

Set B

B.Sc. (H) Geology (CBCS) (Semester-I)

Paper C2, Mineral Science

Unique Paper Code-32191102

Maximum marks 75

Time 3 hrs.

Answer ANY FOUR questions. All questions carry equal marks.

1. What is symmetry in crystals? Explain with examples, the various symmetry characters found in crystals and their importance in the study of crystals.
2. Define extinction angle. Why does a mineral shows extinction under the microscope? Discuss extinction angle in relation to the crystal systems.
3. Describe crystal structure of amphiboles. Compare the crystal structures of single- and double chain silicates and the discuss the pyroxene and amphibole cleavages in this context.
4. Describe the principle of stereographic projection. Differentiate between spherical and stereographic projection.
5. What do you understand by crystal defects? Describe different types of crystal defects and draw free hand sketches explaining them.
6. What do you understand by solid solution? Give example from a mineral group. What are the different types of solid solution?