EC-251

#### ELECTRONIC DEVICES LAB

# L T P C - - 3 2

## COURSE OBJECTIVES:

- 1. To observe the dc and ac waveforms on CRO
- To plot the characteristics of basic electronic devices like p-n junction diode, zener diode, BJT characteristics in various configurations, JFET etc..
- 3. To design the basic biasing circuits for BJT and JFET
- 4. To design and verify the collector base bias circuit.

### COURSE OUTCOMES:

### After successful completion of the course, the students are able to

- 1. differentiate characteristics of p-n Junction diode, zener diode, BJT in CE, CB configurations, JFET.
- calculate parameters from the characteristics of static, dynamic and reverse resistances of p-n junction diode, h-parameters of BJT.
- 3. design circuits to achieve the specified operating point.
- 4. measure the amplitude and frequency of given waveform using CRO.

### List of Experiments:

- 1. Study of C.R.O.
- 2. Characteristics of Silicon and Germanium diodes.
- 3. Characteristics of Zener diode.
- 4. Characteristics of Common Base configuration.
- 5. Characteristics of Common Emitter configuration.
- 6. Characteristics of Emitter follower circuit.
- 7. Characteristics of JFET.
- 8. Design and verification of collector to base bias circuit.
- 9. Design and verification of Self bias circuit using BJT.
- 10. Design and verification of Self bias circuit using MOSFET.
- 11. Characteristics of MOSFET.
- 12. Study of Full wave Rectifier without Filter.
- 13. Study of Full wave Rectifier with Filter.
- 14. Characteristics of source follower circuit.
- **Note:** A minimum of 10(Ten) experiments have to be performed and recorded by the candidate to attain eligibility for Semester End Practical Examination.