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C16-EC–505

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BOARD DIPLOMA EXAMINATION, (C-16)

AUGUST/SEPTEMBER—2021

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. Draw the circuit symbols of GTOSCR, SUS, and LASCR.

2. Define latching current of SCR.

3. What is the need of inverter?

4. Write any three applications of SMPS.

5. Define the term transducer.

6. Define magnetostriction effect.

7. Define welding.

8. Classify industrial heating methods.

9. Write any three merits of closed loop control system.

10. Write any three applications of PLCs in industry.

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 VI characteristics of SCR.

12. Explain construction and working of DIAC.

13. Explain about triggering of TRIAC in different modes.

14. Explain the working of SMPS with block diagram.

15. Explain the working principle, construction and applications of resistance strain gauge.

16. Explain the construction and working of LVDT.

17. *(a)* Explain the principle of induction heating. 7

(b) Write any three applications of induction heating. 3

18. Explain open loop system with the help of block diagram.

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