

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV(New) • EXAMINATION – WINTER 2016

Subject Code: 2142206

Date: 24/11/2016

Subject Name: Surface Mine Production

Time: 02:30 PM to 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.

MARKS

Q.1	Short Questions	14
	1 Define: Surface Mining.	
	2 Give proper definition of Explosive.	
	3 List out various materials are used to make an explosive.	
	4 Define the term: Burden.	
	5 Define the term: Space and Berm.	
	6 Give any four examples of High explosive.	
	7 Write any two different between Low explosive and High explosive.	
	8 Define: Crest and Toe	
	9 Write use of Front End Loader.	
	10 What is the need of drainage in opencast mines?	
	11 Why slope failure in opencast mine? Give reason.	
	12 Define: Inclined Drilling.	
	13 What do you mean by Bulldozing?	
	14 Give the name of shapes of Haul Road in mines.	
Q.2	(a) Write general information of surface mining methods.	03
	(b) Explain determination of main parameters of open cast mining.	04
	(c) Write any seven advantage of Opencast Mining Method.	07
	OR	
	(c) Write any seven disadvantages of Opencast Mining Method.	07
Q.3	(a) Explain height of the bench and width of the bench with sketch.	03
	(b) List out various factors influencing choice of opencast mining method.	04
	(c) Write note on system of removal of overburden.	07
	OR	
Q.3	(a) What is drilling? List out different types of drilling equipments.	03
	(b) Write note on Scraping and Grading.	04
	(c) Explain in briefly the major operation in Surface Mining.	07
Q.4	(a) Why reclamation is required? Give any three proper reasons.	03
	(b) Write note on Coyote Blasting.	04
	(c) Describe the various factors influencing choice of excavating and loading machine.	07
	OR	
Q.4	(a) Write note on Scraper.	03
	(b) Explain secondary blasting with their types.	04
	(c) Describe Pipe Line Transpiration used in mines.	07
Q.5	(a) How can protect and monitoring slope to failure?	03
	(b) Write the factors influencing stability of slopes.	04
	(c) List out types of belt conveyor. Explain any one in detail.	07
	OR	
Q.5	(a) Write choice of factors influencing transport system.	03
	(b) Write note on different types of transport system used in opencast	04

- mining methods.
- (c) Explain multi row blasting and twin bench blasting.

07
