

NTK/KW/15 – 5833

**Third Semester B. Sc. (Part - II)
Examination**

GEOLOGY

Paper - I

(Igneous Petrology)

Time : Three Hours]

[Max. Marks : 50

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

(2) Draw neat sketches wherever necessary.

1. Describe the following :—

- (A) Sill,
- (B) Laccolith,
- (C) Phacolith,
- (D) Lopolith.

OR

Describe the following :—

- (E) Dyke,
- (F) Volcanic neck,
- (G) Cone-sheets,
- (H) Ring dykes.

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Contd.

2. (A) Describe structures of igneous rocks.

OR

Write notes on the following :

- (B) CIPW classification,
- (C) 'Shand and Holmes' classification.

3. Describe the process of crystallization of Unicomponent magma with neat diagram.

OR

Describe in detail mineralogical characteristics of dolerite, lamprophyre, granite and dunite.

4. Give a brief account of Bowen's reaction series.

OR

Discuss in detail the crystallization of binary magma.

5. Write on the following in not more than two sentences

(Any **ten**) :—

- (A) Plutonic rocks,
- (B) Metamorphic rocks,
- (C) Volcanic rocks,
- (D) Phenocryst,
- (E) Pillow lava,
- (F) Corona,
- (G) Magma.

- (H) Phase rule,
- (I) Mineral composition of basalt,
- (J) Syntexis,
- (K) Gravity differentiation,
- (L) Differentiation by crystallization.