

M.Sc. (Geology) (CBCS Pattern) Sem-I  
**PSCGEOT02 - Igneous Petrology Paper-II**

P. Pages : 1

Time : Three Hours



**GUG/W/22/11163**

Max. Marks : 80

- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw neat sketches wherever necessary.

1. Describe in detail mafic dyke swarms and layered complexes.

**OR**

Write short notes on-

- Mantle metasomatism
- Factors controlling evolution of magma
- Plume magmatism
- Continental Rifts

2. Describe in detail partial melting (batch and fractional melting)

**OR**

Write short notes on-

- Liquid immiscibility
- Dynamic melting
- Crystallisation of magma
- Assimilation

3. Describe in detail different textures of igneous rocks.

**OR**

Write short notes on-

- TAS diagrams
- Saturation index
- Sheet jointing
- Columnar structure

4. Describe in detail Petrology and petrogenesis of komatiite.

**OR**

Write short notes on-

- Weight Norm
- Petrology of ultramafic rocks
- Petrogenesis of granite.
- Petrology of anorthosite

5. Write short notes-

- Hot spots
- Islands Arcs
- Differentiation
- Eutectic point
- Alteration Index
- AFM Diagram
- Cation norm.
- Alkaline rocks

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