

23U408

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Name :

Reg. No :

FOURTH SEMESTER B.Sc. / M.Sc. INTEGRATED GEOLOGY DEGREE EXAMINATION,

APRIL 2025

(CBCSS-UG)

(Regular/Supplementary/Improvement)

CC19U GEO4 B07 / CC20 GLO4 IB04 / CC23 GLO4 IB04 -

OPTICAL AND DESCRIPTIVE MINERALOGY

(Geology - Core Course)

(2019 Admission onwards)

Time: 2 Hours

Maximum: 60 Marks

Credit: 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Laws of reflection.
2. Polarizer.
3. Uniaxial minerals.
4. Acute bisectrix.
5. Parallel/ straight extinction.
6. Diagnostic features of garnets under thin section.
7. TOT- 'I- beam' structure
8. Name Mica group of minerals.
9. Myrmekite.
10. Occurrence of epidotes.
11. Nepheline.
12. Mode of occurrence of Steatite.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Brewster's law.
14. Gypsum plate..
15. Calcic amphiboles.

16. Aluminosilicate polymorphs.
17. Optical and Physical properties of Quartz.
18. Optical and Physical properties of Staurolite.
19. Chemistry, mode of occurrence and uses of Corundum.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Write an essay on optical properties of Isotropic and anisotropic minerals.
21. Structure, Chemistry, Optical and Physical properties, mode of occurrences and uses of Olivine group of minerals.

(1 × 10 = 10 Marks)
