

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

GEOLOGY

(Igneous Petrology)

Paper—I

Time : Three Hours]

[Full Marks : 50]

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

(2) Draw neat sketches wherever necessary.

1. Describe the following :

- (A) Rock cycle.
- (B) Ring dykes and Cone sheets.

OR

Write detailed notes on :

- (A) Concordant intrusions in geologically simple areas.
- (B) Batholith.

2. Describe the following :

- (A) Shand and Holmes' classification.
- (B) Columnar structure.

OR

Describe the following :

- (A) Block lava and ropy lava.
- (B) Vesicular and amygdaloidal structure.

3. Describe the mineralogy, texture and mode of occurrence of the following :

- (A) Gabbro.
- (B) Basalt.
- (C) Granite.
- (D) Rhyolite.

OR

Describe the mineralogy, texture and mode of occurrence of the following :

- (E) Dunite.
- (F) Pegmatite.
- (G) Trachyte.
- (H) Obsidian.

4. Describe in brief :

- (A) Continuous reaction series.
- (B) Discontinuous reaction series.

OR

Describe the following :

- (A) Assimilation.
- (B) Fractional Crystallization.

5. Write on the following in not more than **two** sentences (solve any **TEN**) :

- (A) Primary rocks
- (B) Aa lava
- (C) Multiple intrusion
- (D) Phenocryst
- (E) Leucocratic rocks
- (F) Panidiomorphic texture
- (G) Metastable region
- (H) Magma
- (I) Name any two Plutonic rocks
- (J) Eutectic point
- (K) Hybrid rocks
- (L) Gravitational differentiation.