23137

C23-EE–304

23137

BOARD DIPLOMA EXAMINATION, (C-23)

OCTOBER/NOVEMBER—2024

DEEE – THIRD SEMESTER EXAMINATION

ELECTRONICS ENGINEERING

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. ABBREVIATE MOSFET and draw its circuit symbol.

2. Draw the VI characteristics of Zener diode.

3. Define rectifier.

4. State the need of filters in power supplies.

5. Define the term of feedback factor.

6. List any three advantages of RC coupled amplifier.

7. List any three applications of oscillators.

8. State the need of square wave oscillator.

9. List any three advantages of integrated circuits.

10. List any three ideal characteristics of OP-Amp.

PART—B

10×5=50

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

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

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

11. Explain the VI characteristics of PN junction diode.

12. Draw the input output characteristics of transistor in common EMITTER configuration and explain.

13. Explain the working of half wave rectifier with neat wave forms.

14. Explain the effect of feedback on gain, noise and bandwidth.

15. *(a)* List the application of amplifier.

(b) Classify the oscillators.

16. Explain the working of RC phase shift oscillator with neat circuit diagram.

17. Explain the operation of differential amplifier.

18. Explain the working of OP-AMP as inverter.

★★★