Seat No.:	Enrolment No.
Seat No	Emoniem No

Subject Code: 140604

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV • EXAMINATION – SUMMER • 2014

Date: 27-06-2014

	U	Names Engineering Coaless	
Ti	•	Name: Engineering Geology 0:30 am - 01:00 pm Total Marks: 70	
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Define engineering geology. Explain technical responsibilities of a civil engineer and an engineering geologist in civil engineering projects.	07
	(b)	Define mineral. Describe in detail Moh's scale of hardness and cleavage as physical properties of minerals.	07
Q.2	(a)	Explain (1) Magnitude and Intensity of an earthquake. (2)Branches of geology important in civil engineering.	07
	(b)	What are geological agents? Describe in detail the mechanical weathering of rocks.	07
		OR	
	(b)	Define the terms weathering, erosion and denudation. Explain river meandering.	07
Q.3	(a)	Define crystal. Enlist elements of a crystal. Write note on any one crystallographic system.	07
	(b)	What is an earthquake? Describe the types of earthquake waves and concepts of plate tectonics.	07
		OR	
Q.3	(a) (b)	Explain dip and strike, normal and reverse faults with neat sketches. What are folds? Explain various terminology of a typical fold with neat sketches.	
Q.4	(a)	What are sedimentary rocks? Describe the formation of clastic sedimentary rock and write tabular classification of sedimentary rocks.	07
	(b)	Describe the factors and kinds of metamorphism. OR	07
Q.4	(a)	Define and explain (1) Equigranular and Ophitic textures (2) Dykes (3) Batholith.	07
	(b)	Write notes on rock cycle and sand dunes.	07
Q.5	(a) (b)	Enlist and explain briefly the geological criteria for site selection of dam. What does landslide mean? State various factors affecting landslides. OR	07 07
Q.5	(a)	Porosity and Permeability.	04
£	(b)	Streak and forms as physical properties of minerals.	06
	(c)	Explain remote sensing and geographical positioning system.	04
