16U522 (Pages: 2) Name: ……

Reg. No..……

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(CUCBCSS-UG)

CC15U GL5 B11 - IGNEOUS PETROLOGY

(Geology - Core Course)

(2015-Admission onwards)

Time: Three Hours Maximum: 80 Marks

PART A

Answer ***all*** questions. Each question carries 1 mark.

1. Most abundant volcanic rock on earth.
2. A rock essentially made up of grains having diameter greater than 1cm.
3. A tabular concordant intrusive form.
4. Joints which are common in granites.
5. Rocks in which molar alumina exceeds sum of molar K_2O, Na_2O and CaO.
6. An ultramafic rock which is not ultrabasic.
7. Volcanic equivalent of tonalite.
8. Characteristic minerals in peridotite.
9. Mineral composition of rock derived from its chemical composition.
10. Intergrowth between vermicular quartz and plagioclase.

(10 x 1 = 10 Marks)

PART B

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

11. Parental magma.
12. Lava flows.
13. Devitrification.
14. Colour index.
15. Eutectic crystallization.
16. Incongruent melting.
17. Assimilation.
18. Variation diagram.
19. Alkaline rocks.
20. Dunite.
21. Liquid immiscibility.
22. Anorthosite.

(10 x 2 = 20 Marks)

PART C

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

23. Concordant forms.
24. Structures in igneous rocks.
25. Tyrrel's tabular classification.

26. Fractional crystallization.
27. Bowen’s reaction series.
28. Lamprophyres.
29. Discordant forms.
30. Pyroclastic deposits.

(5 x 6 = 30 Marks)

PART D

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

31. Describe the various textures in igneous rocks.
32. Explain the IUGS classification for plutonic rock. Add a note on the differentiation between diorite and gabbro.
33. Describe the crystallization sequence in forsterite-silica system.
34. Describe the mineralogy, texture, classification and mode of occurrence of granites.

(2 x 10 = 20 Marks)

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