22U408

(Pages: 2)

Name:

Reg.No:

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2024

(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. Crest and trough of a wave.
- 2. Constructive interference.
- 3. Obtuse bisectrix.
- 4. Negative sign of elongation.
- 5. Wavy extinction.
- 6. Describe the rocks having olivine as major constituents.
- 7. Melanite.
- 8. Cleavages in pyroxenes.
- 9. Alkali feldspar.
- 10. Occurrence of epidotes.
- 11. Chlorite.
- 12. Topaz.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

- 13. Becke line test.
- 14. Methods of producing plane polarized light.
- 15. Optical and Physical properties of Mica.
- 16. Structure and chemistry of Quartz.

- 17. Modes of occurrence and uses of Spinel.
- 18. Chemistry, mode of occurrence and uses Talc.
- 19. Chemistry, mode of occurrence and uses of Sphene.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any one question. The question carries 10 marks.

- 20. Write an essay on biaxial minerals. Describe briefly about biaxial indicatirx and determination of optic sign.
- 21. Structure, Chemistry, Optical and Physical properties, mode of occurrences and uses of Amphibole group of minerals.

 $(1 \times 10 = 10 \text{ Marks})$
