

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE – SEMESTER – VIII. EXAMINATION – WINTER 2016**

**Subject Code: 182207****Date: 24/10/2016****Subject Name: Geological Exploration of Mineral Deposits (Department Elective II)****Time: 02:30 PM to 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) Define Exploration. Write different application of exploration. **07**  
(b) List out different methods of exploration. Explain any two of them. **07**
- Q.2** (a) Differentiate between Surface exploration and sub-surface exploration. **07**  
(b) What is aerial photography and how it works? Write their uses in identification of geomorphology and structures. **07**
- OR**
- (b) What is remote sensing? Add note on vertical and oblique photographs. **07**
- Q.3** (a) Define boring. Write different principles and uses of boring. **07**  
(b) Differentiate between percussive drilling and rotary drilling. **07**
- OR**
- Q.3** (a) Explain various fishing tools and their uses. **07**  
(b) Define Coring. Explain double tube core barrel with sketch. **07**
- Q.4** (a) Describe characteristics and principles of stereoscopic images. **07**  
(b) Write short note on Underground mapping. **07**
- OR**
- Q.4** (a) Define geophysical exploration. Give name of the methods and explain any one of them in brief with sketch. **07**  
(b) Explain various instruments which are used in Reflection and Refraction surveys. **07**
- Q.5** (a) Explain the Lithological and stratigraphic guides to ores. **07**  
(b) Write note on scales of mapping. **07**
- OR**
- Q.5** (a) Explain : Bore hole deflection **07**  
(b) Describe different applicability and precautions in geochemical exploration. **07**

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