



C09-AEI-105

3010

BOARD DIPLOMA EXAMINATION, (C-09)

APRIL/MAY—2015

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. What are thermistors and sensistors?

2. Define dielectric strength of a capacitor.

3. List the losses in transformers.

4. List different types of fuse.

5. Classify microphones based on principle of working.

6. List the pentavalent impurities.

7. Sketch the characteristics of a Zener diode.

8. Sketch the output characteristics of common emitter configuration.

9. What is the need for a filter circuit in power supplies?

10. List the methods of layout preparation of PCB.

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[*Contd...*

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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 colour coding of resistors.
12. Find the equivalent capacitance of capacitors connected in (a) series and (b) parallel.
13. Find the equivalent inductance, when two inductors are connected in series aiding and opposing.
14. Explain the construction and working of general purpose electromagnetic relay.
15. Explain the working of *P-N* junction diode under forward and reverse bias.
16. Describe the working of transistor as an amplifier (CE configuration).
17. (a) List the types of storage battery. 5
(b) What is maintenance free battery? Give its applications. 5
18. (a) Compare the performance characteristics of cone-type and horn-type loudspeakers. 5
(b) Describe the steps involved in making double-sided PCB. 5

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