

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- VIII<sup>th</sup> SEMESTER-EXAMINATION – MAY- 2012****Subject code: 182207****Date: 08/05/2012****Subject Name: Geological Exploration of Mineral Deposits****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) What is exploration? Give the phases of exploration. **07**  
 (b) What are the general principles of geochemical prospecting? **07**
- Q.2** (a) What is aerial photography? Explain its application in identification of Geomorphology, Structures and Lithology. **07**  
 (b) Give the basic principles of exploration. **07**
- OR**
- (b) Write a note on remote sensing. **07**
- Q.3** (a) Explain Gravity methods with different instruments. **07**  
 (b) What are the applications of gravity methods in mineral exploration? **07**
- OR**
- Q.3** (a) Explain Magnetic methods of geophysical exploration and precautions during magnetic surveys. **07**  
 (b) Write about various fishing tools and their uses. **07**
- Q.4** (a) What is boring? Write a note on selection of site for boreholes. **07**  
 (b) What is coring? Explain core – barrels. **07**
- OR**
- Q.4** (a) Write a note on directional drilling. **07**  
 (b) Describe the electrical method used in geophysical exploration? Explain resistivity surveying. **07**
- Q.5** (a) Explain Regional and local guides to ore. **07**  
 (b) What is seismic method? List out the instruments used in it and its application In oil exploration. **07**
- OR**
- Q.5** (a) Explain Lithological and stratigraphic guides. **07**  
 (b) Write a note on mechanism of rotary – diamond drill. **07**

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