



C14-AEI-403

4415

BOARD DIPLOMA EXAMINATION, (C-14)
OCT/NOV—2016
DAEIE—FOURTH 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. State why CE mode is widely used in amplifier circuits.

2. Define stability.

3. Classify the amplifiers based on period of conduction.

4. Mention the advantages of emitter follower.

5. Compare between negative feedback and positive feedback.

6. List the different types of heat sink and mounting methods.

7. List the requisites of an oscillator.

- * 8. State any three reasons for instability in oscillator circuits.
- 9. Define sweep voltage.
- 10. Draw monostable multivibrator.

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 two-stage RC coupled amplifier with a circuit diagram and frequency response.
- 13. Explain the working of Darlington amplifier with a circuit diagram.
- 14. Draw and explain the circuit of push-pull power amplifier.
- 15. Explain the working of Wien bridge oscillator.
- 16. (a) Explain the principle of operation of differential amplifier. 5
(b) Explain the working of Hartley oscillator with the expression of frequency of oscillation. 5
- * 17. Draw and explain the operation of bootstrap sweep circuit.
- 18. Draw and explain the working of Schmitt trigger circuit with waveforms.
