

Roll No.

--	--	--	--	--	--	--	--

25-GE-22

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION
MAY - JUNE 2025**

GEOLOGY

Paper - II

[Igneous and Metamorphic Petrology]

[Max. Marks : 75]

[Time : 3:00 Hrs.]

[Min. Marks : 26]

Note : Candidate should write his/her Roll Number at the prescribed space on the question paper.
Student should not write anything on question paper.
Attempt all five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 What is Phase Rule ? Describe the Bi-component (Ab-An) system.

OR

Write short notes on the following -

- i) Magma its composition and origin.
- ii) Magmatic differentiation and assimilation.

Q. 2 Describe the IUGS classification of Plutonic Igneous rocks.

OR

Write short notes on -

- i) Bowen Reaction series.
- ii) Texture of Igneous rocks.

Q. 3 Describe Indian occurrence, petrography and origin of Basalt.

OR

Write short notes on the following -

- i) Nepheline syenite (Petrography and Indian Occurrences).
- ii) Carbonatite (Petrography and Indian Occurrences).

Q. 4 Describe the classification of Metamorphic Rocks.

P.T.O.

OR

Write short notes on the following -

- i) Agents of Metamorphism.
- ii) Structures of Metamorphic rocks.

Q. 5 What is Metamorphic Facies ? Describe its classification.

OR

Write short notes on the following -

- i) Metasomatism and its types.
- ii) Indian Occurrence and Petrography of Schist and Gneiss.

—○—