

B.Sc. CBCS Pattern Semester-III  
**USGEOT05 - Geology Paper-I (Igneous Petrology)**

P. Pages : 1

Time : Three Hours



**GUG/W/23/11608**

Max. Marks : 50

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

1. Describe in brief discordant forms of igneous rocks. **10**

**OR**

Write short notes on:

- a) Vesicular and Amygdaloidal structure.
- b) Rock cycle.

2. Give an account of Mineralogical and chemical classification of igneous rocks. **10**

**OR**

Write short notes on:

- a) Porphyritic texture and Poikilitic texture.
- b) Intergrowth textures.

3. Describe in detail Bowen's reaction series. **10**

**OR**

Write short notes on:

- a) Fractional crystallization.
- b) Liquid immiscibility.

4. Discuss the crystallization of a Unicomponent magma. **10**

**OR**

Write short notes on:

- a) Eutectic crystallization.
- b) Phase rule and phase equilibria.

5. Write the following in not more than two sentences solve **any ten**. **10**

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|--------------------------|-------------------------|
| a) Petrology.            | b) Pahoehoe Lava.       |
| c) Phacolith.            | d) Holohyaline rock.    |
| e) Over-saturated rocks. | f) Monomineralic rocks. |
| g) Magma.                | h) Assimilation.        |
| i) Filter pressing.      | j) Phase.               |
| k) System.               | l) Chemical potential.  |

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