

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE SEM-III Examination May 2012****Subject code: 132203****Subject Name: Geology-1****Date: 08/05/2012****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) Explain the Internal Structure of the Earth as revealed by the seismological evidence with neat sketch. **07**
- (b) Define Geology. Give different branches of geology and its importance in the field of Mining engineering. **07**

- Q.2** (a) The Nebular Hypothesis for origin of the Earth. **07**
- (b) What is Mineral? Enlist Physical properties of Minerals. Explain Form, cleavage and fracture. **07**

**OR**

- (b) What is weathering? How minerals deposits are produced as an outcome of weathering? Explain with suitable examples. **07**

- Q.3** (a) Explain with neat sketch fault terminologies and Normal fault. **07**
- (b) Explain different parts of Fold with neat sketch. **07**

**OR**

- Q.3** (a) Explain Feldspar Group of minerals. **07**
- (b) Explain: River Meandering and Oxbow lake. **07**

- Q.4** (a) Describe the principles of stratigraphy. Explain the lithology, distribution and mining importance of Dharwar system. **07**
- (b) Explain: Unconformity and its types. **07**

**OR**

- Q.4** (a) Explain physical properties of Kyanite and Gypsum. **07**
- Q.4** (b) Explain: Classification of drilling methods in various geological conditions. **07**

- Q.5** (a) What is Remote sensing? Give advantage and limitation of satellite data. **07**
- (b) What is aerial photography? Explain types of aerial photography. **07**

**OR**

- Q.5** (a) Explain erosional and depositional work of ground water. **07**
- (b) Explain: geological classification of soils. **07**

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