



C14-EC-106

4039

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2018

DECE - FIRST YEAR EXAMINATION

ELECTRONIC ENGINEERING MATERIALS AND PRACTICES

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=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. Classify the conducting materials based on their resistivity.
2. Define corrosion.
3. Define thermoplastic and thermosetting resins.
4. What are the alloys used for bimetallic strips?
5. Write any three examples of soft and hard magnetic materials.
6. What is the purpose of Washers?
7. List the types of screw drivers used in electronics workshop.
8. What are the different heat treatment processes?
9. Draw the safety symbol which indicates.
 - (a) Danger-high voltage,
 - (b) Emergency.
10. Define Bragine and welding.

PART-B

10×5=50

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

- 11.** a) Explain the electrical properties of copper.
b) List any four metals commonly used in Electrical and Electronics fields.
- 12.** a) What are the applications of Nylon in electrical and electronics industries?
b) Explain factors affecting insulating resistance.
- 13.** a) List any four important of materials?
b) what are the merits of using cold rolled grain-oriented steel for transformer?
- 14.** a) Explain the use of Nickel-iron alloys.
b) Explain superconductivity phenomenon.
- 15.** a) List the types of hammers and mention the use of Ball pein hammer.
b) Explain riveting.
- 16.** a) Explain the process of soft soldering.
b) Explain the use of flux in soldering.
- 17.** a) Explain the Process of Annealing.
b) Exaplin the properties a) hardness, b) toughness
- 18.** List the general electrical safety rules.

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