



C09-AEI-303

3213

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2014
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 the operating point.
2. List out the applications of SCR.
3. Draw the drain characteristics of FET.
4. Classify the amplifiers based on frequency.
5. State the need of multistage amplifier.
6. List out the advantages of emitter follower circuit.
7. List out the applications of oscillators.
8. State the condition for an amplifier to work as an oscillator.
9. Distinguish between voltage and current time base generation.
10. Draw a simple current sweep circuit.

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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. (a) Explain the need for stabilization. 5
(b) Draw and explain thermistor compensation technique. 5
12. Explain the construction and working of UJT. 10
13. Draw and explain the working of transformer-coupled amplifier. 10
14. (a) Explain the principle of operation of differential amplifiers. 5
(b) What is heat sink? List out different types of heat sinks. 5
15. With a neat diagram, explain the operation of Wein bridge oscillator. 10
16. (a) List out the reasons and remedies for instability in oscillator circuits. 5
(b) Draw and explain working of Schmitt trigger circuit. 5
- * 17. Draw and explain the working of transistor bistable multivibrator with waveforms. 10
18. Draw and explain the circuit of push-pull power amplifier. 10
