

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-V • EXAMINATION – WINTER 2013

Subject Code: 152202

Date: 29-11-2013

Subject Name: Surface Mine Production

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 surface mining? Explain width & height of the bench with figure. **07**
(b) Explain advantages & limitation of open pit mining. **07**

Q.2 (a) Define stripping ratio. Write short note on disposal of overburden/waste. **07**
(b) Describe factors influencing selection and characteristics of opencast work. **07**

OR

(b) Describe factors influencing choice of mining method. **07**

Q.3 (a) Explain major operation in surface mining. **07**
(b) Write short note on (1) Scrapping (2) Grading. **07**

OR

Q.3 (a) Explain various types of drilling pattern. **07**
(b) Write short note on twin bench blasting & coyote blasting. **07**

Q.4 (a) Explain overcasting by dragline with its various methods. **07**
(b) List out the transporting system in opencast mining. Explain belt conveyer system in details. **07**

OR

Q.4 (a) Describe the planning methods of reclamation for various types of opencast mining? **07**

Q.4 (b) Explain bucket wheel reclaimer with it's a neat sketch. **07**

Q.5 (a) Describe the slope failure with illustrative diagram. **07**
(b) List out the factors for selection of excavators. **07**

OR

Q.5 (a) Point out the comparison between diesel shovel & electrical shovel. **07**
(b) Explain various methods of improving stability of slopes. **07**
