

B.Sc. CBCS Pattern Semester-II
USGEOT04 - Geology Paper-II (Crystallography and Optical Mineralogy)

P. Pages : 2

Time : Three Hours



GUG/W/23/11583

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat sketches wherever necessary.

1. What is a crystal? Describe the laws of crystallography.

OR

- a) Interfacial angle.
- b) Contact Goniometer.

2. Give an account of galena class of cubic system with reference to symmetry elements, forms along with their miller indices.

OR

Write short notes on the following.

- a) Axial and Symmetry elements of tetragonal class.
- b) Crystallographic symmetry of Baryte.

3. Give an account of Gypsum class of Monoclinic system with reference to symmetry elements, forms along with their miller indices.

OR

Write short notes on the following.

- a) Crystallographic axis of Axinite.
- b) Dihexagonal pyramid and Dihexagonal prisms.

4. Give an account of Pleochroism and Extinction.

OR

Describe the optical properties of the following.

- a) Muscovite and Biotite
- b) Chlorite and Hornblende.

5. Write the following is not more than two sentences solve **any ten**.

- a) Solid angles.
- b) Faces.
- c) Unit cell.
- d) Name any two mineral crystallized in Baryte class other than Baryte.
- e) Brachypinacoid.
- f) Basal pinacoid.
- g) Front pinacoid.
- h) Side pinacoid.
- i) Axial symmetry elements of Axinite.
- j) Relief.
- k) Refractive index.
- l) Twinning in Microcline.
