



C09-EC-605

**3761**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCTOBER/NOVEMBER-2018  
DECE-SIXTH SEMESTER EXAMINATION**

INDUSTRIAL ELECTRONICS

Time : 3 Hours ]

[ Total Marks: 80

**PART-A**

3X10=30

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

1. List any 6 thyristor family devices?
2. Compare GTO SCR and SCR?
3. List the application of power electronic devices?
4. List the classification of converters?
5. What is the necessity of free wheeling diode?
6. List the application of AC regulators.
7. Classify the inverters based on the circuit configuration and switching element?
8. List out the applications of Inverters?
9. Mention the factors affecting speed of DC motors?
10. Define Gauge factor of a strain guage?

## PART-B

10X5=50

*Instructions* \*

1. Answer any **Five** questions
2. Each question carries **ten** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Draw and explain the V-I characteristics of (i) DIAC (ii) TRIAC under forward and reverse bias?
12. Draw and Explain SCR circuit triggered by UJT?
13. Explain the working of single phase fully controlled converter with (i) resistive load (ii) RL load.
14. Explain the working principle of DC choppers?
15. Draw and explain the working of voltage source Inverter.
16. Explain the speed control of 3-phase induction motor by using AC voltage controller?
17. Explain the working of the pulsed echo Ultrasonic Flaw detector?
18. Explain the working of the pulsed echo Ultrasonic Flaw detector.

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