Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER–I EXAMINATION – WINTER 2015

Subject Code: X10602 **Date: 30/12/2015**

Subject Name: Engineering Geology

Time: 10:30am to 01:00pm **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Each question carry equal marks (14 marks)**

Q.1	(a)	Explain functioning of rock cycle.	**07**
	(b)	Classify igneous rocks based on their depth of formation and silica content with suitable examples.	**07**
Q.2	(a)	Explain temperature and pressure as agents of rock metamorphism.	**07**
	(b)	Describe properties of hardness and cleavage in minerals with suitable examples.	**07**
Q.3	(a)	What are primary structures in rocks? Explain origin of bedding plane in sedimentary rocks.	**07**
	(b)	Write an illustrative note on dyke and sill.	**07**
Q.4	(a)	Explain role of temperature in mechanical weathering of rocks giving suitable examples.	**07**
	(b)	What are different preventive measures for landslide?	**07**
Q.5	(a)	Explain origin of sedimentary rocks and classify them with suitable examples.	**07**
	(b)	Discuss the merit and demerit; when dam is proposed on sedimentary rocks.	**07**
Q. 6	(a)	Explain porosity and permeability of rocks with suitable examples.	**07**
	(b)	Explain confined and unconfined aquifers.	**07**
Q. 7	(a)	What is a geological fault? Describe different components of a typical fault.	**07**
	(b)	Give an illustrative description of a typical fold.	**07**

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