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BOARD DIPLOMA EXAMINATION, (C–16)
OCT/NOV—2018
DECE—FIFTH 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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. State the principle of induction heating.

2. Mention the ratings of SCR.

3. Draw the symbol SCR, LASCR and SCS.

4. Give the classification of control systems.

5. State the need of PLC.

6. Explain Magnetostriction effect.

7. Define the term Ultrasonic.

8. State the need of inverters.

9. List the applications of UPS.

10. List the applications of dielectric heating.

PART–B

10×5=50

Instructions : (1) Answer *any* **five** questions.
(2) Each questions carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Explain construction and working of SCR.

12. Explain construction and working of UJT

13. Draw and explain Volt-Ampere characteristics of TRAIC under forward/reverse bias.

14. Explain PWM voltage control of inverter.

15. Explain the contruction and working of pulsed-echo ultrasonic flaw detector.

16. Explain the contruction, working principle and application of resistance strain gauge.

17. Give comparison between open loop and close loop control systems with examples.

18. Explain the basic circuit of AC resistance welding and explain its working.

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