

GUJARAT TECHNOLOGICAL UNIVERSITY**PDDC - SEMESTER-I • EXAMINATION – SUMMER • 2014****Subject Code: X10602****Date: 17-06-2014****Subject Name: Engineering Geology****Time: 02:30 pm - 05:00 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** (a) Define the weathering of rocks. Describe the chemical weathering of rocks giving suitable illustrations. **07**
- (b) Define a mineral. Describe three important physical properties of minerals which help in their identification. **07**
- Q.2** (a) Narrate the importance of geology in civil engineering practices. **07**
- (b) Explain the factors and kinds of metamorphism. **07**
- Q.3** (a) State various applications of remote sensing techniques in civil engineering. **07**
- (b) Explain the significance of geological maps and sections. **07**
- Q.4** (a) Describe the electrical resistivity method of subsurface geological investigations. **07**
- (b) How are igneous rocks formed? Give their classification based on depth of origin. **07**
- Q.5** (a) Discuss the suitability of a tunnel alignment in faulted sequence of rocks. **07**
- (b) Describe different components of a typical fold. **07**
- Q.6** (a) Elaborate the zones of ground water movement. **07**
- (b) Describe the rock cycle with a neat sketch. **07**
- Q.7** (a) Explain the origin of sedimentary rocks. **07**
- (b) State how the landslides can be prevented. **07**
