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(Pages: 2)

Name: .....

Reg.No: .....

**SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2022**

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P GEL2 C05 - CRYSTALLOGRAPHY & MINERALOGY**

(Applied Geology)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

**Part-A**

Answer any *four* questions. Each question carries 2 weightage.

1. Amorphous and crystalline materials.
2. Napier's rule.
3. Types of extinction with examples.
4. Structure and classification of silicates.
5. Properties of Amphibole group of minerals.
6. Scapolite.
7. Average mineralogical composition of crust and mantle.

**(4 × 2 = 8 Weightage)**

**Part-B**

Answer any *four* questions. Each question carries 3 weightage.

8. Translational periodicity in crystals.
9. Symmetry elements of crystal classes.
10. Uniaxial interference figure.
11. Uniaxial indicatrix.
12. Olivine group of minerals.
13. Properties of Feldspathoids.
14. Zeolite group of minerals.

**(4 × 3 = 12 Weightage)**

### **Part-C**

Answer any *two* questions. Each question carries 5 weightage.

15. Define Bragg's law. Explain how powder diffraction method is useful in the study of minerals.
16. Compare different types of crystal notations in detail.
17. Explain optical properties of minerals.
18. Explain Structure, chemistry, physical and optical characters and paragenesis of Spinel group.

**(2 × 5 = 10 Weightage)**

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