

# C14-EC-106

# 4039

# BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2016 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. Classify conducting materials based on their resistivity.
- 2. Define corrosion.
- 3. List any three properties of PVC.
- 4. Write the differences between soft and hard magnetic materials.
- 5. Define an alloy and write any two uses of it.
- **6.** Write the classification of adhesives.
- 7. List different types of screwdrivers used in electronic workshop.
- **8.** Mention the use of soldering for cable joints.

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- **9.** What is the purpose of hardening?
- **10.** List the types of portable fire extinguishers.

#### 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 conduction in conductors, semiconductors and insulators.
- **12.** Explain why mica, ceramic and glass are used as electronic insulators.
- **13.** Explain the uses of soft magnetic materials in transformers.
- **14.** Explain the composition of neodymium and write any three applications of neodymium magnets. 5+5=10
- **15.** Explain the uses of engineering files and list various hand files used in electronic workshop. 7+3=10
- **16.** Explain eutectic point of metals.
- **17.** Explain the process of hardening and tampering. 5+5=10
- **18.** Explain the use of electrical earthing in preventing electrical shock.

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