C14-EE-305

4247

BOARD DIPLOMA EXAMINATION, (C–14)

OCT/NOV—2018

DEEE—THIRD SEMESTER EXAMINATION

ELECTRONICS - I

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. List the type of resisters based on composition.

2. List the different types of core material used in a transformer.

3. Write two differences between conductors and insulators.

4. What is the necessity of filter.

5. What is the need of voltage regulator.

6. Draw the symbols of Opto-coupler N - channel JFET and LED

7. Give the applications of photo diode.

8. Define operating poit.

9. State the need of transistor biasing.

10. Define (a) Gain, (b) Frequency response.

PART–B

10×5=50

Instructions : (1) Answer *any* **five** questions.
(2) Each questions carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. a) Define capacitance. Give its circuit symbol and units.

b) Compare the features of carbon and wire wound potentiometer.

12. a) Draw the characteristics of Zener diode.

b) Explain the operation of Zener diode.

13. Explain the working of center tapped full wave rectifier with a neat circuit diagram.

14. Explain the working of SCR.

15. Drawing equivalent circuit and explain V-I characteristics of UJT.

16. Explain how stabilization of operating Point is achieved.

17. Explain the working of RC coupled Amplifier.

18. Explain the working of two - stage transformer coupled amplifier.

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