



(5421)

2009-2010
 M.Sc. (II SEMESTER) EXAMINATION
 APPLIED GEOLOGY
 IGNEOUS AND METAMORPHIC PETROLOGY
 (GLM-8005)

Maximum Marks: 70

Duration: Two Hours

Note Answer all the questions.

1 Explain the terms "Primary" , "Parental" and "Primitive" as applied to basaltic magma and discuss the petrogenesis of primary basaltic magma. (18)

OR

1' ✓ Describe briefly various criteria used for classification of igneous rocks. Discuss the IUGS classification for basic plutonic igneous rocks.

2 Discuss with diagram the course of crystallization in the Diopside-Anorthite-Albite system and its petrogenetic significance. (17)

3 Describe the greenschist facies under the following heads: (18)

- (a) Characteristic minerals
- (b) Subdivision into subfacies/zones and their representation by AFM diagram.
- (c) Pressure-temperature conditions of the greenchist facies.

4 Discuss with diagram the regional metamorphism of pelitic rocks? (17)

OR

4' Write explanatory notes on the following:-

- (a) Metamorphic differentiation
- (b) Paired metamorphic belts.


