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SIXTH SEMESTER RSc DEGREE EXAMINATION MARCH/ADDIT 2015

	ZX 1. J		WILDIER D.SC	. DEGILEE		AMINATION, MARCH/APRIL 2015				
	(UG-CCSS)									
	Core Course—Geology									
	GL 6B 16—IGNEOUS PETROLOGY									
E: Three Hours Maximum: 30 Weightage										
L. Objective type questions (Answer all questions):										
	Name the following:—									
	1	Stock	with circular outco	op.						
2 Igneous rocks composed of less than 45% silica										
	3	The ir	ncongruently melti	ng intermediate	mi	neral in the forsterite-silica system				
	4	Textu	re of equigranular	rock dominated	l by	euhedral grains.				
C	hoos	se the r	nost appropriate a	nswer:						
	5 Anorthite content of plagioclase in gabbro is:									
		(a)	> 50 %.	(b)	> 60 %.				
		(c)	> 70 %.	(d)	> 80 %.				
	6 Which among the following is not a normative mineral?									
		(a)	Quartz.	(b)	Orthoclase.				
		(c)	Biotite.	(d)	Diopside.				
7 Minimum degree of freedom possible in albite-anorthite-diopside ternary system is :										
		(a)	3.	(b)	2.				
		(c)	1.	(d)	0.				
	8 The igneous rock which is made up of more than 90% alkali feldspar:									
		(a)	Granite.	(b)	Lamprophyre.				
		(c)	Diorite.	(d)	Syenite.				
						Turn over				

Fill in the blanks:

9 is the term used to denote mineral composition of a rock by v	volume.
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- 10 structure divides the rock into pillar like blocks.
- 11 Porphyritic texture in which the phenocrysts cluster together is ———.
- 12 Crystallinity of rocks made up of crystals and glass is -

 $(12 \times \frac{1}{4} = 3 \text{ weigh})$

II. Short Answer question (Answer all questions):

- 13 Primary magma.
- 14 Dyke.
- 15 Perthite.
- 16 Trachytic texture.
- 17 Colour index.
- 18 Pegmatite.
- 19 Liquid immiscibility.
- 20 Pyroclastics.
- 21 Anorthosite.

 $(9 \times 1 = 9 \text{ weig})$

III. Short Essays (Answer any five):

- 22 Concordant forms.
- 23 Lava flows.
- 24 Granularity.
- 25 Inequigranular texture.
- 26 Classification of granites.
- 27 Variation diagram and their significance.
- 28 Lamprophyres.

 $(5 \times 2 = 10 \text{ weight$

IV. Essay Questions (Answer any two):

- 29 Give an account of the different structures in igneous rocks. Add a note on their signi-
- 30 Describe the IUGS-QAP classification for plutonic rocks.
- 31 Briefly describe the various crystallisation and melting sequence in Diopside-Anorthite

 $(2 \times 4 = 8 \text{ wei})$