



C14-EC-503

**4629**

**BOARD DIPLOMA EXAMINATION, (C-14)**

MARCH / APRIL - 2019

**DECE - V SEMESTER EXAMINATION**

**INDUSTRIAL ELECTRONICS**

Time : 3 Hours]

[Total Marks : 80

---

**PART - A**

**3×10=30**

**Instructions :**

- (1) Answer **ALL** questions.
- (2) Each question carries **THREE** marks.
- (3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 Draw the symbols used for (a) SBS (b) SCS (c) LASCR.
- 2 Write the differences between GTOSCR and SCR.
- 3 Define Gauge Factor of a Strain Gauge.
- 4 Mention the methods of generating ultrasonic waves.
- 5 List the applications of induction heating.
- 6 Classify industrial heating methods.
- 7 List the types of PLCs.
- 8 What are the major sections in a PLC unit ?
- 9 Define control system.
- 10 Give the three demerits of open loop control systems.

4629 ]

1

[ Contd...

**PART - B**

**10×5=50**

- Instructions :**
- (1) Answer any **FIVE** questions.
  - (2) Each question carries **TEN** marks.
  - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11 Explain the construction and working. Draw volt-ampere characteristics of TRIAC.
- 12 Explain the working of MOSFET based inverter circuit.
- 13 Explain the working principle and construction of Piezo electric transducer.
- 14 Explain the working principle of Thermocouple transducer.
- 15 Explain the circuit of AC resistive welding.
- 16 (a) Explain any two methods of coupling of electrodes of the RF generator.  
(b) Explain the control system flow chart.
- 17 Explain ladder diagram.
- 18 Explain closed loop control system with diagram.