

PE-282-CV-19
M.Sc. GEOLOGY (2nd Semester)
Examination, June 2022
IGNEOUS PETROLOGY

Time : Three Hours]

[Maximum Marks : 80
[Minimum Pass Marks : 29

Note : Answer from both the Sections as directed. The figures in the right-hand margin indicate marks.

Section-A

1. Answer the following short answer questions:

1x10=10

- (a) What are the types of Magma.
- (b) Write name of two magnetic differentiation process.
- (c) Define petrographic province.
- (d) Write down two criterions for igneous classification.
- (e) What is binary crystallization.
- (f) What do you mean by cotectic line.
- (g) What do you mean by plateau basalt.
- (h) What is the importance of Kimberlitic.
- (i) What is principal Mineral in carbonatite.
- (j) Define the term 'Pluton'.

2. Answer the following short type questions:

2x5=10

- (a) Define magnetic differentiation.
- (b) Define petrographic provinces.
- (c) Draw equilibrium diagram for Diopside-Albite-Anorthite.
- (d) Write a note on Distribution of Kimberlitic in India.
- (e) Write a note on subduction zone activities.

Section-B

12x5=60

Answer the following Long-Answer questions:

3. Write a note on composition of primary magma.

OR

Write a brief note on magnetic differentiation.

4. Write a note on magna mixing.

OR

Give classification of igneous rocks.

5. Describe the crystallization of tricomponent magma ic, Diopside-Albite-Anorthite.

OR

Describe the crystallization of Albite-Anorthite 'bearing magma.

6. Write a note on petrogenetic study of peridotite rock in India.

OR

Write a note on petrogenetic study of Anorthosite rock in India.

7. Write a note on Mid-oceanic-ridges & volcanism.

OR

Write a note on igneous activities related to subduction zones.