

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014**

**Subject Code: 182207****Date: 27-05-2014****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) Explain basic principle and condition of exploration. 07  
(b) What is geological mapping? Write a note on surface vs underground Mapping. 07
- Q-2. (a) What is prospecting? List out different prospecting exploration methods. Explain geological prospecting exploration. 07  
(b) Explain electrical log and radioactive log. 07
- OR**
- (b) Write a note on infra-red photographs. 07
- Q-3. (a) Define resistivity surveying. Explain Magnetic methods of geophysical exploration & precautions during magnetic surveys. 07  
(b) Explain litho-geochemical & bio- geochemical 07
- OR**
- Q-3. (a) Explain different instruments and methods used for gravity measurement for mineral deposits with reference to geophysical exploration. 07  
(b) Write a short note on Interpretation of seismic reflection data. 07
- Q-4. (a) Define coring. Add a note on wire line coring. 07  
(b) Write a note on rope drill. 07
- OR**
- Q-4. (a) Write a note on fishing tools. Give uses of it. 07  
(b) Define boring. Write a note on core-barrels. 07
- Q-5. (a) Write a short notes on: (1) Ringed targets (2) Intersting loci. 07  
(b) Write a note on physiographic ore guides in brief. 07
- OR**
- Q-5. (a) Write a note on bottoming and zoning of mineral deposits. 07  
(b) Write a note fracture patterns as guides in brief. 07

\*\*\*\*\*