21U408 (Pages: 2) Name: .....

Reg.No: .....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U GEO4 B07 - OPTICAL AND DESCRIPTIVE MINERALOGY

(Geology - Core Course)

(2019 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. Destructive interference.
2. Birefringence.
3. Polarizer.
4. Optic axis.
5. Inclined extinction.
6. Why the nesosilicates have high hardness and specific gravity?
7. Ugrandite group.
8. Omphacite.
9. Rapakivi texture.
10. Occurrence of epidotes.
11. Distinguishing properties of chlorite.
12. Zeolites.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Nicol prism.
14. Sign of elongation.
15. Modes of occurrence and uses of Mica.
16. Modes of occurrence and uses of Feldspathoids.
17. Optical and Physical properties of Spinel.

18. Chemistry, mode of occurrence and uses of Scapolite.

19. Chemistry, mode of occurrence and uses of Fluorite.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Write an essay on methods of plane Polarization. Add a short note on construction of nicol prism.

21. Structure, Chemistry, Optical and Physical properties, mode of occurrences and uses of Amphibole group of minerals.

(1 × 10 = 10 Marks)

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