

**4464**

**BOARD DIPLOMA EXAMINATION, (C-14)**  
**JUNE-2019**  
**DEEE - FOURTH SEMESTER EXAMINATION**  
**ELECTRICAL INSTALLATION & ESTIMATION**

Time: 3Hours

Max.Marks: 80

**PART-A****10x3=30M**

**Instructions:** 1) Answer all the questions. Each question carries 3 Marks  
2) Answer should be brief & straight to the point and shall not exceed five simple sentences.

- 1) What are the different types of lamp holders.
- 2) State the reasons for fire accidents in electrical system.
- 3) List out any six wiring accessories.
- 4) State different domestic wiring systems.
- 5) State six different types of starters used for different motors.
- 6) Draw the wiring diagram of panel board (switch board) for irrigation pump set installation.
- 7) Write a short notes on selection of insulators for a distribution line.
- 8) Classify the earthing along with applications.
- 9) State any three IE rules on industrial safety.
- 10) State different types of loads come across while doing load survey of village electrification.

## PART - B

10x5=50M

**Instructions:** 1) Answer any five questions. Each question carries 10marks  
2) Answer should be comprehensive and the criteria for valuation is the content but not length of the Answer.

- 11) Explain the procedure to be adopted for shock treatment to an electrocuted person.
- 12) A work shop measures 15mx25m with 3.5m height, is to be provided with one 10H.P. motor and another 5H.P motor. Draw wiring diagram and estimate the materials required.
- 13) Prepare the quantity of materials required for installation of an agricultural pump set rated 5.5 kW, 3-phase and 400V squirrel-cage induction motor. The distance between the L.T pole and pump set shed (5mX3mX3m) is 10 meters. Assume any missing data.
- 14) Estimate the quantity of materials required for a room of 6mx5mx3.5m which is to be wired from 1-phase supply and is provided with 2 lamps (60W) one fan (80W) two 5 A sockets (100W) and 1 power socket 15A (1000W).
- 15) A 11 kV line is to be erected to give supply to village 2 Km from existing 11 kV line. Prepare a schedule of materials required for the line. Assume an average span of 50 m and 2 cut points in the line.
- 16) Draw a neat sketch of a 100 kVA, 11 kV/400 V, 3-phase pole mounted sub station and estimate the materials required for the erection of above sub-station.
- 17) Explain the plate earthing with neat sketch.
- 18) Describe the following tests with neat sketch.
  - a) Continuity of wiring in an electrical installation.
  - b) Insulation resistance between conductors.

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