

19U321S

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Name:

Reg. No.....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCBCSS-UG)

CC15U GL3 B05 - CRYSTALLOGRAPHY

(Geology - Core Course)

(2015 to 2018 Admissions – Supplementary/Improvement)

Time: Three Hours

Maximum: 80 Marks

Draw neat sketches wherever necessary

PART- A

Answer *all* questions. Each question carries 1 mark.

Answer *all* questions.

1. Name the system in which staurolite crystallizes.
2. The Miller's Symbol for parameters 2a:2b:3c
3. Name the pyramid which has 16 similar faces but meets the three at unequal distances.
4. The twin plane in the Albite law.
5. The instrument used to measure interfacial angles.
6. A crystal system which has all closed forms.
7. The miller indices for hextetrahedron.
8. Name an enantiomorphic form in the hexagonal system.
9. Type mineral of sphenoidal class of Tetragonal system.
10. Name an open form having 8 faces.

(10 x 1 = 10 Marks)

PART - B

Answer any *ten* questions in one or two sentences. Each question carries 2 marks.

11. Crystal face.
12. Law of rational indices.
13. Composition plane.
14. Pideon.
15. Symmetry elements of normal class of Monoclinic system.
16. Hemihedral forms.
17. Combination forms.
18. Spinel law.
19. Tetrahedron.
20. Dome.

21. Crystal systems.

22. Axial ratio.

(10 x 2 = 20 Marks)

PART - C

Answer any *five* questions in a paragraph. Each question carries 6 marks.

23. Contact goniometer.

24. Miller indices.

25. Scalenohedron and rhombohedron.

26. Hemimorphic and Enantiomorphic forms.

27. Normal class of Triclinic system.

28. Pyritohedron and Diploid.

29. Tripyramidal class of Tetragonal system.

30. Trapezohedral class of trigonal division of Hexagonal system.

(5 x 6 = 30 Marks)

PART – D

Write essays on any *two* of the following. Each question carries 10 marks.

31. Describe the symmetry elements and morphological characters of crystals.

32. Describe the forms and symmetry elements of normal class of Isometric system.

33. Describe the twin crystals in terms of their components, types and laws of twinning.

34. Describe the forms and symmetry elements of normal class of orthorhombic system.

(2 x 10 = 20 Marks)
