

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 132203****Date: 18-12-2014****Subject Name: Geology - I****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)** What are the different branches of geology and how are they related to engineering application? **07**
- (b)** Enlist the physical properties of minerals and explain form and structure and hardness. **07**
- Q.2 (a)** What is weathering? Explain types of chemical weathering with example. **07**
- (b)** What is delta? Write a note about types of delta with figure. **07**
- OR**
- (b)** Describe the types of Sand dunes with diagram. **07**
- Q.3 (a)** Compare the physical properties of ore forming and industrial minerals. **07**
- (b)** Explain the peculiarities of pyroxene and amphibole mineral families. **07**
- OR**
- Q.3 (a)** Describe the physical properties of iron ore minerals. **07**
- (b)** Explain the principles of stratigraphy. **07**
- Q.4 (a)** Explain the typical fault terminology with figure. **07**
- (b)** Classify the fold on the basis of axial plane. **07**
- OR**
- Q.4 (a)** Explain two features of fold and fault recognition in the field. **07**
- (b)** Explain mohorovichic, Gutenberg discontinuity. **07**
- Q.5 (a)** Explain Delhi super group and Dharwar series. **07**
- (b)** What is drilling and classify different drilling methods. **07**
- OR**
- Q.5 (a)** What are the advantages and limitations of drilling? **07**
- (b)** Explain different methods of subsurface exploration. **07**
