C14-EC-602

4736

BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2021

DECE - SIXTH SEMESTER EXAMINATION

INDUSTRIAL ELECTRONICS

Time: 3 hours [Total Marks: 80

PART-A

 $4 \times 5 = 20$

Instructions:

- (1) Answer any five questions.
- (2) Each question carries **four** marks.
- (3) Answers should be brief and straight to the point and shall not exceed five simple sentences.
- **1.** Draw the circuit symbols of triac and diac.
- 2. List the applications of SMPS.
- 3. Classify the transducers on the basis of principle of operation.
- **4.** List the applications of tacho generators.
- 5. Classify industrial heating methods.
- **6.** List the applications of resistance welding.
- 7. Draw any two ladder network logic symbols.
- **8.** List types of PLCs.
- **9.** Classify control systems.
- **10.** Define Transfer function.

PART—B 15×4=60

Instructions: (1) Answer any four questions.

- (2) Each question carries fifteen marks.
- (3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.
- **11.** Explain the VI characteristics of SCR.
- 12. Draw the block diagram of offline UPS and explain.
- **13**. Explain the working of LVDT.
- **14**. Explain the working of strain gauge.
- **15.** Draw the circuit of HF power source for induction heating and explain.
- **16.** Explain the principle of induction heating.
- **17.** Explain the PLC scan method.
- **18.** Explain the basic block diagram of control system.

