

M.Sc. (Part-I) Semester-II (CBCS Scheme) Examination
GEOLOGY
(Igneous Petrology)
Paper-V

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) All questions are compulsory and carry equal marks.

(2) Draw well labelled diagrams wherever necessary.

1. Give an account of various types structures of igneous rocks and their genetic significance.

OR

Write in detail about the mode of emplacement of igneous bodies.

2. Give an account of the following :

- (a) Johanson classification.
- (b) IUGS classification.

OR

- (c) Niggli values.
- (d) Petrographic Provinces.

3. Describe in detail about the introduction to Mantle petrology and mantle metasomatism.

OR

Describe in detail about the factors affecting magma and evolution of magma.

4. Describe in brief :

- (a) Phase equilibrium of ternary silicate system.
- (b) Partial melting.

OR

- (c) Crystal fractionation.
- (d) Crustal contamination.

5. Describe the following :

- (a) Petrogenesis of Ophiolites.
- (b) Petrogenesis of Carbonatites.

OR

- (c) Petrogenesis of Lamprophyres.
- (d) Petrogenesis of Kimberlites.

