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## BOARD DIPLOMA EXAMINATIONS

OCT/NOV-2019

DECE-FIFTH SEMESTER

INDUSTRIAL ELECTRONICS

Time:3 hours

Max. Marks: 80

## PART – A

3 X 10 = 30

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

1. Draw the V-I characteristics of DIAC.
2. Compare GTOSCR and SCR.
3. List the applications of inverters.
4. State the advantages of SMPS.
5. Classify electronic transducers based on principle of operation.
6. State the working principle of strain gauge.
7. List the applications of induction heating.
8. Classify Different Types of ELECTRICAL WELDING.
9. Define transfer function.
10. List the applications of PLCs.

**PART – B**

**10 X 5 = 50**

- Instructions:*
1. Answer any **Five** questions
  2. Each question carries **TEN** Marks.
  3. Answer should be comprehensive and Criteria for Valuation is the content but not the length of the answer.

11. Explain the construction and working of SCR with a sketch.
12. Draw and explain the V-I characteristics of TRIAC with its constructional details.
13. Explain the triggering of SCR using UJT with a diagram.
14. Explain the working of off-line UPS with a diagram.
15. Explain the construction and working of LVDT.
16. Explain the construction and working of Thermo-Couple Transducer.
17. a) Compare induction heating and dielectric heating. 4M  
b) Explain the principle of resistance welding with a sketch. 6M
18. Draw the Block diagram of Closed Loop System and Explain.