

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

P. Pages : 2

Time : Three Hours



GUG/S/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. Give an account of Miller indices and Weiss parameters.

OR

Write short notes on the following.

- a) Crystal structure of NaCl.
 - b) Weiss parameters.
2. Give an account of Baryte class of orthorhombic system with reference to symmetry elements, forms along with their miller indices.

OR

Write short notes on the following.

- a) Cube and Trapezohedron.
 - b) Crystallographic axis of Zircon.
3. Give an account of Axinite class of Triclinic system with reference to symmetry elements, forms along with their miller indices.

OR

Write short notes on the following.

- a) Symmetry elements of hexagonal system.
 - b) Di hexagonal pyramid and Hexagonal prism first order.
4. Describe with neat sketches optical characters of Muscovite, Albite, Kyanite and Actinolite.

OR

Describe the optical proportion of the following.

- a) Cleavage and relief.
- b) Chlorite and hornblende.

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

- a) Space lattice.
- b) Solid angle.
- c) Zone.
- d) Name any two minerals that crystallize in tetragonal system.
- e) Center of symmetry.
- f) Plane of symmetry.
- g) Name any two minerals that crystallize in hexagonal system other than Beryl.
- h) Quarter bipyramid.
- i) Name any two minerals crystallizing in monoclinic crystal system.
- j) Plane polarized light.
- k) Cross hatching.
- l) Relief of Quartz.
