



C16-EE-305

6241

BOARD DIPLOMA EXAMINATION, (C-16)

OCTOBER/NOVEMBER—2024

DEEE – THIRD SEMESTER EXAMINATION

ELECTRONICS ENGINEERING—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. Compare P type and N type semiconductors in three aspects.
2. State different transistor configuration.
3. Draw the circuit diagram of Half-wave rectifier.
4. State the need for filter.
5. List the applications of UJT.
6. Draw the VI characteristics of SCR.
7. State the need for proper biasing for amplifier action.
8. List the methods of coupling in amplifiers.
9. Define feedback and feedback factor.
10. Write any three advantages of negative feedback.

PART—B

10×5=50

- Instructions :**
- (1) Answer *any* **five** questions.
 - (2) Each question carries **ten** 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 Zener diode with the help of VI characteristics.
- 12.** Draw and explain the working of centre tapped full wave rectifier with waveforms.
- 13.** Draw and explain the principle of operation of *N* channel JFET with drain characteristics.
- 14.** Explain the construction and working of LED.
- 15.** Explain about potential divider bias in transistor amplifier.
- 16.** (a) Explain the operation of a transistor as an amplifier.
(b) Explain the necessity of cascading of amplifiers.
- 17.** Explain the working of two-stage RC coupled amplifier with frequency response curve.
- 18.** Draw the block diagrams of voltage series, voltage shunt, current series, current shunt feedback amplifiers.

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