

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEM-III Examination-Dec.-2011

Subject code: 132202

Date: 24/12/2011

Subject Name: Mine Development

Time: 2.30 pm -5.00 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 the points considered before selecting a site for a shaft. [07]

b) Explain any one conventional method for vertical raise in the metal mines. [07]

Q.2

a) Explain various blasting patterns used for drifting. [07]

b) Give the various methods of entering into a deposit to be worked out by underground mining for approach to the ore body. Write an applicability, merits and demerits. [07]

OR

b) Explain: rocker shovel. [07]

Q.3

a) Write merits and demerits of inclined shafts. [07]

b) Write short note on tunnel boring machines. [07]

OR

a) Explain the methods of shape of tunnel with its merits and limitations. [07]

b) Explain why mechanized method of drifting is preferable over conventional method of drifting? [07]

Q.4

a) Explain: load haul dump machine [07]

b) Explain the working procedure of Gathering Arm Loader. [07]

OR

a) Write advantages of trackless mining system. [07]

b) Describe any two drilling patterns used in soft rocks. [07]

Q.5

a) Explain Long hole raising method with sketch. [07]

b) Write short note on shapes of shaft [07]

OR

a) How to maintain size & gradient of drift? [07]

b) Describe development of raise by Alimak Raise Climber. [07]
