

Roll No. ....

Total Pages : 2

**CMDQ/D-23**

**5211**

## **IGNEOUS PETROLOGY**

Paper–GT–503

Time allowed : 3 Hours]

[Maximum Marks : 100

**Note :** Attempt **five** questions in all, selecting **one** question from each unit. Question No. **1** is compulsory. All questions carry equal marks.

### **Compulsory Questions**

1. Write notes on the following:

- (i) Liquid Immiscibility (ii) Intermediate rocks  
(iii) Phase diagrams (iv) Intraplate magmatism.

### **UNIT-I**

2. Discuss the role of fractional crystallization in magma generation.  
3. What is magma mixing and assimilation? How these affect the magma types?

### **UNIT-II**

4. What is meant by CIPW? How CIPW norm are calculated?  
5. Explain the occurrence of igneous rocks with suitable examples.

### **UNIT-III**

6. Discuss about the Rb-Sr isotope evolution in igneous rocks.  
7. Discuss about the Sm-Nd systematics as petrogenetic indicators.

### **UNIT-IV**

8. Describe about the magmatism at destructive plate margin.  
9. Write an explanatory note on “Ocean floor magmatism”.