

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 6563 HC

Unique Paper Code : 32191301

Name of the Paper : Igneous Petrology

Name of the Course : B.Sc. (H) Geology

Semester : III

Duration : 3 Hours

Maximum Marks : 70

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
 2. All questions carry equal marks.
 3. Answer any five questions.
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1. How is magma generated? Discuss its physical and chemical characteristics.
 2. Explain various processes of crystal fractionation.
 3. What do you understand by textures and microstructures? Discuss textures found in volcanic rocks.
 4. Distinguish between :
(a) Andesite and Dacite

(b) Perthite and Antiperthite

(c) Gravity settling and Equilibrium crystallization

5. Write short notes on the following :-

(a) Deccan Traps

(b) Diopside-Anorthite System

(c) Ocean Island Basalt

6. Write short notes on

(a) Xenoliths

(b) Bowen's Reaction Series

(c) Lamproites

7. Explain the process of magmatic differentiation. Comment upon partial melting.

8. What do you understand by granite/granitoids? Discuss classification of granite with special reference to classical classification.