2018

CBCS

3rd Semester

ELECTRONICS

PAPER—C5P

(Honours)

(Practical)

Full Marks : 20

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Semiconductor Devices Lab.

1. Study the I-V chracteristic of a diode in forward lins condition. Find its ac and dc resistance.

2. Study the I-V characteristic of a BJT in CE mode of operation for different values of base current and find r_i, r_o and β. (Symbols have their usual meaning)

3. Study the J-V characteristics of a BJT in common base mode of operation and find r_i, r_o, β. Symbols save their usual meaning.

4. Study the static characteristic of JFET (I_D V_S V_{DS}) of a common source JFET. Also study its transfer characteristics curve.

5. Study the I-V characteristic of a SCR.

6. Study the I-V characteristics of the common collection configuration of BJT and find voltage gain r_i, and r_o.

7. Design p-n junction (ordinary) circuit and obtain I-V characteristics curve.

8. Design zener diode circuit and obtain I-V characteristics curve.

9. Design CE configuration of BJT and obtain r_i, r_o and β.

10. Study the I-V characteristics of CB configuration and obtain voltage gain r_i and r_o.

11. Design UJT circuit and study the I-V characteristics.

12. Design SCR circuit and study its I-V characteristics.

(Continued)

13. Study the I-V characteristics curve of JFET.

14. Design MOSFET circuit and obtain I-V characteristics.

Distribution of Marks :

Experiment : 15 marks

Laboratory Note Book : 02 marks

Viva-Voce : 03 Marks