24U325 (Pages: 2) Name : .....

Reg. No : .....

THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

CC24UGEL3CJ202 - CRYSTALLOGRAPHY & STRATIGRAPHY

(B.Sc. Geology - Major Course)

(2024 Admission - Regular)

Time: 2.0 Hours Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 3 marks.

1. Explain Spheniod. [Level:2] [CO2]
2. Explain plagiohedral class. [Level:2] [CO2]
3. Explain Crystal notation. [Level:2] [CO1]
4. Explain Baveno law. [Level:2] [CO2]
5. Explain Penetration twin. [Level:2] [CO2]
6. Symmetry elements of Barite. [Level:1] [CO2]
7. Define homotaxis in stratigraphy. [Level:1] [CO4]
8. Debate what are the limitations of using only physical criteria for correlation? [Level:5] [CO4]
9. Define Taxon range zone. [Level:1] [CO6]
10. Define lithostratigraphic horizon. [Level:1] [CO6]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer ***all*** questions. Each question carries 6 marks.

11. Explain Laws of crystallography. [Level:2] [CO1]
12. Describe symmetry elements in crystallography. [Level:2] [CO1]
13. Explain Origin of twinning. [Level:2] [CO2]
14. Distinguish between monoclinic and triclinic normal classes in terms of their symmetry elements. [Level:4] [CO2]

15. Explain how inclusions help establish the relative ages of rocks. [Level:2] [CO3]

16. Assess how Law of Superposition help determine the relative ages of rock strata? [Level:5] [CO3]

17. Explain the different types of unconformities. [Level:2] [CO5]

18. Distinguish between ordovician silurian and late devonian extinction event. [Level:4] [CO5]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

19. Describe the symmetry elements and forms present in the rhombohedral division. [Level:1] [CO2]

20. Explain laws of stratigraphy. [Level:2] [CO3]

(1 × 10 = 10 Marks)

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