Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV • EXAMINATION - WINTER • 2014

	•	Code: 140604 Date: 05-01-20 Name: Engineering Geology)15
Tir	ne: 0 ructio	02:30 pm - 05:00 pm Total Marks:	70
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Define geology. Give the significance of study of geological science in civil engineering practices.	07
	(b)	Define mineral and rock. Describe three important physical properties of minerals.	07
Q.2	(a)	Enlist the different geological agents? Discuss about the weathering patterns observed in rocks.	07
	(b)	Explain how landslides can be controlled. OR	07
	(b)	Drawing a diagram, describe the various parts of a typical fold.	07
Q.3	(a) (b)	State the different applications of remote sensing and GIS in civil engineering. Describe the rock cycle.	07 07
Q.3	(a) (b)	What are sedimentary rocks? How are these rocks formed? What is metamorphism? Describe types of metamorphism with suitable illustrations.	07 07
Q.4	(a) (b)	Describe various sources of ground water. What is a dam? List their types. Critically explain the geological problems encountered during the construction of dams. OR	07 07
Q.4	(a) (b)	Discuss the role of porosity and permeability in occurrence of ground water. Narrate in detail the usefulness of geological maps and sections.	07 07
Q.5	(a) (b)	Describe the important geological properties of building stones. Explain the dip and strike of a bed and anticline and syncline with the help of sketches.	07 07
Q.5	(a) (b)	OR State the objects of geological investigations. Discuss on the need and importance of artificial recharging of ground water.	07 07
