## **ELECTRICAL TECHNICIAN**

(701-702)

The institution having the following requisite infrastructure, may apply for accreditation:

#### A. Class Room:

Class room for 20 students (minimum area 225 sq. ft.) should have proper ventilation, well-illuminated black board/white board and availability of adequate furniture and ceiling fans

### B. Workshop:

The size of workshop for 20 students should be at least 25ft. x 20 ft. with adequate lighting, exhaust and ceiling fans. The workshop should have the following Tool/Equipments/Apparatus or material for Practical Training:

#### LIST OF TOOLS

| Sl.<br>No | Tools   | Quantity | S1.<br>No | Tools  | Quantity |
|-----------|---|----------|-----------|--|----------|
| 1.        | Plier insulated 150mm                           | 5-10 set | 19.       | Drill S.S. Twist 3mm, 5mm, 6mm                 | 5-10 set |
| 2.        | Screw Driver 150mm                              | 5-10 set | 20.       | File (flat) 200mm 2 <sup>nd</sup> cut          | 5-10 set |
| 3.        | Electrician Knife                               | 5-10 set | 21.       | File (round) 200mm 2 <sup>nd</sup> cut         | 5-10 set |
| 4.        | Neon Tester                                     | 5-10 set | 22.       | File (half round) 200mm<br>2 <sup>nd</sup> cut | 5-10 set |
| 5.        | Electrician connector screw driver              | 5-10 set | 23.       | Soldering Iron 125 watts                       | 5-10 set |
| 6.        | Heavy duty screw driver 200mm                   | 5-10 set | 24.       | Soldering Iron 65 watts                        | 5-10 set |
| 7.        | Electrician screw driver 250mm                  | 5-10 set | 25.       | Bench Vice 100mm Jaw                           | 5-10 set |
| 8.        | Saw Tenon 250mm                                 | 5-10 set | 26.       | Hacksaw plug tool set 8 to 4 No.               | 5-10 set |
| 9.        | Firmer Chisel 12mm                              | 5-10 set | 27.       | Rawal Plug tool set 8 to 4 No.                 | 5-10 set |
| 10.       | Pocker  | 5-10 set | 28.       | Cold chisel 12mm x<br>200mm flat               | 5-10 set |
| 11.       | Plier flat Nose 150mm                           | 5-10 set | 29.       | Hand drill machine 0 to 6 mm capacity          | 5-10 set |
| 12.       | Centre Punch 150mm x 9mm                        | 5-10 set | 30.       | Tri square 150mm                               | 5-10 set |
| 13.       | Electric drill machine (portable) 12mm capacity | 5-10 set | 31.       | Pipe vice 50mm                                 | 5-10 set |

Created with



| 14. | Oil Cane 0.12 litre  | 5-10 set | 32. | Pipe wrench 0-50mm                  | 5-10 set |
|-----|----------------------|----------|-----|-------------------------------------|----------|
| 15. | Grease Gun (small)   | 5-10 set | 33. | Ball pin hammer 100gm, 500gm & 1kg. | 5-10 set |
| 16. | Standard wire gauge  | 5-10 set | 34. | Hand drill machine                  | 5-10 set |
| 17. | Barring Puller       | 5-10 set | 35. | Micrometer 0-100mm                  | 5-10 set |
| 18. | Scissors 150mm blade | 5-10 set |     |                                     |          |

# C. List of Instruments And Equipment

| Sl.<br>No | Instruments & Equipment  | Qty. | Sl.<br>No | Instruments & Equipment                                   | Qty. |
|-----------|--|------|-----------|---|------|
| 1.        | Ammeter 0-1, 0-3, 0-5, 0-10 & 0-   | 2    | 20.       | A.C. Cooler pump motor                                    | 1    |
|           | 30amps   | each | 21.       | A.C. Mixer motor  | 1    |
| 2.        | Voltmeter 0-600 VMI & Voltmeter 0-500 V M C                              | 1+1  | 22.       | A.C. Monoblock pump 2800 R.P.M. ½ H.P./One H.P.           | 1    |
|           |  |      | 23.       | Hair Drier  | 1    |
| 3.        | Megger (Insulation tester) 500 V   | 1    | 24.       | O.T.G - One   | 1    |
| 4.        | Multimeter (digital)   | 1    |           | Charge over switch (Manual)                               | 1    |
| 5.        | Heater-ordinary one K.W. & Room Heater Rod Type one K.W.                 | 2+2  |           | Charge over switch (Automatic)                            | 1    |
|           |  |      | 25.       | Installation inverter                                     | 1    |
| 6.        | Electric Iron (Automatic with opne element) 220V-750 watts               | 2    | 26.       | Washing machine (Manual)                                  | 1    |
| 7.        | Electric Iron steam 220V-1000 watts                                      | 2    | 27.       | Generator   | 1    |
| 8.        | Electric toaster (ordinary)  | 2    | 28.       | Alternator  | 1    |
| 9.        | Geyser (storage)2KW  | 1    | 29.       | Clip on Meter Digital 0-200Amp.                           | 1    |
| 10.       | Kettle ordinary 500 watts  | 1+1  | 30.       | Water Meter Single phase                                  | 1    |
|           | Kettle automatic 1000 watts  |      |           | 1KW- 220V   |      |
| 11.       | Heat Convector 220 volts 1000 watts                                      | 1+1  | 31.       | Single Phase energy meter (K.W.H.) 5-10Amp. 220V          | 1    |
| 12.       | Voltage stabilizer –Automatic 1440 R.P. Single phase transformer step up | 4    | 32.       | Three phase energy meter (3phase 4 wire) 10-20 Amp. 440 V | 1    |
|           | Single phase transformer step down                                       |      |           |   |      |
|           | Three phase transformer step up  |      |           |   |      |
|           | Three phase transformer step down  |      |           |   |      |
| 13.       | A.C. three phase sq. cage 24 slots pole motor                            | 1    | 33.       | Frequency meter 0-60 Hz.                                  | 1    |
| 14.       | A.C. Three phase sq. cage 36 slots pole motor                            | 1    | 34.       | Double Element Hot Plate                                  | 1    |

nitro PPF professional download PPF professional at ni professional pr

| 15. | A.C. Single phase capacitor type     | 1 | 35. | Micro meter 0-50 mm            | 1 |
|-----|--------------------------------------|---|-----|--------------------------------|---|
|     | motor                                |   |     |                                |   |
| 16. | A.C. Universal (Series) motor single | 1 | 36. | 3 phase DOL starter 440V -     | 1 |
|     | phase                                |   |     | 20Amp.                         |   |
| 17. | A.C. Ceiling fan motor               | 1 | 37. | D.C. 3 point starter 220V, 0-  | 1 |
|     |                                      |   |     | 20Amp.                         |   |
| 18. | A.C. Table fan motor                 | 1 | 38. | D.C. 4 point starter 220 V, 0- | 1 |
|     |                                      |   |     | 20amp.                         |   |
| 19. | A.C. Cooler motor                    | 1 | 29. | Winding Demonstration board    | 1 |
|     |                                      |   |     | of 24 slots/36 slots 4 pole/6  |   |
|     |                                      |   |     | pole                           |   |

- **D. Physical Facilities**: The institution should have the facilities for Drinking water, Bathrooms & Toilets
- **E. Library**: Library should have a minimum 20 books/articles/magazines etc. in related subject.

## F. Faculty & Supporting Staff:

| Faculty & Supporting Staff | Educational/Professional Qualification               | No. |
|----------------------------|--|-----|
| Coordinator                | Degree/Diploma in appropriate branch with 5          | 01  |
|                            | years experience                                     |     |
| Instructor                 | Diploma in electrical engineering of ITI Certificate | 01  |
|                            | in electrical trade with 2 yrs. Experience           |     |
| Receptionist cum clerk     | Relevant to job                                      | 01  |
| Assistant                  | Relevant to job                                      | 01  |

**G. Batch size -** Maximum 20 students in one batch.

**Note:** An institution can run maximum 2 batches for this course.

