

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER • 2014****Subject Code: 132202****Date: 04-06-2014****Subject Name: Mine Development****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 are the important points considered for the site location of shaft? **07**
(b) Describe various types of shaft lining. **07**

- Q.2 (a)** Explain with the figure: ADIT, SHAFT, INCLINE & DECLINE. **07**
(b) What are the different methods to enter in to the shaft? **07**

OR

- (b)** Explain the conventional methods of drifting. **07**

- Q.3 (a)** Describe various blasting patterns used for drifting. **07**
(b) What are the benefits of trackless mining system. **07**

OR

- Q.3 (a)** Explain the importance of raise climbers for vertical development. **07**
(b) Write a note on side discharge loader. **07**

- Q.4 (a)** Describe the factors affecting size, gradient and shape of drivers and tunnels. **07**
(b) Explain the different types of loading machine and their specific use. **07**

OR

- Q.4 (a)** Explain long hole raising with its applicability, merits and demerits. **07**
(b) Explain the term : hanging wall, footwall, orepass, level interval, pillar. **07**

- Q.5** Write note on any two:- **14**
1. Rocker Shovel.
2. Load haul dump machine.
3. Tunnel boring machine.
4. Gathering arm loader.
5. Walling Scaffold and Rider.
