



C09-AEI-105

3010

BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2013

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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Classify the types of resistors.
2. List the losses in capacitors.
3. List the specifications of inductors.
4. State the need for a fuse in electronic equipment.
5. Mention the necessity of a baffle for a loud speaker.
6. Distinguish between intrinsic and extrinsic semiconductors.
7. Draw the symbols of PNP transistor and NPN transistor.
8. List the specifications of a diode.

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9. Compare between lead-acid cell and nickel-iron cell.
10. List the soldering materials of PCB's.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) The answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Compare between the features of carbon and wire wound potentiometers. 10
12. Explain the types of variable capacitors and mention their applications. 10
13. Describe the constructional features and applications of AF and RF chokes. 10
14. Classify different relays based on principle of operation and polarization and application. 10
15. (a) Explain the principle of operation of PMMC loud speaker. 5
(b) List the steps involved in screen printing for making PCB's. 5
16. (a) Describe the formation and working of a Zener diode. 7
(b) List the applications of tunnel diode. 3
17. Draw and explain the input and output characteristics of a transistor in CE configuration. 10
18. Explain the operation of a centre tapped full-wave rectifier and bridge rectifier with circuits and waveforms. 10

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