



C09-EC-605

**3761**

**BOARD DIPLOMA EXAMINATION, (C-09)**

**MARCH/APRIL—2021**

**DEEE - SIXTH SEMESTER EXAMINATION**

**INDUSTRIAL ELECTRONICS**

*Time : 3 hours ]*

*[ Total Marks : 80*

**PART—A**

4×5=20

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

1. Draw the symbol of SCR and GTO.
2. Draw the block diagram of SMPS.
3. Draw the VI characteristics of SCR.
4. List the applications of chopper.
5. Classify converters.
6. Draw the diagram of single phase fully controlled converter with resistive load.
7. Classify inverters.
8. List the factors affecting the speed of AC motors.
9. Draw the diagram of single phase bridge inverter using MOSFET.
10. Classify the transducers.

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**PART—B**

15×4=60

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

11. Explain the VI characteristics of DIAC.
12. Draw and explain SCR circuit triggered by UJT.
13. Explain the working of single phase AC regulator.
14. Explain the working principle of chopper.
15. Explain the working of voltage source inverter.
16. Describe the speed control of DC shunt motor using converter.
17. Explain the principle of working of thermocouple.
18. Explain the working of LVDT.

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