QP CODE: 24026906

24026906

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

Core Course - GL3CRT03 - CRYSTALLOGRAPHY AND PHYSICAL MINERALOGY

Common to B.Sc Geology Model I and B.Sc Geology and Water Management Model III

2017 Admission Onwards

2E5D2E98

Time: 3 Hours Max. Marks : 60

core

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Differentiate crystal and crystalline forms.
2. Define axial ratio.
3. What are holohedral forms?
4. Define the form in Isometric system with indices (110).
5. Define dipyramids.
6. Name the type mineral of hexagonal tripyramidal class.
7. Name the type mineral of orthorhombic hemimorphic class.
8. Name the type mineral of normal class of monoclinic system.
9. What is a cyclic twin?
10. What is Mineraloid?
11. Name a mineral which lacks cleavage.
12. Name the minerals which shows double hardness.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write a note on various types of angles measured on a crystal.
14. Explain axis of symmetry in crystals.
15. Draw and label orientation of crystallographic axis and axial relations in 6 crystal systems.
16. Differentiate octahedron and tetrahedron.
17. Write notes on rhombohedron and rhombohedral scalenohedron.
18. Explain the symmetry elements and typical forms present in the normal class of triclinic system.
19. Describe various defects shown by crystals.
20. Discuss the various physical properties of minerals due to its interaction with light.
21. Explain paramagnetism and diamagnetism in minerals with examples.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the symmery and forms of pyritohedral and plagiohedral classes of isometric system.
23. Explain the different classes of orthorhombic system.
24. Differentiate between spherical and stereographic projections in crystals. Draw the stereographic projection of symmetry elements of normal class of isometric system.
25. Define mineral and mineraloids. Explain the various mechanical properties of minerals and its measurements.

(2×10=20)