

[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 1798 C Roll No.....

Unique Paper Code : 251204

Name of the Course : B.Sc. (H) Electronics

Name of the Paper : Electronics Practical – IV (ELHP-206)

Semester : II

Duration : 1 Hour Maximum Marks : 25

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt 5 questions from Section A and 10 questions from Section B.
3. Section A question carry 1 mark each, while section B questions carry 2 marks each.

SECTION – A

1. List the four quantities that can be measured with the help of multimeter in the laboratory.
2. Can you identify the terminal of a diode by multimeter ? If yes, how ?
3. Which transistor configuration has highest power gain ?
4. What is Zener voltage ?
5. Why is the collector current slightly less than the emitter current in CB configuration ?
6. Why FET is called a unipolar transistor ?
7. When the anode current falls below the holding current, what will happen to SCR ?

P.T.O.

SECTION – B

8. What happens to the potential barrier, when forward bias and reverse bias is applied to the p-n junction ?
9. How and why does the reverse saturation current vary with temperature ?
10. Differentiate between zener breakdown and avalanche breakdown in a diode.
11. The base region in a transistor is thin and lightly doped as compared to emitter and collector, why ?
12. What is the phase relationship between the output and input voltage in CE and CB configuration ?
13. The CB current gain of a transistor is 0.967. If the emitter current is 10 mA, what is the value of base current ?
14. What are the different modes of operation in a transistor ? Which mode is used for operating transistor as an amplifier ?
15. In I-V characteristics of JFET, the drain current varies linearly initially, and after that it becomes almost independent of the applied drain to source voltage, why ?
16. Define trans-conductance and channel conductance of JFET.
17. Draw the doping profile in different layers of SCR.
18. Draw the I-V characteristics of SCR and label the different regions.
19. Draw the basic structure of a UJT and define intrinsic standoff ratio(η).
20. How does the negative resistance region arise in UJT ?