

C14-EE-506

4641

BOARD DIPLOMA EXAMINATION, (C-14) SEPTEMBER/OCTOBER - 2020 DEEE—FIFTH SEMESTER EXAMINATION

MAINTENANCE OF ELECTRICAL EQUIPMENTS

Time: 3 hours [Total Marks: 80

PART-A

 $3 \times 10 = 30$

Instructions: (1) Answer **all** questions.

- (2) Each question carries three marks.
- (3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.
- 1. Draw the electrical wiring diagram of water heater.
- 2. List the tools required to repair domestic appliances.
- **3.** State the working principle of electric kettle.
- **4.** List the storage batteries used in UPS.
- **5.** Give the preventive maintenance schedule of Induction motor.
- **6.** Give the periodical maintenance schedule of Wet batteries.
- **7.** Give the preventive maintenance of inverter.

- **8.** List the equipment used for general safety purpose.
- **9.** List the Dont's of electrical supervisor at substations.
- **10.** State the need of safety.

PART—B

 $10 \times 5 = 50$

Instructions: (1) Answer any five questions.

- (2) Each question carries ten marks.
- (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- 11. List the steps involved in dismantling and assembling of geyser.
- 12. Give the testing procedure for automatic electric iron.
- **13.** (a) Explain the working of an off-line UPS with block diagram. 5
 - (b) Draw the circuit of SMPS using SMPS IC (TL497). 5
- **14.** Give the preventive and periodical maintenance schedule of the air blast circuit breaker.
- **15.** Give the preventive and periodical maintenance schedule of the AC motors.
- **16.** Give the preventive and periodical maintenance schedule of the batteries dry.
- **17.** Explain the causes of different electrical hazards/accidents.
- **18.** Explain the first-aid methods followed to rescue a person met with electric shock.

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