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C14–EC–106

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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 3×10=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.

9. What is the purpose of hardening?

10. List the types of portable fire extinguishers.

PART—B

10×5=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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