

16U319

(Pages: 2)

Name:

Reg. No.

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

(Regular/Supplementary/Improvement)

(CUCBCSS – UG)

Geology - Core Course

CC15UGL3B05- CRYSTALLOGRAPHY

(2015 Admission Onwards)

Time: Three Hours

Maximum: 80 Marks

Draw neat sketches wherever necessary.

I. Answer *all* questions:

1. The instrument used for accurate measurement of interfacial angles of crystals.
2. The highest degree of symmetry is shown by the _____ system.
3. A crystal form represented by one face only.
4. The total number of crystal classes in Tetragonal system.
5. What is the type mineral of Trapezohedral class of Hexagonal system?
6. The crystal forms in which faces are always parallel to vertical axis is _____
7. The general symbol of tetrahedron is _____.
8. The general form of isometric system having 48 triangular faces and with symbol (hkl).
9. What is the crystal system in which topaz crystallizes?
10. Type of twin characteristic of the mineral pyrite is _____.

(10 x 1 = 10 Marks)

II. Answer *any ten* questions in **one or **two** sentences each:**

11. Crystal.
12. Axial ratio.
13. Enantiomorphic forms.
14. Holohedral class.
15. Octahedron.
16. Trigonaltrapezohedron.
17. Brachy axis.
18. Symmetry elements of Monoclinic system-Normal class.
19. Spinel law.
20. Brazil laws.

21. Genuiculate twins.
22. Twin plane.

(10 x 2 = 20 Marks)

III. Answer *any five* questions in a paragraph each:

23. Morphological characters of crystal.
24. Parameter system of Weiss and Miller indices.
25. Typical forms of the Pyritohedral class of Isometric system.
26. Characteristics of Sphenoidal class of Tetragonal system.
27. Typical forms present in Normal class of Hexagonal system.
28. Symmetry elements and crystal forms of Rhombohedral class-Hexagonal system.
29. Forms of the Normal class of Monoclinic system.
30. Twin laws characteristic of Feldspars.

(6 x 5 = 30 Marks)

IV. Write essays on *any two* of the following:

31. Give an account of the important laws of crystallography.
32. Describe the Normal class of Tetragonal System with reference to the symmetry elements, forms and type mineral.
33. Explain the symmetry elements, forms and type mineral of the Normal class of Orthorhombic system.
34. Describe the symmetry elements, forms and type mineral of the Normal class of Triclinic system.

(2 x 10 = 20 Marks)
