

B.Sc. (C.B.C.S. Pattern) Sem-III  
**USGEOT05 - Geology Paper-I : Igneous Petrology**

P. Pages : 1

Time : Three Hours



**GUG/S/19/11608**

Max. Marks : 50

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

1. What are rocks? Describe its classification and add a note on rock cycle.

**OR**

Give brief account of the following:-

- a) Batholith & Lopolith.                      b) Sills and Dykes.

2. Give a brief account of mineralogical classification of igneous rocks.

**OR**

Write notes on the following:-

- a) Porphyritic and Poikilitic texture.  
b) Mineralogical characteristics of acidic Igneous rocks.

3. Give an account of Bowen's reaction series.

**OR**

Write notes on the following.

- a) Composition of magma.                      b) Assimilation and Hybrid rock.

4. Describe crystallization of Bicomponent magma showing eutectic relationship.

**OR**

Write notes on the following:-

- a) Crystallization of Uni-component magma.  
b) Concept of system phase.

5. Write on each of the following in not more than two sentences. (Solve **any ten**)

- a) Petrology
- b) Ropy lava
- c) Vesicular structure
- d) Name any two ultrabasic igneous rocks
- e) Name any two minerals of granite
- f) Name any two micro structures of igneous rocks.
- g) Define magmatic differentiation
- h) Gravity transfer
- i) Definition of magma
- j) Phase
- k) Chemical potential
- l) Phase rule

\*\*\*\*\*