

II Year I Semester
17EC311

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ELECTRONICS DEVICES AND CIRCUITS LABORATORY

Course Objective: This lab course is intended to know the usage of various electronic equipment and to study the characteristics of different electronic devices.

Note: Any of the 10 experiments to be conducted

1. P-N Junction Diode Characteristics.
Part A: Germanium Diode (Forward bias & Reverse bias).
Part B: Silicon Diode (Forward bias & Reverse bias).
2. Zener Diode Characteristics.
Part A: V-I Characteristics.
Part B: As a Voltage Regulator.
3. V-I Characteristics of LED
4. Half-wave Rectifier (without and with filter).
5. Full-wave Rectifier (without and with filter).
6. Switching characteristics of BJT
7. BJT Characteristics (CE Configuration).
Part A: Input Characteristics.
Part B: Output Characteristics.
8. BJT Characteristics (CB Configuration).
Part A: Input Characteristics.
Part B: Output Characteristics.
9. BJT Characteristics (CC Configuration).
Part A: Input Characteristics.
Part B: Output Characteristics.
10. FET Characteristics (CS Configuration).
Part A: Drain Characteristics.
Part B: Transfer Characteristics.
11. SCR Characteristics.
12. UJT Characteristics.

Course outcome:

1. Understand and analyze the behaviour of PN junction diode, Zener diode, LED and their applications.
2. Understand the characteristics of BJT in CE, CB, CC configurations and FET in CS Configuration and their applications.
3. Understand the characteristics and applications of SCR and UJT.