



C16-AEI-105

6012

BOARD DIPLOMA EXAMINATION, (C-16)

OCT/NOV—2018

DAEI—FIRST YEAR EXAMINATION

ELECTRONIC COMPONENTS AND DEVICES

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. Mention any three specifications of resistor.
2. Classify the types of capacitor.
3. Define self-inductance.
4. Classify switches according to poles and throws.
5. Define microphone.
6. List any three electrical properties of solid semiconductor material.
7. Draw the clipper circuit using diode.
8. Define active region of a transistor.

- * 9. State the need for filter circuit in power supplies.
10. List two methods of transferring layout on the copper clad sheet.

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 colour code of a resistor with an example. 6+4
12. State any three properties, range of value and any one application of paper and mica capacitors. 5+5
13. (a) Draw the symbols of iron core, air core and ferrite core inductors. 6
 (b) List any four specifications of an inductor. 4
14. (a) Explain the wrong of toggle switch. 6
 (b) List any four ratings of fuse. 4
15. (a) Explain the working of PMMC loudspeaker. 5
 (b) List two steps involved in screen printing for making PCBs and list any three materials used in screen printing. 5
16. Explain the working of PN junction diode with forward bias.
- * 17. Explain the working of PNP transistor and draw its symbol.
18. (a) Define voltage regulation. 4
 (b) Explain the simple Zener regulator. 6
