

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- IV (New) EXAMINATION – WINTER 2019

Subject Code: 2142203

Date: 14/12/2019

Subject Name: Geology-II

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	(a) Differentiate mountains on the basis of their genesis.	03
	(b) Write a note on Seismic Zones of India.	04
	(c) What is a volcano? Describe different types of volcanoes.	07
Q.2	(a) Define an earthquake. How are earthquakes measured?	03
	(b) Give the difference between a fault and a fold.	04
	(c) Describe how the igneous rocks formed?	07
OR		
	(c) Explain the characteristics and uses of (i) Granite (ii) Marble (iii) Limestone	07
Q.3	(a) Define the term - magma and lava. Describe dykes and sills.	03
	(b) Describe the different types of joints with sketches.	04
	(c) What is an unconformity? Describe different types of unconformities with sketches.	07
OR		
Q.3	(a) Write is multi-generation folding?	03
	(b) Describe the "Jurassics of Kutch".	04
	(c) Discuss the rock types and economic importance of Gondwana Supergroup.	07
Q.4	(a) Describe how sedimentary rocks are formed.	03
	(b) Discuss the role of Petrology in mining engineering.	04
	(c) Describe various textures observed in metamorphic rocks.	07
OR		
Q.4	(a) Give the classification of sedimentary rocks on the basis of their origin.	03
	(b) Describe the textures in sedimentary rocks.	04
	(c) Describe different agents and kinds of metamorphism.	07
Q.5	(a) Write a note on soft ground tunneling.	03
	(b) What is a seismic design of engineering structures?	04
	(c) Briefly discuss the geological factors affecting the design of a dam.	07
OR		
Q.5	(a) Define the terms lineation and schistosity.	03
	(b) Write the lithology of Marwar Supergroup and Cambrians of salt range.	04
	(c) Discuss how the geological factors influence the selection of tunnel alignments.	07
