

GUJARAT TECHNOLOGICAL UNIVERSITY**B. E. Sem. – IV - Examination –June- 2011****Subject code: 142203****Subject Name: Geology - 2****Date:10/06/2011****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) Define earthquakes and tsunamis. Give a detailed account of origin of tectonic earthquakes and their distribution on globe. **07**
- (b) Give the classification of volcanoes based on composition and their distribution on globe. **07**

- Q.2** (a) What are Igneous rocks? How are they formed in nature? Explain the structures developed due to mobility of magma or lava. **07**
- (b) What is Non-clastic rock? Give the petrological characters and types of Limestone. **07**

OR

- (b) What is metamorphism? Write a note on factors responsible for it. **07**

- Q.3** (a) Explain, with the help of neat sketches, important textures of igneous rocks and also possible causes for their formation. **07**
- (b) Explain, the very common structures found in metamorphic rocks with a neat sketch. **07**

OR

- Q.3** (a) What is the difference between Fault and Joint? Give the classification of joints based on Geometry. **07**
- (b) How the sedimentary rocks are classified? Give the further classification of clastic rocks based on the average grain size of the sediments. **07**

- Q.4** (a) Which structural features of rocks of the dam sites are investigated? Describe with a neat sketches. **07**
- (b) Explain “Cambrians of Salt range”. **07**

OR

- Q.4** (a) Discuss critically role of groundwater conditions that influence the design, cost and stability of tunnels. **07**
- (b) Explain “Jurassic of Kutch”. **07**

- Q.5** (a) Write a note on “Cretaceous of Narbada valley”. **07**
- (b) Describe important characters of Deccan Traps of India. What is the stratigraphical significance of inter – trappean beds? **07**

OR

- Q.5** (a) Discuss the lithology, life and economical importance with reference to the Gondwana supergroup. **07**
- (b) Write a note on “Karewas of Kashmir”. **07**
