

**15U522**

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Name: .....

Reg. No.....

**FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, OCTOBER 2017**

(CUCBCSS-UG)

**CC15U GL5 B11- IGNEOUS PETROLOGY**

(Geology - Core Course)

(2015-Admission Regular)

Time: 3 Hours

Maximum: 80 Marks

**Part-A**

*Draw neat diagrams wherever necessary.*

**Answer all questions. Each questions carries one marks.**

1. A mushroom shaped intrusive igneous body
2. Type of crystallization shown by plagioclase feldspar
3. Texture seen in gabbro
4. Number of degrees of freedom at the eutectic point in Diopside-Anorthite system
5. A mineral that normally disappear by reaction during progressive crystallization but appearing towards the final stages of magmatic crystallization
6. The branch of petrology that deals with the genesis of rocks is .....
7. An igneous rock in which the  $Al_2O_3$  content is greater than the content of  $Na_2O+K_2O+CaO$
8. First mineral to crystallize in the continuous reaction series is .....
9. A very coarse grained igneous plutonic rock with granitic composition.
10. A rock with alkali feldspar as the essential minerals

**(10 x1 =10 marks)**

**Part-B**

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

11. Phaccolith
12. Porphyritic texture
13. Normal zoning
14. Consanguinity
15. Eutectic crystallization
16. Colour index
17. Reaction pair

18. Harker Variation diagram
19. Dunite
20. Pegmatites
21. Liquid Immiscibility
22. Unicomponent magma

**(10 x 2 = 20 marks)**

**Part-C**

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

23. Incongruent melting
24. Crystallinity
25. Directive textures
26. Merits and demerits of CIPW classification
27. Discordant igneous forms
28. Syenite
29. Fractional crystallization
30. Diopside-Albite-Anorthite system

**(5 x 6 = 30 marks)**

**Part-D**

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

31. Describe and discuss Bowen's Reaction principle bringing out its significance in the study of the genesis of igneous rocks.
32. Explain with neat sketches the different textures of igneous rocks
33. Write an essay on texture, mineralogy, classification and mode of occurrence of granites
34. Write an essay on IUGS-QAP classification of igneous rocks

**(2 x 10 = 20 marks)**

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