



C14-AEI-105

4047

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2015

DAEIE—FIRST YEAR EXAMINATION

ELECTRONICS COMPONENTS AND MATERIALS

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

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. Draw the symbols of (a) Rheostat, (b) Resistor and (c) Variable resistor. 1×3=3

2. List the specifications of a resistor.

3. Define the term capacitance and mention its units. 2+1

4. State the losses in capacitors.

5. Classify the types of inductors.

6. Define switch.

7. Explain the need for a horn loudspeaker.

- * 8. List the materials used in soldering.
9. What are the different types of electronic engineering materials? 3
10. State the properties of PVC.

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. (a) What factors affecting the resistance of a resistor? 4
 (b) Find the value of total resistance R when 5 , 10 and 15 resistors are connected in parallel. 6
12. List the specifications of a capacitor and state their importance.
13. Describe the constructional features of AF and RF chokes. 5+5
14. (a) Classify types of switches. 5
 (b) State the need of fuse in electronic equipment and mention its ratings. 5
15. Explain the constructional features and principle of operation of PMMC loudspeaker.
16. Describe the photoprocessing techniques for PCB preparation.
- * 17. (a) Explain the atomic structure. 6
 (b) Explain resistivity. 4
18. Explain soft magnetic materials with examples.
