



## SECTION-B

2. Find the mobility of electrons in copper if there are  $9 \times 10^{28}$  valence electrons/ $\text{m}^3$  and the conductivity of copper is  $6 \times 10^7$  mho/m.
3. Explain effect of temperature on Fermi energy level of an extrinsic semiconductor.
4. Explain the concept of charge carriers' generation and recombination.
5. Discuss the working of depletion type MOSFET.
6. What are the characteristics of solar cells?

## SECTION-C

7. Discuss the Ebers-Moll model of Bipolar junction transistor.
8. How does doping is done using Ion Implantation? Discuss the working of Ion implanter.
9. **Discuss the following :**
  - a) Chemical Vapour Deposition.
  - b) Schottky diode.

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