

B.Sc DEGREE EXAMINATION, EVEN SEMESTER 2021
III Year VI Semester
Solid State Physics and Semi-Conductor Devices

Max.marks :25

Answer any **FIVE** questions ($5 \times 5 = 25$) Marks

1. Explain the FCC and HCP structures and mention the similarities and differences.
2. Explain the rotating crystal method for doing X-Ray diffraction studies on a crystal.
3. Explain Langevins theory of diamagnetism.
4. Obtain Clausius-Mossotti relation that relates dielectric constant and polarisability of a dielectric material.
5. Describe the characteristics of UJT. Explain how it is working as relaxation oscillator.
6. Discuss the characteristics of SCR. Mention its applications
7. Explain Weiss theory of paramagnetism