

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – WINTER • 2014

Subject Code:182207

Date: 25-11-2014

Subject Name: Geological Exploration of Mineral Deposits

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 is exploration? Explain the basic principle of exploration. 07
- (b) Write a short note on Remote Sensing. 07

- Q.2 (a) Explain in brief various method of geochemical exploration. 07
- (b) What is aerial photography? Explain its application in identification of Geomorphology, Structure and Lithology? 07

OR

- (b) How is the surface exploration different from sub-surface exploration? 07

- Q.3 (a) What is geophysical exploration? Explain electric method of geophysical exploration in brief. 07
- (b) Explain gravity method with different instruments. 07

OR

- Q.3 (a) Explain in brief scale of mapping & underground mapping. 07
- (b) What is stereoscopic image? Describe principle & characteristics of stereoscopic images. 07

- Q.4 (a) Explain the seismic method of exploration, its data interpretation and its application. 07
- (b) What is boring? Write a note on the selection of site for boreholes. 07

OR

- Q.4 (a) What is the use of boring? Write a note on the principles of boring. 07
- (b) Explain magnetic methods of geophysical exploration and precautions during magnetic survey. 07

- Q.5 (a) What is coring? Explain Core- barrels. 07
- (b) Describe directional drilling. 07

OR

- Q.5 (a) Write a note on (1) Lithological & Stratigraphic guides 07
- (2) Regional & local guides.
- (b) Write a note on various fishing tools and their use. 07
