

**20P353**

(Pages: 1)

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2021**

(CBCSS-PG)

(Regular/Supplementary/Improvement)

**CC19P GEL3 C09 - IGNEOUS AND METAMORPHIC PETROLOGY**

(Applied Geology)

(2019 Admission onwards)

Time: Three Hours

Maximum: 30 Weightage

I. Short answer type questions. Answer any *four* questions.

1. Bowen's Discontinuous reaction series and its significance
2. Liquidus and solidus
3. Genetic significance of porphyritic texture
4. Pegmatite
5. ACF diagram
6. Polymetamorphism
7. Metamorphic differentiation

**(4 × 2 = 8 Weightage)**

II. Short essay questions. Answer any *four* questions.

8. Quaternary system: Di-An-Ab-Fo
9. Streckeisen classification of ultramafic rocks.
10. Petrogenesis of granites.
11. Metamorphic facies.
12. Role of fluids in metamorphism.
13. Plate tectonics and metamorphic processes.
14. Migmatites.

**(4 × 3 = 12 Weightage)**

III. Long essay. Answer any *two* questions.

15. Crystallisation and melting sequence in Albite-anorthite-orthoclase system
16. Significance of isotopic studies in the petrogenesis of igneous rocks.
17. Petrogenetic significance of metamorphic textures.
18. Regional metamorphism of carbonate rocks.

**(2 × 5 = 10 Weightage)**

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