



Tel.: 0612 – 2297631, 2297099; FAX: 0612 – 2297225; Website: www.igims.org; E-Mail:director@igims.org

BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO. Engg. 09 / EW /2021-22

SINo-01

01	Name of the Work	Earthing for newly installed UPS's & Isolation Transformer of different area in hospital complex and supply, Laying of cable for PG hostel, Block-B and flood light connection at "A" type quarter, IGIMS, Patna-14		
02	Estimated cost	Rs.12,62,032 (Rs. Twelve lacks sixty two thousand thirty two only)		
03	Cost of BOQ	As per NIT		
04	Amount of earnest money to be deposited	As per NIT		
05	Time of Completion	As per NIT		
06	Date of receipt of Tender documents (In hard copy)	As per NIT		
07	Date of opening of Tender	As per NIT		
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14		
Sl.No.	Schedule Items	Unit	Qty.	Rate
1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.			
a)	Up to 35 sq. mm	Meter	110.00	144.00
b)	Above 35 sq. mm and up to 95 sq. mm	Meter	120.00	151.00
2	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.			
a)	Up to 35 sq. mm (Clamped with 1 mm thick saddle)	Meter	435.00	29.00
3	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.			
a)	4 X 35 sq. mm (32mm)	Each	4.00	302.00
b)	4 X 16 sq. mm (28mm)	Each	10.00	250.00
c)	3½ X 50 sq. mm (35mm)	Each	2.00	329.00
4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	27.00	6276.00
5	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	12.00	12831.00

6	Supplying and laying 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, including connection with brass nut, bolt, spring, washer excavation and refilling etc. as required.	Meter	120.00	1286.00
7	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Meter	364.00	1032.00
8	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	1080.00	150.00
9	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.			
a)	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Meter	108.00	161.00
b)	4 X 35 sq. mm + 1 X 16 sq. mm earth wire	Meter	20.00	1587.00
10	Supply and fixing pole mounted junction box/fuse box for three phase/ 4 core high wattage HPSV/HPMV/MH street light pole with all accessories and connection etc. as required.	Each	8.00	875.00
11	Supply of 4 core, 16 sq. mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	Meter	545.00	141.42
12	Supply of 3.5 core, 50 sq. mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	Meter	120.00	277.22
13	Supplying and fixing Floor mounted outdoor feeder pillar cubical type panel board, fabricated with 14 gauge iron sheet suitable for panel mounted SFU/MCCB and complete with bus-bar chamber, insulator, nut-bolt with MS40X40X5mm angle stand and complete with powder painting etc as required. (But without bus bar copper strip, MCCB, & PCC work	sq. ft.	6.00	2058.00
14	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.			
b)	25/100 Amp, 16 KA	Each	1.00	3254.00

Quoted Rate –

A. _____% above.

B. _____% below.

C. At estimated Cost.

Note: - Contractors are required to quote their rate % above % below or at estimated cost, in prescribed Format. Tenderer quoting item-wise rate will be rejected.

01. Issued to – Name of Contractor -

02. **Full Address**

03. **E.M.D. Details** D.D. No.....Date.....Amount.....

04. **Registration Number** -

05. **Time of Completion**

Signature of Contractor with Date

**Electrical Executive Engineer
I.G.I.M.S., Patna-14**

Non-Schedule-Item

Sr.No.	Schedule Item	Unit	Qty.	Rate
15	Supply and fixing of single phase (220 v) analog time switch	Each	1.00	
16	Supply and fixing of 3 Pole power contactor 32 Amps ML 2, 2 NO+ 2 NC	Each	1.00	

NOTE-Tenderer are requested to quote their rates against above (NSI) item.

Signature of Contractor with Date

**Electrical Executive Engineer
IGIMS, Patna**



INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES SHEIKHPURA, PATNA – 14 (BIHAR)
(Autonomous Institute of Govt. of Bihar)

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BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO. Engg. 09 / EW /2021-22

SI.No-02

01	Name of the Work	CMC of Fire Fighting suppression cylinders installed in electrical Panels at IGIMS, Patna-14
02	Estimated cost	Rs.9,27,400.00 (Rs. Nine lacks twenty seven thousand four Hundred only) `
03	Cost of BOQ	As per NIT
04	Amount of earnest money to be deposited	As per NIT
05	Time of Completion	As per NIT
06	Date of receipt of Tender documents (In hard copy)	As per NIT
07	Date of opening of Tender	As per NIT
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14

Sl.No.	Non-Schedule Items	Unit	Qty.	Rate
1	Annual Maintenance contract for NOVEC 1230 based fire suppression system inclusive of Quarterly visit which includes checking the pressure Gauge, carrying out visual check-up of automatic detection tube and its tube supports & tightness, testing of pressure switch, auxiliary devices, Cylinder mounting Bracket, Nitrogen filling if required, NOVEC 1230 Gas Refilling if required. Detailed service report on quarterly basis for each system. Capacity-2.5 lbs.	Each	3.00	
2	Annual Maintenance contract for NOVEC 1230 based fire suppression system inclusive of Quarterly visit which includes checking the pressure Gauge, carrying out visual check-up of automatic detection tube and its tube supports & tightness, testing of pressure switch, auxiliary devices, Cylinder mounting Bracket, Nitrogen filling if required, NOVEC 1230 Gas Refilling if required. Detailed service report on quarterly basis for each system. Capacity-5 lbs.	Each	37.00	

01. Issued to – Name of Contractor -

02. **Full Address**

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04. **Registration Number** -

05. **Time of Completion**

NOTE-Tenderer are requested to quote their rates against above (NSI) item.

Signature of Contractor with Date

**Electrical Executive Engineer
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BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO.Engg. 09 /EW /2021-22

Sl.No-03

01	Name of the Work	Comprehensive Annual Maintenance Contract (CAMC) & Rectification of 3-phase Phase sequence corrector installed at IGIMS Patna -14		
02	Estimated cost	Rs.8,00,000.00 (Rs. Eight lacks only) `		
03	Cost of BOQ	As per NIT		
04	Amount of earnest money to be deposited	As per NIT		
05	Time of Completion	As per NIT		
06	Date of receipt of Tender documents (In hard copy)	As per NIT		
07	Date of opening of Tender	As per NIT		
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14		
Sl.No.	Schedule Items	Unit	Qty.	Rate
1	Comprehensive Annual Maintenance Contract of (including contactor ,Internal ckt ,Connector, Indicator, Relay, etc.) all complete of 250A,3 phase, phase sequence corrector installed at IGIMS Patna-14	Each	14.00	20000.00
2	Rectification of (including contactor ,Internal ckt, Connector, Indicator, Relay, etc.) all complete of 250A,3 phase, phase sequence corrector installed at IGIMS Patna-14	Each	7.00	40000.00
3	Comprehensive Annual Maintenance Contract of (including contactor ,Internal ckt ,Connector ,indicator, Relay, etc.) all complete of 400A,3 phase, phase sequence corrector installed at IGIMS Patna-14	Each	3.00	25000.00
4	Rectification of (including contactor ,Internal ckt ,Connector, Indicator, Relay, etc.) all complete of 400A,3 phase, phase sequence corrector installed at IGIMS Patna-14	Each	3.00	55000.00

Quoted Rate –

A. _____% above.

B. _____% below.

C. At estimated Cost.

Note: - Contractors are required to quote their rate % above % below or at estimated cost, in prescribed Format. Tenderer quoting item-wise rate will be rejected.

01. Issued to – Name of Contractor -

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05. **Time of Completion**

Signature of Contractor with Date

**Electrical Executive Engineer
I.G.I.M.S., Patna-14**



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BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO. Engg. 09 /EW /2021-22

SINo-04

01	Name of the Work	Replacement of inefficient split air-conditioners with VRV/VRF Air Conditioning work of old and new day care at IGIMS Patna-14
02	Estimated cost	Rs.14,95,700.00 (Rs. Fourteen lacks ninety five thousand seven Hundred only) `
03	Cost of BOQ	As per NIT
04	Amount of earnest money to be deposited	As per NIT
05	Time of Completion	As per NIT
06	Date of receipt of Tender documents (In hard copy)	As per NIT
07	Date of opening of Tender	As per NIT
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14

Scheduled Items

Sl.No.	Item	Unit	Qty.	Rate
1	Wiring for circuit/sub-main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit as required			
a)	2 x 2.5 sq.mm. + 1 x 2.5 sq.mm. earth wire	Meter	205.00	161.00
c)	4 x 10 sq.mm. + 1 x 10 sq.mm. earth wire	Meter	40.00	593.00
2	Supplying and fixing TPN sheet steel enclosure on surface/recess along with 63amps 415volts,"C"curve TPN MCB complete with connections, testing and commissioning etc. as required.		1.00	1919.00
3	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
a)	6/32 Amps Single Pole	each	9.00	192.00
b)	40 amps, Triple pole and neutral	each	1.00	511.00
4	supplying and fixing following way horizontal type three pole and neutral sheet steel MCB distribution board 415 volts on surface/ recess complete with tinned copper bus bar neutral bus bar , earth bar , din bar interconnections , powder painted including earthing etc. as required			

a)	4 way (4 + 12), double door, horizontal type	each	1.00	2388.00
5	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required			
a)	3½ X 50 sq. mm (35mm)	each	2.00	329.00
6	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required			
a)	Above 35 sq. mm and up to 95 sq. mm (Clamped with 25 x 3 mm MS flat clamp)	Meter	70.00	68.00
7	Supply of 3.5 core 50 sq mm XLPE/PVC insulated PVC sheathed (heavy duty) armored electrical cable with aluminium	Meter	70.00	286.82

Quoted Rate –

- A. _____% above.
 B. _____% below.
 C. At estimated Cost.

Note: - Contractors are required to quote their rate % above % below or at estimated cost, in prescribed Format. Tenderer quoting item-wise rate will be rejected.

01. Issued to – Name of Contractor -
02. **Full Address**
03. **E.M.D. Details** D.D. No.....Date.....Amount.....
04. **Registration Number** -
05. **Time of Completion**

Signature of Contractor with Date

**Electrical Executive Engineer
 I.G.I.M.S., Patna-14**

Non-Schedule-Item

SI.No.	Non Schedule Item	Unit	Qty.	Rate
7	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14HP modules, microprocessor based Controller ,top discharge type condensing unit(s),with R410A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRIC Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V+/-10% , 3Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5.	hp	20.00	
8	Supply, installation, testing and commissioning of following minimum capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cordless remote control, drain pan, necessary accessories etc., suitable for operation on 230V±10%, 50Hz, single phase AC supply, complete as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.			
a)	2TR	each	8.00	
9	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories,			

	insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :			
	9.5mm dia (OD)(Soft drawn) with tube thickness 1.2mm with 19mm thick insulation	each	140.00	
c)	15.86 mm dia(OD) (Softdrawn) with tube thickness1.2mmwith19mm thick insulation	each	128.00	
e)	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	30.00	
f)	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	20.00	
g)	28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	38.00	
11	Supply, installation, testing & commissioning of control cum transmission wiring of 2 core x 1.5 Sq mm copper in suitable PVC conduits for interconnection between IDUs & ODUs.	Meter	225.00	
12	Rigid PVC drain pipe with fitting proper support at 5 feet interval and insulated with 6 mm thick closed cell nitrile rubber insulation			
a)	25 mm dia	Meter	40.00	
13	Topping up of additional Refrigerant (R-410A)	Kg	35.00	

NOTE-Tenderer are requested to quote their rates against above (NSI) item.

Signature of Contractor with Date

**Electrical Executive Engineer
IGIMS, Patna**



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BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO.Engg. 09 /EW /2021-22

SINo-05

01	Name of the Work	SIT&C of VRV/VRF air-conditioning work of CT scan and reporting room in radiology department, diagnostic building at IGIMS, Patna-14
02	Estimated cost	Rs.14,89,620.00 (Rs. Fourteen lacs eighty nine thousand six Hundred twenty only)
03	Cost of BOQ	As per NIT
04	Amount of earnest money to be deposited	As per NIT
05	Time of Completion	As per NIT
06	Date of receipt of Tender documents (In hard copy)	As per NIT
07	Date of opening of Tender	As per NIT
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14

Scheduled Items

Sl.No.	Item	Unit	Qty.	Rate
1	Wiring for circuit/ sub-main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required			
a)	2 x 2.5 sq.mm. + 1 x 2.5 sq.mm. earth wire	Meter	145.00	161
b)	2 x 16 sq.mm. + 1 x 16 sq.mm. earth wire	Meter	32.00	559
c)	4 x 16 sq.mm. + 1 x 16 sq.mm. earth wire	Meter	20.00	879
2	Supplying and fixing TPN sheet steel enclosure on surface/recess along with 63amps 415volts,"C"curve TPN MCB complete with connections, testing and commissioning etc. as required.	Each	1.00	1919
3	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
a)	6/32 Amps Single Pole	each	12.00	192
4	Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus-bar			
a)	2+12 way , single door	each	1.00	1,315.00
5	Supplying & fixing following rating, 240/415 volts,			

	"C" curve , miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc as required			
a)	50/63 Amps, Double pole	Each	1.00	919.00

Quoted Rate –

A. _____% above.

B. _____% below.

C. At estimated Cost.

Note: - Contractors are required to quote their rate % above % below or at estimated cost, in prescribed Format. Tenderer quoting item-wise rate will be rejected.

01. Issued to – Name of Contractor -

02. **Full Address**

03. **E.M.D. Details** D.D. No.....Date.....Amount.....

04. **Registration Number** -

05. **Time of Completion**

Signature of Contractor with Date

**Electrical Executive Engineer
I.G.I.M.S., Patna-14**

Non- Scheduled Items

SI.No.	Item	Unit	Qty.	Rate
6	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R410A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRIC conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V+/-10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5	HP	20.00	
7	Supply, installation, testing and commissioning of following minimum capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cordless remote control, drain pan, necessary accessories etc. suitable for operation on 230V±10%, 50Hz, single phase AC supply, complete as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27Degree C DB and 19 Degree C WB temperature.			
a)	1.65TR	each	10.00	
8	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :			
a)	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	65.00	
b)	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Each	75.00	
b)	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	110.00	

	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Each	35.00	
d)	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	25.00	
e)	28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	30.00	
g	Supply, installation, testing & commissioning of control cum transmission wiring of 2 core x 1.5 Sqmm copper in suitable PVC conduits for interconnection between IDUs & ODUs.	Meter	180.0	
10	Rigid PVC drain pipe with fitting proper support at 5 feet interval and insulated with 6 mm thick closed cell nitrile rubber insulation			
a)	25 mm dia	Meter	50.00	
11	Topping up of additional Refrigerant (R-410A)	Kg	33.00	

NOTE-Tenderer are requested to quote their rates against above (NSI) item.

Signature of Contractor with Date

**Electrical Executive Engineer
IGIMS, Patna**



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BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO.Engg. 09 / EW /2021-22

SINo-06

01	Name of the Work	Oil filtration of nine nos. transformer along with additional top-up of transformer oil, replacement of silica jel etc. installed at sub-stations of IGIMS.Patna-14
02	Estimated cost	Rs.6,72,478.00 (Rs. Six lacks seventy two thousand four Hundred seventy eight only) `
03	Cost of BOQ	As per NIT
04	Amount of earnest money to be deposited	As per NIT
05	Time of Completion	As per NIT
06	Date of receipt of Tender documents (In hard copy)	As per NIT
07	Date of opening of Tender	As per NIT
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14

SI.No.	Non-Schedule Items	Unit	Qty.	Rate
1	Oil filtration of transformer oil by filter machine at site	Liter	11770.00	
2	Supply and filling fresh 11 KV Grade Transformer oil	Liter	836.00	
3	Supply of silica gel blue	KG	10.00	
4	Transportation charges for filter machine	One job	1.00	
5	Spray painting of transformer at site with grey paint	Each	9.00	

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05. **Time of Completion**

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Signature of Contractor with Date

**Electrical Executive Engineer
I.G.I.M.S., Patna-14**



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BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO. Engg. 06 /EW /2021-22

SI No-07

01	Name of the Work	Replacement of Inefficient split air-conditioners with VRV/VRF air-conditioning system in Blood bank area of microbiology department at IGIMS, Patna-14
02	Estimated cost	Rs.14,98,100.00 (Rs. Fourteen lacks Ninety eight thousand one hundred only)
03	Cost of BOQ	As per NIT
04	Amount of earnest money to be deposited	As per NIT
05	Time of Completion	As per NIT
06	Date of receipt of Tender documents (In hard copy)	As per NIT
07	Date of opening of Tender	As per NIT
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14

Scheduled Items

Sr.No.	Schedule Item	Unit	Qty.	Rate
1	Wiring for circuit/sub main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required			
a)	2 x 2.5 sq.mm. + 1 x 2.5 sq.mm. earth wire	Meter	254.00	161.00
b)	4 x 10 sq.mm. + 1 x 10 sq.mm. earth wire	Meter	40.00	593.00
2	Supplying and fixing TPN sheet steel enclosure on surface/recess along with 63amps 415volts,"C"curve TPN MCB complete with connections, testing and commissioning etc. as required.	each	1.00	1919.00
3	Supplying and fixing following way, horizontal type three pole & neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus - bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)			
a)	4 way (4 + 12), double door, horizontal type	each	1.00	2388.00
4	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
a)	6/32 Amps Single Pole	each	12.00	192.00
b)	50/63 amps, Triple pole and neutral	each	1.00	1635.00

5	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required			
a)	3½ X 50 sq. mm (35mm)	each	2.00	329.00
6	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required			
a)	Above 35 sq. mm and up to 95 sq. mm (Clamped with 25 x 3 mm MS flat clamp)	Meter	70.00	68.00
7	Supply of 3.5 core 50 sq mm XLPE/PVC insulated PVC sheathed (heavy duty) armored electrical cable with aluminium	Meter	70.00	286.82

Quoted Rate –

A. _____% above.

B. _____% below.

C. At estimated Cost.

Note: - Contractors are required to quote their rate % above % below or at estimated cost, in prescribed Format. Tenderer quoting item-wise rate will be rejected.

01. Issued to – Name of Contractor -

02. **Full Address**

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04. **Registration Number** -

05. **Time of Completion**

Signature of Contractor with Date

**Electrical Executive Engineer
I.G.I.M.S., Patna-14**

Non-Schedule-Items

SI.No.	Non Schedule Item	Unit	Qty.	Rate
8	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R410A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRIC conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V+/-10%, 3Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5 . (14+10) HP	HP	18.00	
	Supply, installation, testing and commissioning of following minimum capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cordless remote control, drain pan, necessary accessories etc. suitable for operation on 230V±10%,50Hz, single phase AC supply, complete as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27Degree C DB and 19 Degree C WB temperature.			
a)	2 TR	each	4.00	
b)	1.45 TR	each	4.00	
9	Copper refrigerant piping with proper supports/hangers from ceiling/wall as required at site & approved by consultant & duly insulated with closed cell elastomeric nitrile insulation of 13mm thickness up to 22.4 mm OD & above 19mm OD for various sizes are as follows:			
a)	28.58 mm dia (insulation 19mm thick)	Meter	30.00	
b)	22.10 mm dia (insulation 19mm thick)	Meter	32.00	
c)	19.05 mm dia (insulation 19mm thick)	Meter	50.00	
d)	15.86 mm dia (insulation 13mm thick)	Meter	95.00	
e)	12.7 mm dia (insulation 13mm thick)	Meter	45.00	
f)	9.5 mm dia (insulation 13mm thick)	Meter	137.00	
g)	6.4 mm dia (insulation 13mm thick)	Meter	45.00	
10	Supply, installation, testing & commissioning of control cum transmission wiring of 2 core x 1.5 Sq mm copper in suitable PVC conduits for interconnection between IDUs & ODUs.	Meter	250.00	
11	Rigid PVC drain pipe with fitting proper support at 5 feet interval and insulated with 6 mm thick closed cell nitrile rubber insulation			
a)	25 mm dia	Meter	40.00	

12	Topping up of additional Refrigerant (R-410A)	Kg	43.40	
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NOTE-Tenderer are requested to quote their rates against above (NSI) item.

Signature of Contractor with Date

**Electrical Executive Engineer
IGIMS, Patna**



INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES SHEIKHPURA, PATNA – 14 (BIHAR)
(Autonomous Institute of Govt. of Bihar)

Tel.: 0612 – 2297631, 2297099; FAX: 0612 – 2297225; Website: www.igims.org; E-Mail:director@igims.org

BILL OF QUANTITY

SHORT URGENT TENDER NOTICE NO. Engg. 09 /EW /2021-22

SI No-08

01	Name of the Work	Replacement of inefficient split air-conditioners with VRV/VRF air-conditioning work of Lecture Theatre first floor administrative building at IGIMS, Patna-14
02	Estimated cost	Rs.14,96,800.00 (Rs. Fourteen lacs ninety Six Thousand eight Hundred only)
03	Cost of BOQ	As per NIT
04	Amount of earnest money to be deposited	As per NIT
05	Time of Completion	As per NIT
06	Date of receipt of Tender documents (In hard copy)	As per NIT
07	Date of opening of Tender	As per NIT
08	Place of opening of Tender	Conference Hall, I.G.I.M.S., Patna-14

Scheduled Items

Sl.No.	Item	Unit	Qty	Rate
1	Wiring for circuit/sub-main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required			
a)	2 x 2.5 sq.mm. + 1 x 2.5 sq.mm. earth wire	Meter	200.00	161.00
b)	2 x 4 sq.mm. + 1 x 4 sq.mm. earth wire	Meter	40.00	200.00
c)	4 x 10 sq.mm. + 1 x 10 sq.mm. earth wire	Meter	30.00	593.00
2	Supplying and fixing following way, horizontal type three pole & neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus - bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)			
a)	4 way (4 + 12), double door, horizontal type	each	1.00	2388.00
3	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
a)	6/32 Amps Single Pole	each	12.00	192.00
c)	50/63 amps, Tripole pole and neutral	each	1.00	1635.00
4	Supplying and fixing TPN sheet steel enclosure on surface/recess along with 63amps 415volts, "C"curve TPN MCB complete with connections, testing and commissioning etc. as required.	each	1.00	1919.00
5	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required			
a)	3½ X 50 sq. mm (35mm)	each	2.00	329.00
6	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of			

	following size on wall surface as required			
a)	Above 35 sq. mm and upto 95 sq. mm (Clamped with 25 x 3 mm MS flat clamp)	Meter	60.00	68.00
7	Supply of 3.5 core 50 sq mm XLPE/PVC insulated PVC sheathed (heavy duty) armored electrical cable with aluminium	Meter	60.00	277.22

Quoted Rate –

A. _____% above.

B. _____% below.

C At estimated Cost.

Note: - Contractors are required to quote their rate % above % below or at estimated cost, in prescribed Format. Tenderer quoting item-wise rate will be rejected.

01. Issued to – Name of Contractor -

02. **Full Address**

03. **E.M.D. Details** D.D. No.....Date.....Amount.....

04. **Registration Number** -

05. **Time of Completion**

Signature of Contractor with Date

**Electrical Executive Engineer
I.G.I.M.S., Patna-14**

Non-Schedule-Items

SI No.	Items	Unit	Qty	Rate
8	.Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating ,having all hermetically sealed inverter type Scroll Compressor(s),minimum two compressors for above 14HP modules, microprocessor based Controller ,top discharge type condensing unit(s),with R410A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRIC conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V+/-10%, 3Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5	HP	20.00	
9	Supply, installation, testing and commissioning of following minimum capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cordless remote control, drain pan, necessary accessories etc., suitable for operation on 230V±10%, 50Hz, single phase AC supply ,complete as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27Degree C DB and 19 Degree C WB temperature.			
a)	2TR	each	8.00	
10	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required.			
a)	9 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	150.00	
b)	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	100.00	

c)	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	50.00	
d)	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	30.00	
e)	28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	each	30.00	
11	Supply, installation, testing & commissioning of control cum transmission wiring of 2 core x 1.5 Sq mm copper in suitable PVC conduits for interconnection between IDUs & ODUs.	Meter	220.00	
12	Rigid PVC drain pipe with fitting proper support at 5 feet interval and insulated with 6 mm thick closed cell nitrile rubber insulation			
a)	25 mm dia	Meter	40.00	
13	Topping up of additional Refrigerant (R-410A)	Kg	36.00	

NOTE-Tenderer are requested to quote their rates against above (NSI) item.

Signature of Contractor with Date

**Electrical Executive Engineer
IGIMS, Patna**