

**GUJARAT TECHNOLOGICAL UNIVERSITY****B. E. Sem - IV Examination June- 2011****Subject code: 140604****Subject Name: Engineering Geology****Date: 15/06/2011****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 the Applications of Geology in Civil Engineering. **07**  
(b) Enlist and explain briefly the geological criteria for site selection of Dam. **07**

- Q.2** (a) Explain the processes most commonly involved in mechanical weathering **07**  
(b) What is Unconformity? Explain various types of unconformity. **07**

**OR**

- (b) Classify the Igneous rock on the base of Chemical composition and Textural characteristics **07**
- Q.3** (a) Draw and explain the following faults which may cause earthquake. **07**  
(1) Strike Slip  
(2) Normal  
(3) Thrust  
(b) Define Fold. Draw a neat sketch describing the fold and define Limb, Trough, Axis of fold and Crest **07**

**OR**

- Q.3** (a) Describe following properties of Mineral **07**  
(1) Luster (2) Colour (3) Cleavage (4) Fracture  
(b) Describe Fault phenomena and its terminologies with neat sketch **07**
- Q.4** (a) What is an aquifer? Explain various types of aquifers with sketch. **07**  
(b) What is River erosion? Explain various methods of river erosion. **07**

**OR**

- Q.4** (a) Enlist and explain the various information obtained by geological profile **07**  
(b) Describe surface and subsurface geological investigations **07**

- Q.5** (a) State the application of remote sensing in Geology **07**  
(b) Enlist and describe the various effects of earthquake. **07**

**OR**

- Q.5** (a) Write a short note on :- **07**  
(1) Outcrop  
(2) Permeability  
(b) What does landslide mean? state various factors affecting the landslides **07**

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