

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering Sem. - IV - Examination – June- 2011

Subject code: 342202

Subject Name: Mining Geology - I

Date: 04/06/2011

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.
4. English version Authentic

- Q.1** (a) Define outcrop, strike and dip with neat diagram. What is the difference between true dip and apparent dip? **07**
- (b) Classify igneous rocks based on depth of formation and silica saturation. **07**
- Q.2** (a) Describe the interior of the earth with neat diagram. **07**
- (b) Differentiate Tetragonal, hexagonal and monoclinic crystal systems on the basis of their axial characters. **07**
- OR**
- (b) Explain how mechanical weathering of rocks helps in mineral enrichment. **07**
- Q.3** (a) What is soil? Discuss fertility, composition and texture in soil. **07**
- (b) Give an account of geological work of river. **07**
- OR**
- Q.3** (a) Describe tidal hypothesis for origin of earth **07**
- (b) Explain origin and distribution of volcanoes on planet earth. **07**
- Q.4** (a) Describe parts of a fold with neat diagram; also classify folds on the basis of position of axial plane. **07**
- (b) Discuss characteristic properties of sedimentary rocks. **07**
- OR**
- Q. 4** (a) Describe parts of a fault with neat figure. Explain how to recognize a fault in field. **07**
- (b) Explain what is unconformity? How unconformity is formed? Describe types of unconformity with neat figure. **07**
- Q.5** (a) Write a note on Carbon 14 cycle. **07**
- (b) Explain how earthquakes are generated and describe characteristics of P-waves and S-waves. **07**
- OR**
- Q.5** (a) Write a note on Hypsographic curve and its importance. **07**
- (b) Describe characteristic properties of metamorphic rocks. **07**

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