



C09-AEI-105

3010

BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2016

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. Define tolerance and power rating.
2. Define dielectric constant of a capacitor.
3. List any three specifications of inductor.
4. Classify relays based on application.
5. Mention the use of woofers and tweeters.
6. State the formation of N-type semiconductor.
7. Define barrier potential and depletion region.
8. Define alpha.

* 9. State the need for regulated power supply.

10. List the standard specifications of PCBs.

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) Describe the working of rheostat and mention its application. 5

(b) Explain the effect of temperature on resistance. 5

12. (a) List the applications of mica and electrolytic capacitors. 5

(b) List different types of dielectric used in capacitors. 5

13. Explain the constructional features of IF and pulse transformers.

14. Explain the working of rotary and slider switches with their ratings and applications.

15. Explain the working of clipper and C camper circuits using diodes.

16. Explain the working of transistor as an amplifier (CE configuration).

17. (a) Compare among half-wave, full-wave and bridge rectifiers. 5

(b) What is a ripple factor? 5

18. (a) Explain the principle of PMMC loudspeaker. 5

(b) Explain the need of PCB in electronic equipment. 5
