

23P352

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Name:

Reg.No:

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2024

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P GEL3 C09 - IGNEOUS AND METAMORPHIC PETROLOGY

(Applied Geology)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

Part-A

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

1. Explain two basic types of magma.
2. Explain significance of pillow structure.
3. Explain the significance of Ab- An- Di System.
4. Explain mode and norm.
5. Explain Carbonatite.
6. Explain shear zone.
7. Mention about contact metamorphism.

(4 × 2 = 8 Weightage)

Part-B

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

8. Explain REEs. Highlight their significance in the study of igneous rocks.
9. Explain Ab- An- Or Phase diagram with neat sketches.
10. Explain Variation diagram.
11. Explain pegmatites.
12. Explain thermobarometry.
13. Describe facies.
14. Explain extraterrestrial metamorphism.

(4 × 3 = 12 Weightage)

Part-C

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

15. Assess the significance of Bowen's reaction series in explaining magmatic differentiation.

16. Formulate the sequence of equilibrium and fractional crystallisation in Albite-Anorthite system. Add a note on their petrologic significance.
17. Discuss ACF, AKF, AFM projections with neat sketches.
18. Explain anatexis and formation of migmatites.

(2 × 5 = 10 Weightage)
