

Bachelor of Science (B.Sc.) Semester—III (C.B.S.) Examination

GEOLOGY (Igneous Petrology)

Paper—I

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.

(2) Draw neat sketches wherever necessary.

1. Describe the following :

- (A) Classification of rocks
- (B) Petrogenic cycle

OR

Describe the following :

- (C) Laccolith and Lopolith
- (D) Batholith

2. Describe the following :

- (A) Porphyritic texture and Poikilitic texture.
- (B) Intergrowth textures.

OR

Describe the following :

- (C) Reaction structure
- (D) Equigranular textures.

3. (A) Explain the process of crystallisation of a unicomponent magma.

OR

(B) Give a brief account of mode of occurrence and mineralogy of the following :

- (i) Granites and granodiorites
- (ii) Syenites
- (iii) Gabbros
- (iv) Dunites.

4. Describe in detail Bowen's reaction series.

OR

Explain the crystallisation of a bi-component magma exhibiting eutectic relationship.

5. Write on the following in not more than two sentences (solve any ten)-

- (A) Petrology
- (B) Pahoehoe Lava
- (C) Phacolith
- (D) Holohyaline rock
- (E) Over-saturated rocks
- (F) Monomineralic rocks
- (G) Magma
- (H) Give equation of phase rule
- (I) Name any two volcanic rocks
- (J) Liquid immiscibility
- (K) Assimilation
- (L) Filter pressing