Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III (NEW) - EXAMINATION - SUMMER 2017

Subject Code: 2132203 Date: 09/06/2017

Subject Name: Geology-I

Time: 10:30 AM to 01:00 PM Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

			MARKS
Q.1		Short Questions	14
_	1	Define Geology. Enlist various branches of geology.	01
	2	Draw a neat sketch of internal structure of Earth.	01
	3	Differentiate convergent and divergent boundaries of plate tectonics.	01
	4	What is erosion?	01
	5	What are the causes of glacier erosion?	01
	6	Show the zones of ground water occurrence by neat sketch.	01
	7	Define aquifers.	01
	8	Discuss any two physical properties of minerals.	01
	9	Which are the principle agents of physical weathering?	01
	10	Briefly discuss properties of Gypsum,	01
	11	Define 'True dip' and 'Apparent dip'.	01
	12	Differentiate fold and fault	01
	13	State any one principle of stratigraphy.	01
0.0	14	Enlist advantages of drilling methods.	01
Q.2	(a)	What is the scope of geology in mining engineering?	03
	(b)	Enumerate group of planets in solar system.	04
	(c)	What is plate tectonics? Describe its types in detail. OR	07
	(c)	Discuss in detail continental drift and mid oceanic ridges.	07
Q.3	(c) (a)	What is the importance of weathering in civil engineering?	03
Q.S	(b)	List out industrial minerals. Discuss properties of any one industrial mineral.	04
	(c)	Explain in detail process of chemical weathering. OR	07
Q.3	(a)	Explain luster, cleavage and hardness.	03
	(b)	How do river cause erosion, transportation and deposition?	04
	(c)	What are rock forming minerals? Give the physical properties of Quartz, Orthoclase and Muscovite.	07
Q.4		Describe criteria for recognition of fold in field.	03
	(b)	What is an out crop? Discuss factors which help in constructing the geological section.	04
	(c)	Define fault. Give classification of fault with neat sketch OR	07
Q.4	(a)	Explain briefly characteristics of geological map.	03
	(b)	Discuss dip and strike with the help of sketch.	04

	(c)	Describe the rocks of Vindhyan super group in detail.	07
Q.5	(a)	Give economic importance of Dharwar rocks.	03
	(b)	Classify the different types of unconformities.	04
	(c)	Which are the core drilling methods? Discuss trenching,	07
		and shaft sinking.	
		OR	
Q.5	(a)	State limitations of subsurface exploration.	03
	(b)	Discuss types of aerial photographs.	04
	(c)	Write a short note on remote sensing	07
