

4039**BOARD DIPLOMA EXAMINATION, (C-14)****MARCH/APRIL – 2019****DECE - FIRST YEAR EXAMINATION****ELECTRONIC ENGINEERING MATERIALS & PRACTICES****Time: 3 Hours]****[Max. Marks: 80**

PART-A**3x10=30M****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 six metals used in electrical or electronics industry.
2. Write any three differences between conductor and semiconductor.
3. List any three properties of PVC.
4. List the factors affecting the hysteresis loss.
5. Mention any three merits of silicone rubber.
6. Mention any three applications of riveting.
7. List different types of screw drivers used in electronic workshop.
8. Define brazing and soldfering.
9. What is the purpose of tempering?
10. Draw any three safety symbols used in electrical industry.

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PART-B

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5X10=50M

- Instructions:** 1) Answer any **five** questions.
2) Each question carries **ten** marks.
3) The answer should be comprehensive and the criteria for valuation is content but not the length of the answer.

- 11.** a) List the electrical properties of copper. 4M
b) Define corrosion and list any three methods to prevent corrosion of conductors. 6M
- 12.** a) Explain the factors affecting the insulating resistance. 5M
b) Write the electrical properties of insulating materials. 5M
- 13.** a) Explain the use of soft magnetic materials in transformers. 4M
b) Distinguish between soft and hard magnetic materials. 6M
- 14.** a) Explain the need of alloying. 6M
b) List the alloys used for bimetallic strips and fuse materials. 4M
- 15.** a) List various hand files used in electronic workshop. 5M
b) Classify adhesives. 5M
- * **16.** Explain the process of wave soldering. 10M
- 17.** a) What is the purpose of annealing? 4M
b) Explain the process of annealing. 6M
- 18.** Explain the causes of fire and fire accidents in industries. 10M

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