



C14-AEI-403

4415

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—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. List the reason why CE mode is widely used in amplifier.
2. List the different types of biasing circuits.
3. Classify the amplifiers based on period of conduction.
4. Mention the different types of coupling used in multistage amplifiers.
5. List any three applications of power amplifiers.
6. State the necessity of heat sink in power amplifiers.
7. List any three advantages of crystal oscillator over other oscillators.
8. State the condition for an amplifier to work as an oscillator.

* 9. Distinguish between voltage and current sweep generators.

10. List any three applications of sweep circuits.

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) Obtain the expression for stability factor in CE configuration. 5

(b) Determine the operating point on DC load line. 5

12. Draw and explain Schmitt trigger circuit with waveforms.

13. Explain the working of transformer-coupled amplifier with diagram.

14. (a) Draw the voltage series feedback amplifier circuit. 5

(b) List the different types of heat sinks and mounting methods. 5

15. Explain the working of push-pull power amplifier with diagram.

16. Explain the working of Wien bridge oscillator with diagram.

17. Explain the working of transistor monostable multivibrator with waveforms.

* 18. (a) State the reasons and remedies for instability in oscillator circuits. 5

(b) Draw the frequency response of RC-coupled amplifier. 5
