

18U522

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Name:

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCBCSS-UG)

(Regular/Supplementary/Improvement)

CC15U GL5 B11 - IGNEOUS PETROLOGY

(Geology - Core Course)

(2015 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

Draw neat sketches wherever necessary

Part A

Answer *all* questions in one word or one sentence each.

1. The mafic minerals of peridotite.
2. Igneous texture composed partly of crystals and partly of glass.
3. A directive texture in which feldspar laths are parallel to the direction of lava flow.
4. Vesicles of volcanic rock filled with secondary minerals.
5. Process by which foreign rock material is incorporated in magma.
6. A microstructure showing ball like segregations.
7. Name a completely glassy rock of acidic composition.
8. An igneous rock essentially contains potash feldspar and oligoclase.
9. Diagrams used to visualize the chemical and mineral relationships in consanguineous series of igneous rocks.
10. The volcanic equivalent of gabbro.

(10 x 1 = 10 Marks)

Part B (Short answer type questions)

Answer any *ten* questions. Each question carries 2 marks.

11. Primary magma.
12. Plutonic rocks.
13. Ropy lava.
14. Mural joint.
15. Perlitic fracture.
16. Pillow structure.
17. Granularity.
18. Pegmatite.
19. Ophitic texture.

20. Eutectics.
21. Colour index.
22. Anorthosites.

(10 x 2 = 20 Marks)

Part C (Paragraph type questions)

Answer any *five* questions. Each question carries 6 marks.

23. Fractional crystallization of magma.
24. Equigranular textures.
25. Pyroclastic deposits.
26. Bowen's reaction series.
27. Crystallization of ternary magmas.
28. CIPW classification.
29. Porphyritic texture.
30. Origin of lamprophyres.

(5 x 6 = 30 Marks)

Part D (Essay type questions)

Answer any *two* questions. Each question carries 10 marks.

31. Describe the forms of intrusive igneous rocks.
32. Explain Tyrrell's classification of igneous rocks bringing out its merits and demerits.
33. Explain the crystallization of Albite-Anorthite system.
34. Give an account of texture, mineralogy, classification and mode of occurrence of granites.

(2 x 10 = 20 Marks)
