

21P353

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Name:

Reg.No:

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(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 Bowen's Discontinuous Reaction Series.
2. Explain Igneous Structures.
3. Explain Phase rule in igneous petrology.
4. Explain Ternary and quaternary phase diagrams.
5. Explain Shand Holme's Classification of igneous rocks.
6. Explain Polymetamorphism.
7. Describe Migmatites.

(4 × 2 = 8 Weightage)

Part-B

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

8. Explain significance of trace elements in igneous petrogenetic studies.
9. Explain isotopic studies in petrogenesis of igneous rocks.
10. Explain Di- An system with neat sketches.
11. Explain Variation diagram.
12. Describe Chemographic projections of metamorphic rocks.
13. Explain different type of chemical reactions relevant to thermobarometry.
14. Explain low P/T metamorphism of pelites.

(4 × 3 = 12 Weightage)

Part-C

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

15. Describe the Albite-Anorthite-Orthoclase system. Add a note on the significance of perthite and antiperthite.
16. Explain petrography and petrogenesis of alkaline rocks.
17. Describe metamorphism in context of plate tectonics.
18. Describe metamorphic significance of metamorphic texture.

(2 × 5 = 10 Weightage)
