

24I403

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Name:

Reg.No:

FOURTH SEMESTER INTEGRATED M.Sc. GEOLOGY DEGREE EXAMINATION, APRIL 2026

(CBCSS)

(Regular/Supplementary/Improvement)

CC20GLO4IB04 / CC23GLO4IB04 - OPTICAL AND DESCRIPTIVE MINERALOGY

(Geology)

(2020 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

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

1. Reflection.
2. Critical angle.
3. Relief of a mineral.
4. Uniaxial minerals.
5. Optic sign of biaxial mineral.
6. Parallel/ straight extinction.
7. Pyralspite group
8. Orthopyroxene
9. Orthorhombic amphiboles
10. Feldspathoid
11. Uses of Cordierite
12. Chemistry of Sphene

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Nicol prism.
14. Mica plate.
15. Phase changes in olivines.
16. Differentiate muscovite and biotite.

17. Structure and chemistry of Feldspars.
18. Optical and Physical properties of Chlorite.
19. Optical and Physical properties of Beryl.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Explain optical microscope and its parts with neat sketches.
21. Describe the mineralogy, structure, chemistry, optical and physical properties, modes of occurrence and uses of Quartz.

(1 × 10 = 10 Marks)
