Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER-I • EXAMINATION - WINTER • 2014

Subject Code: X10602 Date: 23-12-2014 **Subject Name: Engineering Geology** Time: 10:30 am - 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. Q.1 What is weathering of rocks? Describe the physical weathering of rocks giving 07 (a) example. **07** Describe the rock cycle with a neat sketch. **(b) Q.2** (a) Discuss the scope of Engineering Geology in Civil Engineering practices. 07 Describe three important physical properties of minerals with suitable illustrations. **(b)** 07 **Q.3** Define porosity and permeability of rocks. Describe the zones of ground water 07 (a) movement. How are sedimentary rocks formed? **07 (b) Q.4** (a) Describe the terminology of a typical fault with the help of a sketch. **07** Discuss the mechanism of folding in rocks. **(b)** 07 Q.5 (a) State the engineering properties of good building stones. **07** Classify the following rocks as per their origin: 07 **(b)** (i) Granite (ii) Sandstone (iv) Schist (iii) Marble (v) Shale (vi) Gabbro (vii) Basalt **Q.6** (a) Discuss the various applications of remote sensing and GIS techniques in Civil 07 Engineering. Explain outcrop, inlier, outlier, dip and strike of a bed with the help of neat **(b) 07** diagrams. **Q.7** What are landslides? State the causes of their occurrence. **07** (a) Discuss the pros and cons of a tunnel alignment passing through folded rock **07 (b)** formations.
