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C09-AEI-105

3010

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DAEI - FIRST YEAR EXAMINATION

ELECTRONIC COMPONENTS AND DEVICES

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

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

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

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define the property of resistance.
2. List the types of capacitors.
3. Define self-inductance.
4. Define a switch.
5. Mention the use of woofers and tweeters.
6. State the electrical properties of solid semiconductor materials.
7. Define intrinsic semiconductors.
8. Define alpha factor.
9. Define voltage regulation.
10. State the standard PCB specifications.

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PART—B

15×4=60

- Instructions :** (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the working of rheostat with diagram.
12. List the properties, range of values and applications of paper and electrolytic capacitors.
13. Explain the construction feature of power transformer with diagram.
14. Explain the construction and working of general purpose electromagnetic relay.
15. Explain the working principle of tunnel diode with diagram.
16. Explain the working of transistor as amplifier in CE configuration.
17. Explain the working of half-wave rectifier with diagram.
18. Explain the working of any electronic device with diagram.

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