

4039

BOARD DIPLOMA EXAMINATION, (C-14) APRIL/MAY-2015

DECE—FIRST YEAR EXAMINATION

ELECTRONIC ENGINEERING MATERIALS AND PRACTICES

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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.** List any three methods to prevent the corrosion.
- 2. Write the difference between conductor and semiconductor.
- **3.** List any three uses of PVC in electrical applications.
- **4.** Define Curie point.
- **5.** List the alloys used for bimetallic strips and fuse material.

 $1\frac{1}{2}+1\frac{1}{2}$

- **6.** What are the demerits of adhesive?
- 7. Write the use of ball-peen hammer.
- **8.** Define brazing.

9. What is the purpose of tempering? 10. Draw any three safety symbols in electrical industry. PART—B $10 \times 5 = 50$ **Instructions**: (1) Answer any **five** questions. (2) Each question carries **ten** marks. (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer. 11. Explain the general properties of copper. **12.** (a) Explain the factors affecting the insulating resistance. 5 (b) Write the electrical properties of insulating materials. 5 **13.** Explain the hysteresis and hysteresis losses. **14.** Define ferrites and write the important properties of ferrites. **15.** Explain the process of riveting. **16.** Explain the process of soft soldering. **17.** Explain the process of annealing and normalization. 5+5 **18.** Explain the method of first-aid treatment for someone suffering from electric shock.

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