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Sub-Electronics Paper-CC-3 Sem-2

Sample Question Papers

( Short answer type Questions)

1. Explain energy bands in solids.
2. Explain space charge at P-N- Junction. How does it can be monitor with external biasing ?
3. What is BJT ?. Give the basic transistor action ?
4. What is J FET ? Explain pinch off voltage.
5. Expain the I-V characteristics of BJT in CE Mode.

Group-B

( Long answer type Questions)

1. Derive the expression of carrier concentration in intrinsic semiconductor in normal Equilibrium condition. What is law of mass action ?
2. Derive the diode equation and expain its V-I characteristics.
3. What are the terms Emitt Efficiency,Base Transport factor and current gain in BJT ? ive the energy band diagram of Transistor in Thermal equilibrium expain it ?
4. What is JFET ? Give idea of channel formation explain its I-V characteristics ? what is saturation voltage ?
5. Write short notes on any two:
6. Fermi level of intrinsic Semiconductor
7. Zener breakdown mechanism
8. MOSFET
9. E-MOSFET