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BOARD DIPLOMA EXAMINATION, (C-16)

JUNE/JULY—2022

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. Write any three differences between SCS and LASCR.

2. Define intrinsic stand-off ratio of UJT.

3. List any three applications of SMPS.

4. State the need of inverters.

5. Define magnetostriction effect.

6. List different resistive and capacitive transducers.

7. List different industrial heating methods.

8. Define welding.

9. State the need for industrial automation.

10. Define transfer function of control system.

PART—B 10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the construction and working of GTO SCR.

12. Explain the construction and working of DIAC and draw its VI characteristics.

13. Explain SCR triggering using UJT.

14. Draw and explain the block diagram of online UPS.

15. Explain the construction and working of LVDT.

16. Explain the construction and working of pulsed echo ultrasonic flaw detector.

17. Draw and explain the working of AC resistance welding system.

18. Explain the working of PLC system with a block diagram.

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