & T (SHRACK) / GST			
C.1	Supply of 1 Loop stand alone non redundant Panel with Displayas per direction of Engineer -in- Charge-	SET	1	
C.2	Supply of Common Detector Base for Addressable & Conventional Detectors as per direction of Engineer -in- Charge-	SET	41	
C.3	Supply of Multi Criteria Detectoras per direction of Engineer -in- Charge-	SET	41	
C.4	Supply of Addressable Manual Call Pointas per direction of Engineer -in- Charge-	SET	3	
C.5	Supply of Addressable Loop Sounderas per direction of Engineer -in- Charge-	SET	3	
C.6	Supply of Cease Fire ABC Class 2 KG Powder based Portable Fire Extinguisheras per direction of Engineer -in- Charge-	SET	6	
C.7	Supply of 12v 7 Ah Batteriesas per direction of Engineer -in- Charge-	SET	2	
C.8	Supply and laying of 1.5 sqmm 2 core Copper cable in rigid PVC pipe per running metre of cable used.as per direction of Engineer -in- Charge-	MTR	200	
C.9	Dismantalling Workas per direction of Engineer -in- Charge-	LS	LS	
C.10	Supply of 4" x 4" GI Surface mounted Boxas per direction of Engineer -in- Charge-	SET	15	
C.11	Supply of Remote Indicatoras per direction of Engineer -in- Charge-	SET	15	
C.12	System installation, testing and commissioning charges as per direction of Engineer -in- Charge..	JOB	1	
C.13	AMC for Item Sl.No C.1 to C.12			

	PERTICULARS			PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENT AGE IN RS.
C.13.1	AMC Charges for 4 th. & 5 th. year				
C.13.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF C				
D	CCTV SURVEILLANCE SYSTEM MODERN CONTROL ROOM AT TOWN P.S. PURI				
	MAKE : L & T (PERITO) / VANTAGE				
D.1	Supply of Network Video Recorder for upto 4 IP camera inputs, HDMI output, VGA Output, 1 ch Audio Input & Output, 1 Sata HDD support upto 4TB, 20 Mbps incoming bandwidth support, 2 x USB ports, Gigabit 10/100/1000 Ethernet interface, Third party IP cameras on ONVIF supported, Supports upto 5MP 1080p Max resolution, Supports HDD quota mode - different capacity can be assigned to different channels, Supports upto 4 channel Synchronous playback. as per direction of Engineer -in- Charge..	SET	1		
D.2	Supply of Night Vision FULL HD Vandal-Proof Dome IP camera with 1/3" Sony Progressive Scan Exmor Sensor, H.264 compression based with dual stream support, 3 Megapixel high resolution (2048 x 1536 pixels), FULL HD recording, with real time 25/30 FPS viewing and recording at FULL HD 1920 x 1080 resolution, motion detection, NVR support, POE support , with 3 megapixel fixed IR lens (2.8mm, 4mm and 6mm optional), DWDR, 3D DNR, BLC functions, inbuilt IR LEDs for 15 mtrs IR range, mechanical IR cut filter for True Day and Night, built in Mic, onboard SD/SDHC/SDXC card slot (upto 64 GB support), and outdoor weather proof housing IP66. Audio I/O (optional), Alarm I/O (optional). ONVIF, PSIA and CGI support. CE, FCC and RoHS certified. as per direction of Engineer -in- Charge..	SET	4		
D.3	Supply of 4 Port POE Ethernet Switch as per direction of Engineer -in- Charge..	SET	1		

D.4	Supply of 2 TB AV Hard Disk make WD/Seagate as per direction of Engineer -in- Charge..	SET	1		
D.5	Supply of Samsung LED Monitor 40" as per direction of Engineer -in- Charge..	SET	1		
D.6	Supply and laying of Cat 6 Cable in PVC Pipe / Casing capping per running metre of cable used. as per direction of Engineer -in- Charge..	MTR	200		
D.7	Supply of 1 KVA Line Interactive UPS with Double Battery as per direction of Engineer -in- Charge..	SET	1		
D.8	System installation, testing and commissioning charges as per direction of Engineer -in- Charge..	JOB	1		
D.9	AMC for Item Sl.No D.1 to D.8				
	PERTICULARS			PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENT AGE IN RS.
D.9.1	AMC Charges for 4 th. & 5 th. year				
D.9.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF D				
E	LIGHTENING PROTECTION SYSTEM FOR BUILDING OF MODERN CONTROL ROOM AT TOWN POLICE STATION, PURI MAKE : ABB INDIA LTD. / UNIVERSAL				
E.1	Supply, delivery, installation, testing and commissioning of Early Streamer Emission (ESE) Lightning protection Airterminal complying with NFC - 17-102 standards OPR-30 or equivalent complete as required and as per Electrical Engineer-in-Charge.	No	1		
E.2	Supply, delivery, installation, testing and commissioning of support structure for Lightning Protection Air Terminal fabricated out of GI pipe along with base plate, Guy wire clamping system, termination arrangement for the down conductor complete as required and as per Electrical Engineer-in-Charge.	No	1		

E.3	Supply, delivery, installation, testing and commissioning of Lightning strike counter working electro mechanically without any power supply complete as required and as per Electrical Engineer-in-Charge .	No	1		
E.4	Supply of materials and laying on ceiling/ column/ wall or buried under ground including saddling & making connection at both ends and testing with 25 x 6 mm copper flats for roof conductor / down conductor / earth termination and earth interconnection, making good the damages caused as required complete as per Electrical Engineer-in-Charge .	Mtr.	45		
E.5	Supply, delivery, installation, testing and commissioning of maintenance free earthing using enhancing chemical compound with copper bonded steel rod with minimum 3.0mts long and suitable termination clamps complete as required and as per Electrical Engineer-in-Charge .	No	2		
E.6	AMC for Item Sl.No E.1 to E.5				
				PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENT AGE IN RS.
E.6.1	AMC Charges for 4 th. & 5 th. year				
E.6.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF E				
F	D.G.SET FOR MODERN CONTROL ROOM TOWN POLICE STATION AT PURI MAKE : KIRLOSKAR OIL ENGINES LTD. / MAHINDRA & MAHINDRA / JAKSON LIMITED				

F.1	DESIGN, SUPPLY, ERECTION, COMMISSIONING AND TESTING OF 82.5-KVA 3 PHASE SILENT TYPE DG SETS , 415V, 50 HZ, 1500 RPM ,0.8 P.F. WITH CPCB-II COMPLINED WITH MICROPROCESSOR BASED CONTROLLER ALONG WITH AMF CONTROL PANEL , CABLING WITH 95 SQ.MM 3.5 CORE AL. PVC ARMoured CABLE WITH SOCKETING AND CONNECTION , 4 NOS OF EARTHING WITH GI FLAT ,MS PIPE EXHAUST SYSTEM FOR DG SET AS PER SPECIFICATION INCLUDING 35 LTRS. OF FUEL as per direction of Engineer -in- Charge.. .	SET	1		
F.2	CEMENT CONCRETE FOUNDATION SPECIFICATION as per direction of Engineer -in- Charge I. HEIGHT- 1.5 FT. II. WIDTH- 5 FT. III. LENGTH -11 FT.	JOB	1		
F.3	CONSTRUCTION OF SHED FOR DG SET SPECIFICATION OF SHED as per direction of Engineer -in- Charge a. HEIGHT- 12 FT. b. WIDTH- 7 FT. c. LENGTH -13 FT. d. ROOF- MADE WITH 40 MM THICK BOTH SIDE SLOOPY FIBER SHEET . e. FRAME STRUCTURE- MADE WITH 1 ½” HEAVY DUTY SQUARE M.S. PIPE.	JOB	1		
F.4	AMC for Item Sl.No F.1				
	PERTICULARS			PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENT AGE IN RS.
F.4.1	AMC Charges for 4 th. & 5 th. year				
F.4.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF F				
G	NAME OF THE WORK :- Execution of Electrical & interior furnishing work				

	for CCTV control Room at Traffic Control Room at Kumbharpada Police Station , Puri for Nabakalebar Festival.			
G.a.	Electrical Works.			
G.a.1	Supply and fixing of Point wiring for Light with modular grid plate & cover plate mounted on same size of recess zinc chromate passivated flush metal box including required no. of 240volt 10 amp modular switch , blank plate if required with 2 x1.5 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor complete with all other materials as required and as per direction of Engineer -in- Charge .[Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]	Point	24.00	
G.a.2	Supply and fixing of 10A modular switch & socket outlet complete with 1 no of 240 volt 6 amp 4 pin universal round/flat pin combined shuttered socket outlet & 1 no. of 240 volt 10 amp control switch mounted on modular grid plate, all housed in a 3 module with 2 x1.5 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor. as per direction of Engineer -in- Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]	Nos	30.00	
G.a.3	Supply and fixing of 20 A modular switch & socket outlet complete with 1 no of 240 volt 20 amp 4 pin universal round/flat pin combined shuttered socket outlet & 240 volt 20 amp control switch mounted on	Nos	5.00	

	<p>modular grid plate, all housed in a 4 module with 2 x6.0 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1.5 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor as per direction of Engineer -in-Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]</p>			
G.a.4	<p>Circuit wiring for 10A Power Plug / Light point in existing required size polythene pipe /19 mm PVC pipe with single core 2.5 sq.mm (2Run) +1.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire of approved make complete with all other necessary materials & labour as per direction of Engineer -in- Charge..[(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]</p>	Mtr	420.00	
G.a.5	<p>Circuit wiring for Lighting Switch Board & 20 A Power Plug point in existing required size polythene pipe /19 mm PVC pipe with single core 4 sq.mm (2Run) +2.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge.[Make-(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]</p>	Mtr	85.00	
G.a.6	<p>Sub-main wiring for UPS & Power distribution board in existing required size polythene pipe /19 mm PVC pipe with single core 6sq.mm (4Run) + 2.5 sq.mm (2run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge..[Make-(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]</p>	Mtr	85.00	
G.a.7	<p>Sub-main wiring for Spilt AC in existing required size polythene pipe /19 mm PVC pipe with single core 6 sq.mm (2run) + 2.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of</p>	Mtr	240.00	

	Engineer -in- Charge .[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]			
G.a.8	Supply & fixing of 3 ph. 6 way, triple pole and Neutral, sheet steel MCB double door AC distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 18 nos of 6 to 32 Amps rating, 240Volts, 'C' curv. as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schnider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	Nos	2.00	
G.a.9	Supply & fixing of 1 ph.12 way, single pole and Neutral, sheet steel MCB double door UPS distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 10 nos of 6 to 32 Amps rating, 240Volts, 'C' curv. as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schnider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	Nos	1.00	
G.a.10	Earthing with copper earth plate electrode of 600 mm x 600 mm x 3 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and 2.5 mtr. long 50dia. G.I pipe for watering, including 25 x 3 mm size Cu. flat as per direction of Engineer -in- Charge(Make-TATA MEDIUM DUTY)	Nos	4.00	
G.a.11	Supply & laying of 50 sq.mm single core PVC insulated Al. flexible cable at 0.5 mm below ground level for earth electrode, including soldering / termination etc. with all required materials as required.as per direction of Engineer -in- Charge.[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Mtr	120.00	
G.a.12	Supply & Laying of Under floor cable management Cable Trey System with 16 gauge of following sizes & other necessary materialsas per direction of Engineer -in- Charge..			
	i)200mm x 40 mm x 1.6mm	Mtr	15.00	

	ii)100mm x 40 mm x 1.6mm	Mtr	18.50		
	iii)50mm x 40 mm x 1.6mm	Mtr	21.00		
G.a.13	Supply and fixing hard drawn PVC recessed and/or surface conduits including cost of providing saddles, elbow, bend etc for surface conduiting and/or cost of cutting and filling chases for recessed conduiting complete as per specifications as required as per direction of Engineer - in- Charge.and as below.				
i	25mm dia	Mtr	150.00		
ii	19mm dia	Mtr	90.00		
G.b.	Light Fitting & Fixture.				
G.b.1	Providing and fixing of recessed mounted Step Light 1 watt LEDas per direction of Engineer -in- Charge. . MAKE-CROMPTON/ PHILIPS	Nos	4.00		
G.b.2	Providing and fixing of recessed mounted 12 watt LED downlighters as per direction of Engineer -in- Charge.. MAKE-CROMPTON/ PHILIPS	Nos	16.00		
G.b.3	Providing and fixing of recessed mounted high efficiency (2 x 2) 4 x 14 Watt luminaire ensuring a uniform and consistent lighting for morden offices as per direction of Engineer -in- Charge.. MAKE – CROMPTON CODE – T5CQ11414 EB/MAKE-PHILIPS MODEL-AURA-CODE-PBS088	Nos	9.00		
G.b.4	Providing and fixing of high efficiency LED Stripe luminaire ensuring a uniform and consistent lighting for morden offices as per direction of Engineer -in- Charge..	Rmt	40.00		
G.c.	A.C. FITTING & FIXTURE				
G.c.1	Supply and installation of 2.0 Tr. Split type Air Conditioner (4 Star rated) of reputed brand with supply and fixing of 6 KVA ,130-280 Volt voltage range wall/floor mounted stabiliser including all accessories,fastner angle copper piping up to 15ft & connections as per instruction of Electrical Engineer-in-charge MAKE – CARRIER SUPERIA, CODE-42KGN-024N (INDOOR), 51MSN-024NN (OUT DOOR)/MAKE – BLUE STAR, CODE-5HW24MA, MAKE of Wall /Floor mounted STABILIZER-JYOTI/	NOS	2.00		

	SHAKTI/ AUTOTAKE			
G.c.2	Providing & Fixing Super quality Copper Pipe with Installation as per direction of Engineer -in- Charge	Rmt	155.00	
G.c.3	Providing & Fixing 2.5 Sqmm 4 Core Cable as per direction of Engineer -in- Charge[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Rmt	155.00	
G.c.4	Providing & Fixing 2.5 Sqmm 3 Core Cable as per direction of Engineer -in- Charge[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Rmt	135.00	
G.c.5	Providing & Fixing Super quality PVC Drain Pipe as per direction of Engineer - in- Charge	Rmt	155.00	
G.d.	Data & Voice Works.			
G.d.1	Supply & fixing of information outlet box suitable for RJ 45 terminals including mounting box (G.I/PVC) & top cover , to be fixed in concealed manner in partition/wall by necessary bolts & nuts or as per direction of Engineer -in- Charge.. (MAKE - DIGI-LINK/ equivalent)	Nos	22.00	
G.d.2	Supply & Fixing of Pop-up Box with 1 x universal power Socket, 1 x RJ 45 Network, 1 x VGA, 1 x 3.5mm Audio, 1 x HDMI & 1 x USB complete with all other materials.as per direction of Engineer -in- Charge..MAKE- HAFELLE/ HETTICH.	Nos	11.00	
G.e	Sefty & Security Works			
G.e.1	Rodent Control System			
	Providing and installing Rodent control system for control room, consisting of Transducers 40 nos, VHFO Controller 2 nos and cable. Including all necessary hardware as per as per direction of Engineer -in- Charge.. MAKE - MASAR / EQUIVALENT	Set	1.00	
G.f.	Paint & Finish Works			
G.f.1	Providing & applying Paint with two or more coats of Best quality Acrylic Emulsion Paint with Putty of approved brand, shade and manufacture including preparing of plastered surface, one coat of	Sft	906.00	

	cement primer, three time filling and one coat of flat enamel paint to give an even shade on walls and ceiling, including providing necessary scaffolding, cleaning the surface with water to remove all coating dust etc. including cost of all materials, labour, T&P, brush putty, taxes etc. complete as per specification. complete in all respect as per direction of Engineer -in- Charge... MAKE- ASIAN / BERGER/ NIROLAC			
G.g.	Loose Furniture Works for control room			
G.g.1	Providing & Supplying of Revolving Chair as per direction of Engineer -in- Charge..Featherlite / Godrej Make Model- Advantage Mid Back.	No	11.00	
G.h	Fixed Interior alongwith fire rated dry wall			
G.h.1	Providing , fixing and making Sound Insulation (100 - 3150 Hz) – 43 dB by 50 mm thick (Density -64 Kg/m3) ceramic wool mat in to the cavity of the fire rated dry wall partition & Panneling as per direction of Engineer -in- Charge...Make- Twuga/ Equivalent	Sft	484.00	
G.h.2	Providing & fixing Veneer wall panelling / Lining in different level with consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished with 8mm Calcium Silicate board with excellent Fire ,moisture registrant , termite proof & good sound insulation properties. Finished with 4mm thick Veneer of approved shade & design including melamine polish of approved shade on exposed wooden/ veneer surface complete in all respect as per design & drawing as per direction of Engineer -in- Charge... Make- Greenlam/ Century/ Merino	Sft	352.00	
G.h.3	Providing and fitting and fixing of Elevated gallery at desired shape, level and hight with adequate steps for easy access to elevated gallery.The under structure isto be madeup of load bearing 100 mm square Ms columns positioned in a grid manner 600 mm c/c with appropriate ms transversal sections wed between them to obten the necessary	Sft	408.00	

	stability to the structure,The under structure to be treated for corrosion and coated with epoxy conductive paint. Base of gallery floor shall be of high impact/heavy duty 18 mm thick cement fibre boards screwed on to under structure @ 300 mm c/c. including the cost of material, labour, tools & tackles, all consumable with best workmanship to complete as per the drawing, specification as per direction of Engineer -in- Charge.. .			
G.h.4	Providing and fixing In-situ Curve workstation(2'-6" x 3'0" x 3'9") of desire shape with 19mm thick ply as specified with keyboard, as per the drawing including necessary writing white board, pin up board facility.all the exposed wooden surface to be finished with approved shade of laminates complete including cost of all materials, labour T & P Transportation, Taxes etc as per drawing as per direction of Engineer -in- Charge..	No	11.00	
G.h.5	Horizontal Desk fix Design Twin Arm LED Monitor Support Stand . (Pole high 18" , The Stand will have tilt , Swivel & Remort arms . It can accomodation Monitor upto 17" to 24" complete with Management Intirgated cable System as per direction of Engineer - in- Charge.. .	No	11.00	
G.h.6	Providing and fixing in position to door frames (measured separately) exterior grade Flush Door (Venner Finish) shutters using BWP type, phenol formaldehyde synthetic resin adhesive, core of block board construction with frame of first class hard wood, BWP ply veneering on both sides including all incidental work, including providing and fixing 15mm thick wooden lipping to sides edge & bottom 40 mm thk. with grooves /rebates as approved all around the flush door shutters with veneer , cost of providing and fixing 3 nos each leaf with butt hinges with necessaries S.S. screws of adequate size, all fixing accessories etc. as per the design as per direction of Engineer -in- Charge.. Make- Greenlam/ Century/ Merino	Sft	28.00	

G.h.7	Providing and fixing in position 12mm thick Toughened frameless glass Partition of shape & size as per design having supported by necessary fittings of approved make and with proper locking arrangement item to be completed in all respects as per drawings as per direction of Engineer -in- Charge...	Sft	66.00		
G.h.8	Providing & fixing Acoustic wall panelling / Lining in different level with consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished with 65 % Pritch Work on MDF Board as per direction of Engineer -in- Charge...Make- Green/ Century	Sft	484.00		
G.h.9	Providing & fixing Wall panelling / Lining in different level with (Calcium silicate board) consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished as per direction of Engineer -in- Charge...Make- Hilux/ Gyprock.	Sft	50.00		
G.h.10	Providing & Fixing Storage / Shoe Rack as per direction of Engineer -in- Charge .	Sft	62.00		
G.i.	Rodant control alongwith False ceiling works				
G.i.1	Providing and Fixing in position Suspended Calcium silicate board artificial false ceiling in any height of approved manufacture includes providing and fixing GI perimeter channels of 0.55mm thk having one flange of 20mm & another of 30mm & web of 27mm along the perimeter of the ceiling screw fixed to back wall / partition with the help of nylon sleeves & screws at 610mm centres. The suspended GI intermediate channels of size 45mm, 0.9mm thk with two flanges of 15mm each from the soffit at 1220mm centres with ceiling angle of width 25mm x 10mm x 0.55mm thk fixed to soffit with GI cleat & steel expansion fasteners. Ceiling section of 0.55mm thk having web of 51.5mm & flanges of 20mm each with lips of 10.5mm are then fixed to the intermediate channels with the help of connecting clips & in direction perpendicular to the intermediate channels with centres 6mm tapered edge calcium	Sft	422.00		

	silicate board is then fixed to ceiling section with 25mm wall screws at 230mm centres and joints are fixed with tape and finished smooth & cutting in holes for light fitting ,Speakers ,AC Outlet, fire detector etc. complete as per Design, drawing & specification. including cost of all materials, labour T & P Transportation, Taxes etc. complete as per direction of Engineer -in- Charge..Make- Armstrong / Aerolite			
G.i.2	Providing & fixing in position artificial Venner False Ceiling in any height including GI channels frame work along with ply backing finished with veneer of approved shade ,polished with 2 coats of melamine polish. Including Cost of cutting of holes for light fittings ,Speakers ,Smoke Detector Ac Outlet etc. & all materials, labour T & P Transportation, Taxes etc. complete as per drawing & specification andas per direction of Engineer -in- Charge.. Make- Greenlam/ Century/ Merino	Sft	54.00	
G.i.3	Providing , Making & fixing of Trap Door for A C made of 19mm thk board and finished as per false ceiling finish. The frame shall be fixed to existing RCC slab including all necessary hardware fittings complete as per drawing and as per direction of Engineer -in- Charge..	Sft	32.00	
G.j.	Cable trunking alongwith Flooring & Cladding works			
G.j.1	Providing and laying with min 7 ply Engineered wood flooring of min panel size (1200mmX120mm) and thickness 8mm of approved make. complete with approved make complete as per the detail architectural drawings as per direction of Engineer -in- Charge... Make- Armstrong / Green Ply / Wonderfloor.	Sft	408.00	
G.k.	Misslenious & Allied Works			
G.k.1	Providing and Laying Half Brick Work with bricks of class designation 75 as directed in Half brick thick walls in Superstructure laid in cement mortar 1:4 (1 cement : 4 coarse sand) joints finished flush / raked to 12mm depth as work proceeds as directed, cured etc. complete as per specification and drawing or as per	Cum	1.00	

	direction of Engineer -in- Charge..			
G.k.2	12 to 15mm thick Plaster to walls columns etc. in cement mortar 1:6 (1 cement: 6 coarse sand) applied, perfect line & levels, finished smooth and cured complete to internal walls, including chicken wire mesh on all R.C.C & Brick joints as per direction of Engineer -in- Charge..	Sft	115.00	
G.l.	Dismantalling Work as per direction of Engineer -in- Charge	LS		
G.m.	AMC for Item Sl.No G.a. to G.k.2			
	PERTICULARS		PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENTAGE IN RS.
G.k.1	AMC Charges for 4 th. & 5 th. year			
G.k.2	AMC Charges for 6 th. & 7 th. year			
H	LIGHTENING PROTECTION SYSTEM FOR BUILDING OF TRAFFIC CONTROL ROOM KUMBHARPADA PURI MAKE : ABB INDIA LTD. / UNIVERSAL			
H.1	Supply, delivery, installation, testing and commissioning of Early Streamer Emission (ESE) Lightning protection Airterminal complying with NFC - 17-102 standards OPR-30 or equivalent complete as required and as per Electrical Engineer-in-Charge.	No	1	
H.2	Supply, delivery, installation, testing and commissioning of support structure for Lightning Protection Air Terminal fabricated out of GI pipe along with base plate, Guy wire clamping system, termination arrangement for the down conductor complete as required and as per Electrical Engineer-in-Charge.	No	1	
H.3	Supply, delivery, installation, testing and commissioning of Lightning strike counter working electro mechanically without any power supply complete as required and as per Electrical Engineer-in-Charge .	No	1	
H.4	Supply of materials and laying on ceiling/ column/ wall or buried under ground including saddling & making connection at both ends and testing with 25 x 6 mm copper flats for roof conductor / down conductor / earth termination and earth interconnection, making good the damages caused as required complete as per Electrical Engineer-in-Charge .	Mtr.	35	

H.5	Supply, delivery, installation, testing and commissioning of maintenance free earthing using enhancing chemical compound with copper bonded steel rod with minimum 3.0mts long and suitable termination clamps complete as required and as per Electrical Engineer-in-Charge .	No	2		
H.6	AMC for Item Sl.No H.1 to H.5				
	PERTICULARS			PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENTAGE IN RS.
H.6.1	AMC Charges for 4 th. & 5 th. year				
H.6.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF H				
I	D.G.SET FOR TRAFIC CONTROL ROOM AT KUMBHARPADA , PURI MAKE : KIRLOSKAR OIL ENGINES LTD. / MAHINDRA & MAHINDRA / JAKSON LIMITED				
I.1	DESIGN, SUPPLY, ERECTION, COMMISSIONING AND TESTING OF 30-KVA 3 PHASE SILENT TYPE DG SETS, 415V, 50 HZ, 1500 RPM , 0.8 P.F. WITH CPCB-II COMPLINED WITH MICROPROCESSOR BASED CONTROLLER ALONG WITH AMF CONTROL PANEL , CABLING WITH 35 SQ.MM 3.5 CORE AL. PVC ARMOURED CABLE WITH SOCKETING AND CONNECTION. , 4 NOS OF EARTHING WITH GI FLAT ,MS PIPE EXHAUST SYSTEM FOR DG SET AS PER SPECIFICATION INCLUDING 35 LTRS. OF FUEL as per direction of Engineer -in-Charge...	SET	1		
I.2	CEMENT CONCRETE FOUNDATION SPECIFICATION as per direction of Engineer -in- Charge I. HEIGHT- 1.5 FT. II. WIDTH- 4 FT. III. LENGTH -9 FT.	JOB	1		

I.3	CONSTRUCTION OF SHED FOR DG SET SPECIFICATION OF SHED as per direction of Engineer -in- Charge a. HEIGHT- 9.0 FT. b. WIDTH- 6.0 FT. c. LENGTH -11.0 FT. d. ROOF- MADE WITH 40 MM THICK BOTH SIDE SLOOPY FIBER SHEET . e. FRAME STRUCTURE- MADE WITH 1 ½” HEAVY DUTY SQUARE M.S. PIPE.	JOB	1		
I.4	AMC for Item Sl.No I.1				
	PERTICULARS			PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENTAGE IN RS.
I.4.1	AMC Charges for 4 th. & 5 th. year				
I.4.2	AMC Charges for 6 th. & 7 th. year				
	SUB TOTAL OF I				
J	Execution of Electrical & interior furnishing work of Jagannath Temple , Puri for Nabakalebar Festival.				
J.a	Flooring & Wall cladding Works				
J.a.1	Providing and laying with min 7 ply Engineered wood flooring of min panel size (1200mmX120mm) and thickness 8mm of approved make. complete with approved make complete as per the detail architectural drawings and specifications as per direction of Engineer -in- Charge...Make- Armstrong / Green Ply / Wonderfloor	Sft	210.00		
J.b	False Ceiling Work				
J.b.1	Providing and Fixing in position Suspended Calcium silicate board artificial false ceiling in any height of approved manufacture includes providing and fixing GI perimeter channels of 0.55mm thk having one flange of 20mm & another of 30mm & web of 27mm along the perimeter of the ceiling screw fixed to back wall / partition with the help of nylon sleeves & screws at 610mm centres. The	Sft	142.00		

	<p>suspended GI intermediate channels of size 45mm, 0.9mm thk with two flanges of 15mm each from the soffit at 1220mm centres with ceiling angle of width 25mm x 10mm x 0.55mm thk fixed to soffit with GI cleat & steel expansion fasteners. Ceiling section of 0.55mm thk having web of 51.5mm & flanges of 20mm each with lips of 10.5mm are then fixed to the intermediate channels with the help of connecting clips & in direction perpendicular to the intermediate channels with centres 6mm tapered edge calcium silicate board is then fixed to ceiling section with 25mm wall screws at 230mm centres and joints are fixed with tape and finished smooth & cutting in holes for light fitting ,Speakers ,AC Outlet, fire detector etc. complete as per Design, drawing & specification. including cost of all materials, labour T & P Transportation, Taxes etc. complete as per direction of Engineer -in- Charge...Make- Hilux/ Gyprock.</p>			
J.b.2	<p>Providing & fixing in position artificial Vener False Ceiling in any height including GI channels frame work along with ply backing finished with veneer of approved shade ,polished with 2 coats of melamine polish. Including Cost of cutting of holes for light fittings ,Speakers ,Smoke Detector Ac Outlet etc. & all materials, labour T & P Transportation, Taxes etc. complete as per drawing & specification as per direction of Engineer -in- Charge.. .Make- Greenlam/ Century/ Merino</p>	Sft	24.00	
J.b.3	<p>Providing , Making & fixing of Trap Door for A C made of 19mm thk board and finished as per false ceiling finish. The frame shall be fixed to existing RCC slab including all necessary hardware fittings complete as per drawing and details as per direction of Engineer -in- Charge...</p>	Sft	12.00	
J.c	Fixed Interior Work			
J.c.1	<p>Providing & fixing in position of High Impact/Heavy duty Non load bearing type double skin 2 hour Fire rated dry wall Partition of 98 mm thick comprising of a composite framework which includes a 48</p>	Sft	168.00	

	<p>mm stud of 0.55 mm thick and having two unequal flanges of 48 and 50 mm each placed at 610 mm center to center in 50 mm floor and ceiling channel with two equal flanges of 32 mm each fixed to floor and ceiling at 600 mm center, with the help of nylon sleeves and wood screws. Two layers of 12 mm thick Hilux boards are then screw fixed to the studs and channels at 200 mm centres on both sides of the frame work, with 25 & 35 mm long self drilling & tapping screws having Phillips head with under head cutter, for first and second layer boards respectively. The board's joints are to be staggered to avoid through passage. Finally edges of the Boards are to be jointed and finished so as to have a flush look which includes filling and finishing with elasto prefab joint sealant specially formulated jointing compound and 48 mm wide self-adhesive fibre tape. including the cost of material, labour, tools and tackles, all consumable with best workmanship to complete as per the drawing, as per direction of Engineer - in- Charge..Make-i. GI Frame-IGL/ Equivalent , ii- Board - Hilux/ Gyprock)Make- Armstrong / Aerolite.</p>			
J.c.2	<p>Providing , fixing and making Sound Insulation (100 - 3150 Hz) – 43 dB by 50 mm thick (Density -64 Kg/m3) ceramic wool mat in to the cavity of the fire rated dry wall partition & Panneling as per direction of Engineer -in- Charge.. .Make- Twuga/ Equivalent</p>	Sft	294.00	
J.c.3	<p>Providing & fixing Veneer wall panelling / Lining in different level with consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished with 8mm Calcium Silicate board with excellent Fire ,moisture registrant , termite proof & good sound insulation properties. Finished with 4mm thick Veneer of approved shade & design including melamine polish of approved shade on exposed wooden/ veneer surface complete in all respect as per design & drawings as per direction of Engineer -in- Charge... .Make- Twuga/ Equivalent</p>	Sft	294.00	

J.c.4	<p>Providing and fitting and fixing of Elevated gallery at desired shape, level and height with adequate steps for easy access to elevated gallery. The under structure is to be made up of load bearing 100 mm square Ms columns positioned in a grid manner 600 mm c/c with appropriate ms transversal sections welded between them to obtain the necessary stability to the structure. The under structure to be treated for corrosion and coated with epoxy conductive paint. Base of gallery floor shall be of high impact/heavy duty 18 mm thick cement fibre boards screwed on to under structure @ 300 mm c/c. including the cost of material, labour, tools & tackles, all consumable with best workmanship to complete as per the drawing, specification as per direction of Engineer -in- Charge.</p>	Sft	15.00	
J.c.5	<p>Providing and fixing In-situ Curve workstation (2'-6" x 3'0" x 3'9") of desired shape with 19mm thick ply as specified with keyboard, as per the drawing including necessary writing white board, pin up board facility. All the exposed wooden surface to be finished with approved shade of laminates complete including cost of all materials, labour T & P Transportation, Taxes etc as per drawing as per direction of Engineer -in- Charge.. .</p>	No	2.00	
J.c.6	<p>Horizontal Desk fix Design Twin Arm LED Monitor Support Stand . (Pole height 18" , The Stand will have tilt , Swivel & Remote arms . It can accommodate Monitor upto 17" to 24" complete with Management Integrated cable System as per direction of Engineer -in- Charge.. .</p>	No	2.00	
J.c.7	<p>Providing and fixing in position to door frames (measured separately) exterior grade Flush Door (Venner Finish) shutters using BWP type, phenol formaldehyde synthetic resin adhesive, core of block board construction with frame of first class hard wood, BWP ply veneering on both sides including all incidental work, including providing and fixing 15mm thick wooden lipping to sides edge & bottom 40 mm thk. with</p>	Sft	21.00	

	grooves /rebates as approved all around the flush door shutters with veneer , cost of providing and fixing 3 nos each leaf with butt hinges with necessaries S.S. screws of adequate size, all fixing accessories etc. as per the design & specifications as per direction of Engineer -in- Charge.. . Make- Greenlam/ Century/ Merino			
J.c.8	Providing and fixing in position 12mm thick Toughened frameless glass Partition of shape & size as per design having supported by necessary fittings of approved make and with proper locking arrangement item to be completed in all respects as per drawings as per direction of Engineer -in- Charge.. .	Sft	12.00	
J.c.9	Providing & fixing Acoustic wall panelling / Lining in different level with consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished with 65 % Pritch Work on MDF Board as per direction of Engineer -in- Charge...Make- Green/ Century	Sft	210.00	
J.c.10	Providing & fixing Wall panelling / Lining in different level with (Calcium silicate board) consisting of metal tube frame work 45 mmx18 mm members fixed to wall at a spacing not more than 600mm finished as per direction of Engineer -in- Charge....Make- Hilux/ Gyprock.	Sft	210.00	
J.c.11	Providing & Fixing Storage / Shoe Rack as per direction of Engineer -in- Charge.	Sft	44.00	
J.d.	Loose Furniture Works.			
J.d.1	Providing & Supplying of Revolving Chair as per direction of Engineer -in- Charge Featherlite / Godrej Make Model- Advantage Mid Back.	No	2.00	
J.e.	Paint & Finish Works			
J.e.1	Providing & applying Paint with two or more coats of Best quality Acrylic Emulsion Paint with Putty of approved brand, shade and manufacture including preparing of plastered surface, one coat of cement primer, three time filling and one coat of flat enamel paint to give an even shade on walls and ceiling, including	Sft	436.00	

	<p>providing necessary scaffolding, cleaning the surface with water to remove all coating dust etc. including cost of all materials, labour, T&P, brush putty, taxes etc. complete as per specification. complete in all respect. as per direction of Engineer -in- Charge..MAKE- ASIAN / BERGER/ NIROLAC</p>			
J.f.	Electrical Works.			
J.f.1	<p>Supply and fixing of Point wiring for Light with modular grid plate & cover plate mounted on same size of recess zinc chromate passivated flush metal box including required no. of 240volt 10 amp modular switch , blank plate if required with 2 x1.5 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor complete with all other materials as required and as per direction of Engineer -in- Charge .[Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]</p>	Point	14.00	
J.f.2	<p>Supply and fixing of 10A modular switch & socket outlet complete with 1 no of 240 volt 6 amp 4 pin universal round/flat pin combined shuttered socket outlet & 1 no. of 240 volt 10 amp control switch mounted on modular grid plate, all housed in a 3 module with 2 x1.5 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor. as per direction of Engineer -in- Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]</p>	Nos	14.00	

J.f.3	Supply and fixing of 20 A modular switch & socket outlet complete with 1 no of 240 volt 20 amp 4 pin universal round/flat pin combined shuttered socket outlet & 240 volt 20 amp control switch mounted on modular grid plate, all housed in a 4 module with 2 x6.0 sq.mm PVC insulated 1100v grade FRLS copper wire run inside required size polythene pipe /19 mm PVC pipe of 14 SWG or flexible conduit pipe laid on surface concealed in wall / ceiling along with 1 x 1.5 sq.mm. PVC insulated FRLS copper wire as earth continuity conductor as per direction of Engineer -in-Charge [Make- (a)Switch, ceiling rose, angle holder, bell push switch, batten holder etc– Anchor Roma/legrand ,(b) Wires - Finolex/RR /Havells (c) all other materials ISI marked of reputed company]	Nos	4.00	
J.f.4	Circuit wiring for 10A Power Plug / Light point in existing required size polythene pipe /19 mm PVC pipe with single core 2.5 sq.mm (2Run) +1.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire of approved make complete with all other necessary materials & labour.as per direction of Engineer -in- Charge.[(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	140.00	
J.f.5	Circuit wiring for Lighting Switch Board & 20 A Power Plug point in existing required size polythene pipe /19 mm PVC pipe with single core 4 sq.mm (2Run) +2.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge.[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	38.00	
J.f.6	Sub-main wiring for Lighting & Power distribution board & Pression AC in existing required size polythene pipe /19 mm PVC pipe with single core 10sq.mm (4Run) + 6 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in-Charge....[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked	Mtr	75.00	

	of reputed company]			
J.f.7	Sub-main wiring for UPS & Power distribution board in existing required size polythene pipe /19 mm PVC pipe with single core 6sq.mm (4Run) + 2.5 sq.mm (2run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge..[Make-(a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	22.00	
J.f.8	Sub-main wiring for Spilt AC in existing required size polythene pipe /19 mm PVC pipe with single core 6 sq.mm (2run) + 2.5 sq.mm (1run) PVC insulated un-sheathed FRLS Cu.conductor wire with all other necessary material as per direction of Engineer -in- Charge .[Make- (a) Wires - Finolex/RR /Havells (b) all other materials ISI marked of reputed company]	Mtr	65.00	
J.f.9	Supply & fixing of 3 ph. 6 way, triple pole and Neutral, sheet steel MCB double door AC distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 18 nos of 6 to 32 Amps rating, 240Volts, 'C' curv. as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schneider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	Nos	2.00	
J.f.10	Supply & fixing of 1 ph.12 way, single pole and Neutral, sheet steel MCB double door UPS distribution box complete with tinned copper busbar, neutral link, earth bar, din rail, detachable gland plate including 10 nos of 6 to 32 Amps rating, 240Volts, 'C' curv. as per direction of Engineer -in- Charge.[Make-(a)MCB- Legrand/ Schneider/L&T/ ABB , (b) all other accessories ISI marked of reputed company]	Nos	1.00	
J.f.11	Earthing with copper earth plate electrode of 600 mm x 600 mm x 3 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and 2.5 mtr. long 50dia. G.I pipe for watering, including 25 x 3 mm size Cu. flat as per direction of Engineer -in- Charge(Make-	Nos	2.00	

	TATA MEDIUM DUTY)			
J.f.12	Supply & laying of 50 sq.mm single core PVC insulated Al. flexible cable at 0.5 mm below ground level for earth electrode, including soldering / termination etc. with all required materials as required.as per direction of Engineer - in- Charge.[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Mtr	30.00	
J.f.13	Supply & Laying of Under floor cable management Cable Trey System with 16 gauge of following sizes & other necessary materials as per direction of Engineer -in- Charge			
	i)200mm x 40 mm x 1.6mm	Mtr	7.50	
	ii)100mm x 40 mm x 1.6mm	Mtr	9.00	
	iii)50mm x 40 mm x 1.6mm	Mtr	11.00	
J.f.14	Supply and fixing hard drawn PVC recessed and/or surface conduits including cost of providing saddles, elbow, bend etc for surface conduiting and/or cost of cutting and filling chases for recessed conduiting complete as per specifications as as per direction of Engineer -in- Charge			
i	25mm dia	Mtr	80.00	
ii	19mm dia	Mtr	45.00	
J.g	Light Fitting & Fixture.			
J.g.1	Providing and fixing of recessed mounted Step Light 1 watt LED s per direction of Engineer -in- Charge . MAKE- CROMPTON/ PHILIPS	Nos	2.00	
J.g.2	Providing and fixing of recessed mounted 12 watt LED downlighterss per direction of Engineer -in- Charge. MAKE- CROMPTON/ PHILIPS	Nos	6.00	
J.g.3	Providing and fixing of high efficiency LED Stripe luminaire ensuring a uniform and consistent lighting for morden offices.s per direction of Engineer -in- Charge	Rmt	20.00	
J.h	A.C. FITTING & FIXTURE			
J.h.1	Supply and installation of 2.0 Tr. Split type Air Conditioner (4 Star rated) of reputed brand with supply and fixing of 6	NOS	2.00	

	KVA ,130-280 Volt voltage range wall/floor mounted stabiliser including all accessories,fastner angle copper piping up to 15ft & connections as per instruction of Electrical Engineer-in-charge MAKE – CARRIER SUPERIA, CODE-42KGN-024N (INDOOR), 51MSN-024NN (OUT DOOR)/MAKE – BLUE STAR, CODE-5HW24MA, MAKE of Wall /Floor mounted STABILIZER-JYOTI/ SHAKTI/ AUTOTAKE			
J.h.2	Providing & Fixing Super quality Copper Pipe with Installation as per direction of Engineer -in- Charge	Rmt	155.00	
J.h.3	Providing & Fixing 2.5 Sqmm 4 Core Cable as per direction of Engineer -in- Charge[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Rmt	155.00	
J.h.4	Providing & Fixing 2.5 Sqmm 3 Core Cable as per direction of Engineer -in- Charge[Make- (a) Cable - Finolex//Havells (b) all other accessories ISI marked of reputed company]	Rmt	135.00	
J.h.5	Providing & Fixing Super quality PVC Drain Pipe as per direction of Engineer -in- Charge	Rmt	155.00	
J.i.	Data & Voice Works.			
J.i.1	Supply & fixing of information outlet box suitable for RJ 45 terminals including mounting box (G.I/PVC) & top cover , to be fixed in concealed manner in partition/wall by necessary bolts & nuts or As per direction of Engineer -in- Charge(MAKE - DIGI-LINK)/EQUIVALENT	Nos	4.00	
J.i.2	Supply & Fixing of Pop-up Box with 1 x universal power Socket,1 x RJ 45 Netwok, 1 x VGA, 1 x 3.5mm Audio, 1 x HDMI & 1 x USB complete with all other meterials.As per direction of Engineer -in- Charge MAKE- HAFELLE/ HETTICH.	Nos	2.00	
J.k	Sefty & Security Works			
J.k.1	Rodent Control System			
	Provding and installing Rodent control system for control room, consisting of Transducers 40 nos, VHFO Controler 2	Set	1.00	

	nos and cable. Including all necessary hardware As per direction of Engineer -in-ChargeMAKE - MASAR / EQUIVALENT			
J.1	Miscellaneous & Allied Works			
J.1.1	Providing and Laying Half Brick Work with bricks of class designation 75 as directed in Half brick thick walls in Superstructure laid in cement mortar 1:4 (1 cement : 4 coarse sand) joints finished flush / raked to 12mm depth as work proceeds as directed, cured etc. complete as per specification and drawing or as per direction of Engineer -in- Charge..	Cum	1.20	
J.1.2	12 to 15mm thick Plaster to walls columns etc. in cement mortar 1:6 (1 cement: 6 coarse sand) applied, perfect line & levels, finished smooth and cured complete to internal walls, including chicken wire mesh on all R.C.C & Brick joints.as per direction of Engineer -in- Charge..	Sft	48.00	
J.m.	Dismantling Work as per direction of Engineer -in- Charge..	LS		
J.n	AMC for Item Sl.No J.a to J.1.2			
	PERTICULARS		PERCENTAGE ON QUOTED PRICE	AMOUNT OF PERCENTAGE IN RS.
J.n.1	AMC Charges for 4 th. & 5 th. year			
J.n.2	AMC Charges for 6 th. & 7 th. year			
	SUB TOTAL OF J			
K	Fire Alarm System at Jagannath Temple , Puri for Nabakalebar Festival. MAKE : L & T (SHRACK) / GST			
K.1	Fire Alarm Control Panel Bell Circuit, Integrated PSU with Battery Charger, Excluding Batteries.as per direction of Engineer -in- Charge	SET	1	
K.2	Common Detector Base for Addressable & Conventional Detectors as per direction of Engineer -in- Charge	SET	2	
K.3	Combined Optical Smoke, Fixed Temperature and Rate of Rise Heat Detector, Drift Compensation, Sensitivity Adjustment, 8 Bit Processor with Remote Indicator Output as per direction of	SET	2	

	Engineer -in- Charge			
K.4	Fixed Temperature and Rate of Rise Heat Detector, 8 Bit Processor with Remote Indicator Output as per direction of Engineer -in- Charge	SET	1	
K.5	Semi Flush Mounting Re-settable (Non-Breaking Glass), Supplied with Special Reset Tool as per direction of Engineer -in- Charge	SET	1	
K.6	Anti Tamper Security Cover - Protects call point from accidental operation as per direction of Engineer -in- Charge	SET	1	
K.7	New Loop Powered Combined Base Mount Sandwich Type Sounder and Strobe, Multi Tone, 80 DB@1M as per direction of Engineer -in- Charge	SET	1	
K.8	Cease Fire ABC Class 2 KG Powder based Portable Fire Extinguisher as per direction of Engineer -in- Charge	SET	2	
K.9	12v 7 Ah Batteries as per direction of Engineer -in- Charge	SET	2	
K.10	Supply and laying of 1.5 sqmm 2 core Copper Armoured cable per running metre of cable used as per direction of Engineer -in- Charge	MT R	45	
K.11	Dismantalling Work as per direction of Engineer -in- Charge	LS	LS	
K.12	4" x 4" GI Surface mounted Box as per direction of Engineer -in- Charge	SET	2	
K.13	Remote Indicator as per direction of Engineer -in- Charge	SET	2	
K.14	System installation, testing and commissioning charges As per direction of Engineer -in- Charge.	JOB	1	
K.15	AMC for Item Sl.No K..1 to K.14			
	PERTICULARS			PERCENTAGE ON QUOTED PRICE
K.15.1	AMC Charges for 4 th. & 5 th. year			AMOUNT OF PERCENTAGE IN RS.
K.15.2	AMC Charges for 6 th. & 7 th. year			
	SUB TOTAL OF K			

Seal & Signature of the Vendor

Sd/-
Joint Manager (Elect.)