



C16-EC-505

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BOARD DIPLOMA EXAMINATION, (C-16)
JANUARY/FEBRUARY—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. Distinguish between SUS and SBS.
2. Write any three applications of SCR.
3. What is the need of Uninterrupted Power Supply?
4. List the applications of SMPS.
5. Define the term Ultrasonic.
6. What is Piezo-electric effect?
7. List the applications of dielectric heating.
8. Classify different types of Electrical welding.
9. List any three merits and demerits of open loop control system.
10. State the need for industrial automation.

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[Contd...

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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 GTOSCR.
12. Explain about speed control of DC motor using single phase full-wave SCR rectifier.
13. Explain the construction and working of UJT.
14. Explain the working of MOSFET based inverter circuit.
15. Explain the construction and working of LVDT.
16. Explain the construction and working of Pulsed-echo ultrasonic flaw detector.
17. Explain about HF power source for induction heating.
18. Explain the PLC system with block diagram.

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