Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER - IV • EXAMINATION - WINTER 2012

Date: 01/01/2013

Subject code: 140604

	-	Name: Engineering Geology 2.30 pm - 05.00 pm Total Marks: 70	
		tions:	
	1. 2.	Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What are minerals? How minerals are identified in the field? Add note on cleavage of a mineral.	07
	(b)	What is meant by weathering? Describe in details the process and types of rock weathering.	07
Q.2	(a)	Define geology. Enlist branches of geology. Discuss in brief the scope of geology.	07
	(b)	Define crystal? Explain the three types of symmetries commonly present in crystals.	07
		OR	
	(b)	What is an earthquake? How it is caused? Discuss the effects of earthquakes with such examples from India.	07
Q.3	(a)	Write detail notes on river meandering and sand dunes.	07
	(b)	Write short notes on (i) Dip and Strike (ii) Rock cycle	07
7 2	(a)	OR What are mades? How can they be breadly grouped? Discuss the immentance of	07
Q.3	(a)	What are rocks? How can they be broadly grouped? Discuss the importance of rocks in Civil Engineering.	U/
	(b)	Write short notes on : (i) Columnar joints (ii) Syncline and Anticline.	07
Q.4	(a)	What are the sedimentary rocks? How are they formed? Describe in details the classification of sedimentary rocks.	07
	(b)	What are faults? Explain terminology of faults with neat sketches. OR	07
Q.4	(a)	Write short notes on : (i) Limbs and Axial plane of fold.(ii) Recumbent fold.	07
	(b)	Write short notes on : (i) Sources of Groundwater (ii) Causes of landslides.	07
Q.5	(a)	What is dam? List the types of dams? Discuss the role of geologist in site selection of dams.	07
	(b)	Write short notes on: (i) Tunnel through folded rocks (ii) Porosity and Permeability of rocks.	07
		OR	
Q.5	(a)	What is meant by remote sensing and geographical positioning system?	04
	(b)	Hardness and Fracture as physical properties of mineral.	06
	(c)	Factors of metamorphism.	04
