

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) Syntaxis,
- (K) Gravity differentiation,
- (L) Differentiation by crystallization.