

GUJARAT TECHNOLOGICAL UNIVERSITY**PDDC - Ist Semester–Examination – May/June- 2012****Subject code: X10602****Subject Name: ENGINEERING GEOLOGY****Date: 02/06/2012****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** (a) Describe any three important physical properties of minerals. **07**
 (b) Describe the disintegration of rocks, giving suitable examples. **07**
- Q.2** (a) Write notes on the following topics: **07**
 (i) Parts of a typical fold
 (ii) Mechanism of faulting
 (b) How are landslides caused? **07**
- OR**
- (b) Write a note on uses of remote sensing techniques in civil engineering. **07**
- Q.3** Write notes on the following topics:
 (a) Textures in Igneous rocks **07**
 (b) Factors and kinds of metamorphism **07**
- OR**
- Q.3** Write notes on the following topics:
 (a) Formation of sedimentary rocks **07**
 (b) Rock cycle **07**
- Q.4** Write on the following topics:
 (a) Outcrops, inliers and outliers **07**
 (b) Role of geology in civil engineering **07**
- OR**
- Q.4** (a) Describe the electrical resistivity method for subsurface geological investigation. **07**
 (b) Discuss the importance of geological maps and sections. **07**
- Q.5** (a) Describe the properties of a good building stone. **07**
 (b) Classify the following rocks as per their origin: **07**
 (i) Granite (ii) Limestone (iii) Marble (iv) Shale (v) Basalt (vi) Quartzite
 (vii) Sandstone
- OR**
- Q.5** (a) Narrate the merits and demerits of dam sites situated on faulted sequence of rock formations. **07**
 (b) Describe various sources of ground water. **07**
