C14-AEI-403

4415

BOARD DIPLOMA EXAMINATION, (C-14)
OCT / NOV-2017
DAEIE-FOURTH SEMESTER EXAMINATION
ELECTRONIC CIRCUITS

Time : 3 Hours] [Total Marks : 80

PART - A 3 x 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 various stabilization techniques.

2. State why CE mode is widely used in amplifier circuits.

3. Classify amplifiers based on frequency.

4. Mention any three advantages of Emitter Follower.

5. List three IC numbers for power amplifiers.

6. State the necessity of heat sink for a power transistor and power I.C device.

7. List any three applications of oscillators.

8. State any three reasons for instability in oscillator circuits.

9. Define Sweep Voltage.

10. Draw Miller's Sweep circuit using a transistor.

PART - B

10 x 5 = 50

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

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

(3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

11. a) Explain the concept of DC and AC load line.

b) Determine the Q-point on the DC load line.

12. Explain the principle of operation of two-stage RC Coupled amplifier with a circuit diagram.

13. a) Compare negative and positive feedback amplifier.

b) Explain Darlington amplifier.

14. Draw and explain the circuit of Push-Pull Power Amplifier.

15. Explain the working of tuned collector oscillator with diagram.

16. Sketch a simple current sweep circuit and explain with waveform.

17. Explain with diagram the working of Monostable multi vibrator with waveforms.

18. a) Explain the principle of operation of different amplifier.

b) Explain the working of Colpitts oscillator circuit.

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