



C09-AEI-303

3213

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2017
DAEI—THIRD SEMESTER EXAMINATION
ELECTRONIC CIRCUITS

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. Define stability.
2. List any three advantages of JFET over BJT.
3. Draw the *V-I* characteristics of SCR and label the different regions.
4. List the types of couplings.
5. Draw the frequency response of transformer coupled amplifier.
6. List any three applications of power amplifiers.
7. Classify oscillator circuits.
8. List any three requisites of an oscillator.
9. Draw the circuit diagram of Schmitt trigger.
10. Classify multivibrators.

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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 potential divider method of biasing.
- 12.** Explain the principle of operation of UJT with circuit diagram and its characteristics.
- 13.** Explain the principle of operation of differential amplifier with a circuit diagram.
- 14.** (a) Draw the frequency response of *R-C* coupled amplifier and label it.
(b) Compare negative and positive feedback.
- 15.** Classify power amplifier circuits on the basis of frequency, period of conduction, and configuration.
- 16.** Explain the working of a crystal oscillator with a circuit diagram.
- 17.** (a) State the conditions for an amplifier to work as an oscillator.
(b) Distinguish between voltage and current time base generation and list any two applications.
- 18.** Draw and explain the working of a transistorized bistable multivibrator with waveforms.

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