

## NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

Langol Campus, .Ph. (0385) 2445812 / email:- nitmn@nitmanipur.ac.in
An Autonomous Institute under MHRD, Govt. of India.

#### **INVITATION LETTER**

Package Code: TEQIP-III/nitm/IOC/08 Current Date: 11-12 -2019
Package Name: NITMN/Electrification of Electrical Lab Method: Shopping\_IOC

To,

Sub: INVITATION LETTER FOR: Electrification of Electrical Lab

Dear Sir.

- 1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I, Annexure II, Annexure IV & Annexure V.
- 2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the Technical Education Quality Improvement Programme [TEQIP]-Phase III Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

#### 3. Quotation

- 3.1 The contract shall be for the full quantity as described above.
- 3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.
- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.Each bidder shall submit only one quotation
- 4. Pre-bid meeting will be held on 6-Jan-2020 at 11:00 AM in Conference Hall, NIT Manipur.



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- Quotation shall remain valid for a period not less than 30 days after the last date of quotation submission.
- **6.** Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
  - 6.1 are properly signed; and
  - 6.2 Confirm to the terms and conditions, and specifications.
- **7.** The Quotations would be evaluated for all items together.
- 8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
  - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.
  - 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.
- **9.** Payment shall be made in Indian Rupees as follows:

#### Delivery and Satisfactory Acceptance - 100% of total cost

- **10.** Liquidated Damages will be applied as per the below:
  - Liquidated Damages Per Day Min %: 0.01
  - Liquidated Damages Max %: 10
- 11. All supplied items are under warranty of months from the date of successful acceptance of items and AMC/Others is .
- 12. You are requested to provide your offer latest by 16:00 hours on 10-Jan-2020.
- **13.** Detailed specifications of the items are at Annexure I to V.
- **14.** Training Clause (if any)



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- **15.** Testing/Installation Clause (if any)
- **16.** Performance Security shall be applicable: %
- 17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
- 18. Sealed quotation to be submitted/ delivered at the address mentioned below, National Institute of Technology, Manipur, Langol, Imphal West 795004
  - 19. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation



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#### **Computer Simulation Lab**

#### Annexure I

Item No.	Description	Quantity	Unit
1	Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.		
	1. Group - A	10	pts.
	2. Group - B	10	pts.
	3. Group - C	9	pts.
2	Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	78	pts.
	Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.		
3	$2 \times 1.5 \text{ mm}^2 + 1 \times 1.5 \text{ mm}^2$ earth wire	90	Mtr.
	$2 \times 2.5 \text{ mm}^2 + 1 \times 2.5 \text{ mm}^2$ earth wire	45	Mtr.
	$2 \times 4 \text{ mm}^2 + 1 \times 4 \text{ mm}^2$ earth wire	30	Mtr.
	$2 \times 6 \text{ mm}^2 + 1 \times 6 \text{ mm}^2$ earth wire	15	Mtr.
4	S/F Metal box of 150 x 75 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 3 pin 5/6 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd. (for light plugs to use in non-residential building).	37	each
5	S/F Metal box of 180 x 100 x 60 mm (N/S) on surface or in recessed with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 and 15/16 amp socket outlet and 15/16 amp piano switch, connection painting etc. as reqd.	41	each
6	S/F 48" sweep (1200 mm) A.C. ceiling fan complete with down rod, canopy, 3 (three) blades but without regular etc as reqd. (Make Bajaj / Usha or similar)	12	each
8	Supplying & Fixing stepped type electronic fan regulator on the existing modular plate switch box 1/c connection but excluding modular plate etc. as reqd.	12	each
9	S/F surface/pendent mounting FL 1 x 36/40 W box type lamp channel luminaries complete with choke, starter and bulb i/c connection etc. as reqd.	17	each
10	S/F 1.5 tone capacity split type Air conditioner, (Diamond, 3 star, 5G 29, G -SC 18 FD 3 WJH) complete with Indo voltage stabilizer, Automatic 4 KVA( 140-280 for 1.5 ton)	3	



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#### (Electrical Machine & Drive Lab)

#### Annexure II

Description	Quantity	Unit
Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.		
1. Group - A	12	pts.
2. Group - B	12	pts.
3. Group - C	10	pts.
Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	32	pts.
Wiring for light point/power plug with 4 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	11	pts.
Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.  2 x 1.5 mm <sup>2</sup> + 1 x 1.5 mm <sup>2</sup> earth wire	90	Mtu
		Mtr.
		Mtr.
		Mtr.
2 x 6 mm <sup>2</sup> + 1x 6 mm <sup>2</sup> earth wire	20	Mtr.
S/F Metal box of 150 x 75 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 3 pin 5/6 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd. (for light plugs to use in non-residential building).	10	each
S/F Metal box of 180 x 100 x 60 mm (N/S) on surface or in recessed with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 and 15/16 amp socket outlet and 15/16 amp piano switch, connection painting etc. as reqd.	22	each
S/F 20 Amp . 240 V TPN industrial type socket outlet with four pole and earth metal enclosure plug top along with 10 Amp. "C"series TP MCB in sheet steel enclosure on surface or in recessed with chain metal cover for the socket outlet and complete with connection testing and commissioning etc as required.	2	each
S/F brass batten/angle holder i/c connection etc. as reqd.	6	each
S/F 48" sweep (1200 mm) A.C. ceiling fan complete with down rod, canopy, 3 (three) blades but without regular etc as reqd. (Make Bajaj / Usha or similar)	10	each
	Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.  1. Group - A  2. Group - B  3. Group - C  Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.  Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.  2 x 1.5 mm² + 1 x 1.5 mm² earth wire  2 x 2.5 mm² + 1 x 2.5 mm² earth wire  2 x 4 mm² + 1 x 4 mm² earth wire  2 x 6 mm² + 1 x 6 mm² earth wire  S/F Metal box of 150 x 75 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd.  (for light plugs to use in non-residential building).  S/F Metal box of 180 x 100 x 60 mm (N/S) on surface or in recessed with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 and 15/16 amp socket outlet and 15/16 amp piano switch, connection painting etc. as reqd.  S/F 20 Amp . 240 V TPN industrial type socket outlet with four pole and earth metal enclosure plug top along with 10 Amp. "C"series TP MCB in sheet steel enclosure on surface or in recessed with chain metal cover for the socket outlet and complete with connection testing and commissioning etc as required.  S/F br	Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.  1. Group - A  2. Group - B  3. Group - C  Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.  Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.  2 x 1.5 mm² + 1 x 1.5 mm² earth wire  2 x 2 x 5 mm² + 1 x 1.5 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  2 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  2 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 6 mm² + 1 x 6 mm² earth wire  3 x 7 5 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 3 pin 5/6 and 15/16 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd.  5 x F 20 Amp . 240 V TPN industrial type socket outlet with four pole and earth metal enclosure plug top along with 10 Amp. "C"series TP MCB in sheet steel enclosure on surface or in recessed with chain metal cover for the socket outlet and complete with connection testing and commissioning etc as required



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10	Supplying & Fixing stepped type electronic fan regulator on the existing modular plate switch box l/c connection but excluding modular plate etc. as reqd.	10	each
11	S/F surface/pendent mounting FL 1 x 36/40 W box type lamp channel luminaries complete with choke, starter and bulb i/c connection etc. as reqd.	14	each
12	S/F 15 W CFL lamp	6	each
13	S/F (following way) single/double pole and neutral, sheet steel MCCB distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc. as reqd. (but without MCB/RCCB/Isolator).		
	8 way single door	6	each
14	Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.		
	Single pole and neutral	32	each
	Triple pole and neutral	11	each
15	S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.	6	each
16	S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.		
	63 amp.	6	each
17	Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.	1	set
18	Extra for using salt and charcoal for pipe earth electrode as reqd.	1	set.
19	P/L earth connection from earth electrode with 4 mm dia copper wire in 15 mm dia G.I. pipe as reqd.	15	Mtrs.
20	P/F 200Amp. TPN stand ground on load change over switch (Compact design) 415/500 V including connection etc as reqd.	1	No.
21	S/F Bus bar chamber with 4 strips copper bus bar of length 600 mm suitable for 200 Amp capacities complete with all accessories i/c connection earthing body etc as reqd.	1	No.



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11	S/F (following way) single/double pole and neutral, sheet steel MCCB distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc. as reqd. (but without MCB/RCCB/Isolator).		
	8 way single door	8	each
12	Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.		
	Single pole and neutral	64	each
13	S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.	8	each
14	S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.		
	63 amp.	8	each
15	Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.	1	set
16	Extra for using salt and charcoal for pipe earth electrode as reqd.	1	set.
17	P/L earth connection from earth electrode with 4 mm dia copper wire in 15 mm dia G.I. pipe as reqd.	15	Mtrs.
18	100 amp/63 amp 500 V procelain fuse unit (kit-kat).	1	No.



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#### Power System& Smart Grid

#### Annexure III

Item No.	Description	Quantity	Unit
1	Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.		
	1. Group - A	5	pts.
	2. Group - B	5	pts.
	3. Group - C	5	pts.
2	Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	23	pts.
3	Wiring for light point/power plug with 4 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	10	pts.
	Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.		
4	$2 \times 1.5 \text{ mm}^2 + 1 \times 1.5 \text{ mm}^2 \text{ earth wire}$	80	Mtr.
	$2 \times 2.5 \text{ mm}^2 + 1 \times 2.5 \text{ mm}^2 \text{ earth wire}$	40	Mtr.
	$2 \times 4 \text{ mm}^2 + 1 \times 4 \text{ mm}^2$ earth wire	30	Mtr.
	$2 \times 6 \text{ mm}^2 + 1 \times 6 \text{ mm}^2$ earth wire	20	Mtr.
5	S/F Metal box of 150 x 75 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 3 pin 5/6 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd. (for light plugs to use in non-residential building).	10	each
6	S/F Metal box of 180 x 100 x 60 mm (N/S) on surface or in recessed with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 and 15/16 amp socket outlet and 15/16 amp piano switch, connection painting etc. as reqd.	13	each
7	S/F 20 Amp . 240 V TPN industrial type socket outlet with four pole and earth metal enclosure plug top along with 10 Amp. "C"series TP MCB in sheet steel enclosure on surface or in recessed with chain metal cover for the socket outlet and complete with connection testing and commissioning etc as required.	10	each
8	S/F 48" sweep (1200 mm) A.C. ceiling fan complete with down rod, canopy, 3 (three) blades but without regular etc as reqd. (Make Bajaj / Usha or similar)	6	each



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9	Supplying & Fixing stepped type electronic fan regulator on the existing modular plate switch box l/c connection but excluding modular plate etc. as reqd.	6	each
10	S/F surface/pendent mounting FL 1 x 36/40 W box type lamp channel luminaries complete with choke, starter and bulb i/c connection etc. as reqd.	9	each
11	S/F (following way) single/double pole and neutral, sheet steel MCCB distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc. as reqd. (but without MCB/RCCB/Isolator).		
	8 way single door	4	each
12	Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.		
	Single pole and neutral	20	each
	Triple pole and neutral	10	each
13	S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.	4	each
14	S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.		
	63 amp.	4	each
15	Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.		set
16	Extra for using salt and charcoal for pipe earth electrode as reqd.	1	set.
17	P/L earth connection from earth electrode with 4 mm dia copper wire in 15 mm dia G.I. pipe as reqd.		Mtrs.
18	P/F 200Amp. TPN stand ground on load change over switch (Compact design) 415/500 V including connection etc as reqd.		No.
19	S/F Bus bar chamber with 4 strips copper bus bar of length 600 mm suitable for 200 Amp capacities complete with all accessories i/c connection earthing body etc as reqd.	1	No.



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#### Renewable Energy Lab

#### Annexure IV

Item No.	Description	Quantity	Unit
1	Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.		
	1. Group - A	6	pts.
	2. Group - B	6	pts.
	3. Group - C	6	pts.
2	Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	19	pts.
3	Wiring for light point/power plug with 4 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	2	pts.
	Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.		
4	$2 \times 1.5 \text{ mm}^2 + 1 \times 1.5 \text{ mm}^2$ earth wire	80	Mtr.
"	$2 \times 2.5 \text{ mm}^2 + 1 \times 2.5 \text{ mm}^2$ earth wire	40	Mtr.
	$2 \times 4 \text{ mm}^2 + 1 \times 4 \text{ mm}^2$ earth wire	30	Mtr.
	$2 \times 6 \text{ mm}^2 + 1 \times 6 \text{ mm}^2$ earth wire	20	Mtr.
5	S/F Metal box of 150 x 75 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 3 pin 5/6 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd. (for light plugs to use in non-residential building).	7	each
6	S/F Metal box of 180 x 100 x 60 mm (N/S) on surface or in recessed with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 and 15/16 amp socket outlet and 15/16 amp piano switch, connection painting etc. as reqd.	12	each
7	S/F 20 Amp . 240 V TPN industrial type socket outlet with four pole and earth metal enclosure plug top along with 10 Amp. "C"series TP MCB in sheet steel enclosure on surface or in recessed with chain metal cover for the socket outlet and complete with connection testing and commissioning etc as required.	2	each
8	S/F 48" sweep (1200 mm) A.C. ceiling fan complete with down rod, canopy, 3 (three) blades but without regular etc as reqd. (Make Bajaj / Usha or similar)	6	each



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9	Supplying & Fixing stepped type electronic fan regulator on the existing modular plate switch box l/c connection but excluding modular plate etc. as reqd.	6	each
10	S/F surface/pendent mounting FL 1 x 36/40 W box type lamp channel luminaries complete with choke, starter and bulb i/c connection etc. as reqd.	12	each
11	S/F (following way) single/double pole and neutral, sheet steel MCCB distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc. as reqd. (but without MCB/RCCB/Isolator).		
	8 way single door	3	each
12	Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.		
	Single pole and neutral	19	each
	Triple pole and neutral	2	each
13	S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.	3	each
14	S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.		
	63 amp.	3	each
15	Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.	1	set
16	Extra for using salt and charcoal for pipe earth electrode as reqd.	1	set.
17	P/L earth connection from earth electrode with 4 mm dia copper wire in 15 mm dia G.I. pipe as reqd.	15	Mtrs.
18	P/F 200Amp. TPN stand ground on load change over switch (Compact design) 415/500 V including connection etc as reqd.	0	No.
19	S/F Bus bar chamber with 4 strips copper bus bar of length 600 mm suitable for 200 Amp capacities complete with all accessories i/c connection earthing body etc as reqd.	0	No.



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	Advance Control Lab		Annexure V
Item No.	Description	Quantity	Unit
1	Wiring for light point/Fan point/Exhaust Fan point/Call bell point with 1.5 mm 2 PVC insulated copper conductor single core cable in PVC insulated casing copper with piano type switch phenolic laminated sheet suitable size MS-box and earthing the point with 1.5 mm2 PVC insulated copper conductor single core cable etc. as reqd.		
	1. Group - A	7	pts.
	2. Group - B	7	pts.
	3. Group - C	8	pts.
2	Wiring for light point/power plug with 2 x 4 mm2 PVC insulated copper conductor single core cable in PVC casing and capping along with 1 no. 4 mm2 PVC insulated copper conductor single core cable for loop earthing etc. as reqd.	18	pts.
	Wiring for circuit/sub-main wiring along with earth wire with (the following sizes of) PVC insulated copper conductor single core cable in PVC casing and capping etc. as reqd.		
3	$2 \times 1.5 \text{ mm}^2 + 1 \times 1.5 \text{ mm}^2 \text{ earth wire}$	90	Mtr.
	$2 \times 2.5 \text{ mm}^2 + 1 \times 2.5 \text{ mm}^2$ earth wire	45	Mtr.
	$2 \times 4 \text{ mm}^2 + 1 \times 4 \text{ mm}^2$ earth wire	10	Mtr.
	2 x 6 mm <sup>2</sup> + 1x 6 mm <sup>2</sup> earth wire	10	Mtr.
4	S/F Metal box of 150 x 75 x 60 mm (N/S) on surface or in recess with suitable size of phenolic laminated sheet cover in front i/c P/F 3 pin 5/6 amp socket outlet and 5/6 amp piano switch, connection painting etc. as reqd. (for light plugs to use in non-residential building).	9	each
5	S/F Metal box of 180 x 100 x 60 mm (N/S) on surface or in recessed with suitable size of phenolic laminated sheet cover in front i/c P/F 6 pin 5/6 and 15/16 amp socket outlet and 15/16 amp piano switch, connection painting etc. as reqd.	9	each
6	S/F brass batten/angle holder i/c connection etc. as reqd.	2	each
7	S/F 48" sweep (1200 mm) A.C. ceiling fan complete with down rod, canopy, 3 (three) blades but without regular etc as reqd. (Make Bajaj / Usha or similar)	6	each
8	Supplying & Fixing stepped type electronic fan regulator on the existing modular plate switch box l/c connection but excluding modular plate etc. as reqd.	6	each
9	S/F surface/pendent mounting FL 1 x 36/40 W box type lamp channel luminaries complete with choke, starter and bulb i/c connection etc. as reqd.	14	each
10	S/F I5 W CFL lamp	2	each



## NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR

S/F 1.5 tone capacity split type Air conditioner, (Diamond, 3 star, 5G 29, G-SC 18 FD 3 WJH) complete with Indo voltage stabilizer, Automatic 4 KVA (140-280 for 1.5 ton)  S/F (following way) single/double pole and neutral, sheet steel MCCB distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc. as reqd. (but without MCB/RCCB/Isolator).  8 way single door  Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.  Single pole and neutral  17 cach  S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  S/F (following masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.  15 Mtrs.  15 Mtrs.  19 100 amp/63 amp 500 V procelain fuse unit (kit-kat).				
distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc. as reqd. (but without MCB/RCCB/Isolator).  8 way single door  Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.  Single pole and neutral  17 each  S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  63 amp.  1 each  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.	11	G -SC 18 FD 3 WJH) complete with Indo voltage stabilizer, Automatic 4	3	
Supplying and fixing 5 amp to 32 amp rating 230 V B series MCB for lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.  Single pole and neutral  S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  Extra for using salt and charcoal for pipe earth electrode as reqd.  P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.	12	distribution board, 240 V on surface/recessed complete with tinned copper but bas neutral bus bar, earth bar, din bar, detachable gland plate interconnection, phosphatized and powder painted including earthing etc.		
lighting and other load for (following poles) in the existing MCB DB complete with connection testing and commissioning etc. as reqd.  Single pole and neutral 17 each  S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  63 amp. 1 each  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd. 1 set.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.		8 way single door	3	each
S/F single pole blanking plate in the existing MCB DB complete etc. as reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  63 amp.  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17  Extra for using salt and charcoal for pipe earth electrode as reqd.  18  P/L earth connection from earth electrode with 4 mm dia copper wire in 15 mm dia G.I. pipe as reqd.	13	lighting and other load for (following poles) in the existing MCB DB		
reqd.  S/F (following rating) double pole 240 V isolator in the existing MCB DB complete with connection, testing and commissioning as reqd.  63 amp.  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.		Single pole and neutral	17	each
15 complete with connection, testing and commissioning as reqd.  63 amp.  1 each  Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.	14		3	each
Earthing with G.I. earth pipe 4.5 m long 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.	15			
providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) as reqd.  17 Extra for using salt and charcoal for pipe earth electrode as reqd.  18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.			1	each
18 P/L earth connection from earth electrode with 4 mm dia copper wire in 15 Mtrs.  15 mm dia G.I. pipe as reqd.	16	providing masonary enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt)	1	set
15 mm dia G.I. pipe as reqd.	17	Extra for using salt and charcoal for pipe earth electrode as regd.	1	set.
19 100 amp/63 amp 500 V procelain fuse unit (kit-kat).	18		15	Mtrs.
	19	100 amp/63 amp 500 V procelain fuse unit (kit-kat).	1	No.



# राष्ट्रीय प्रौद्योगिकी संस्थान,मणिपुर NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR Langol Campus, .Ph. (0385) 2445812 / email:- nitmn@nitmanipur.ac.in An Autonomous Institute under MHRD, Govt. of India.

# FORMAT FOR QUOTATION SUBMISSION (In letterhead of the supplier with seal)

Date: To:			_				
SI. No.	Description of goods \ (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and c	other taxes payable In figures (B)
			Total C	ost			
(Rupees We confiterms and We here!  Signature Name:	an- rm that the normal of d conditions as ment	comme comme ioned i e take	n words rcial wa n the In	cordance with the technical specification  within the period specified in the Invital interest of the Invital interest of the Invital interest of the Invitation Letter. In the Invitation Letter is a consure that no person acting for us on the Invitation Interest of Invitatio	ition for Quotations. nonths shall apply	to the offered items and w	