

UNIT III
BIPOLAR JUNCTION TRANSISTOR (BJT)

1. Explain construction and operation of CB configuration of a transistor with V-I characteristics.
2. With neat circuit diagram, explain input and output characteristics of CE configuration of a transistor.

UNIT IV
FIELD EFFECT TRANSISTOR (FET)

1. Explain construction and the operation of N-channel JFET with the help of drain characteristics and transfer characteristics?
2. Explain the construction of an N-channel MOSFET of enhancement type and draw its characteristics?
3. Explain the construction of an N-channel MOSFET of depletion type and draw its characteristics?
4. A) Compare BJT and FET?
B) Describe how a FET can be used as a Voltage Variable Resistance (VVR).
C) How MOSFET can work as a capacitor?

UNIT V
SPECIAL PURPOSE DEVICES

1. A) Explain the V-I Characteristics of Zener Diode.
B) How is Zener diode act as a Voltage Regulator?
2. Explain the construction and operation of UJT with the help of its V-I characteristics?
3. Explain the V – I Characteristics of a Tunnel Diode with the help of Energy Band diagrams.
4. Describe the Construction and Principle of Operation of SCR with V-I Characteristics.