



C14-EE-305

4247

**BOARD DIPLOMA EXAMINATION, (C-14)**  
**OCT/NOV—2015**  
**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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define (a) Capacitance (b) Inductance (c) Resistance.
2. List the losses in inductor.
3. Distinguish between intrinsic and extrinsic semiconductors.
4. Draw the circuit of full wave rectifier.
5. Compare centre tapped and bridge type full wave rectifier.
6. Draw the symbols of LED, UJT, SCR.
7. List the application of solar cell.
8. What is the necessity of transistor biasing?

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9. What is meant by faithful amplification?

10. List the applications of RC coupled amplifier.

**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) What are the factors affecting the value of capacitance? 5  
(b) Explain the specifications of resistors. 5

12. Explain the working of PN diode in (a) Forward bias and (b) Reverse bias. 5+5

13. (a) State the need of a filter. 4  
(b) Explain the working of Zener diode as a voltage regulator. 6

14. (a) Give four differences between LED and LCD. 4  
(b) Explain the working of photo-diode. 6

15. (a) List four applications of photo-transistor. 4  
(b) Explain the working of photo cell. 6

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16. Explain potential divider bias method.
17. (a) Classify amplifier based on period of conduction, frequency and function. 6  
(b) Compare different types of coupled amplifier. 4
18. Explain working of transformer coupled amplifier and draw its frequency response. 10

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