

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV (NEW) EXAMINATION – WINTER 2018****Subject Code:2142206****Date:12/12/2018****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
<b>Q.1</b>	(a) Define the Bench Height & Width.	<b>03</b>
	(b) Draw a flow diagram of mineral extraction & mineral transportation in open cast mining	<b>04</b>
	(c) Define Explosive. Explain Multi Row Blasting.	<b>07</b>
<b>Q.2</b>	(a) What do you mean by O.M.S?	<b>03</b>
	(b) How is over burden removes in open cast mining?	<b>04</b>
	(c) Explain Bucket Wheel Excavator in brief.	<b>07</b>
	<b>OR</b>	
	(c) Explain Secondary Blasting and Coyote Blasting	<b>07</b>
<b>Q.3</b>	(a) Write the DGMS's guideline for calculating the width of the haul road.	<b>03</b>
	(b) Write a short note on the application of reclaimers.	<b>04</b>
	(c) Write down various factors influencing Stability of Slopes	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) What do you mean by secondary blasting?	<b>03</b>
	(b) Enlist the types of haul road. Explain any one with neat sketch.	<b>04</b>
	(c) Write a short note on Grading and Ripping.	<b>07</b>
<b>Q.4</b>	(a) Write use of Front End Loader.	<b>03</b>
	(b) Write a short note on belt conveyor system of transportation.	<b>04</b>
	(c) Write a short note on choice of mining methods.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What do you mean by Bulldozing?	<b>03</b>
	(b) Write note on Coyote Blasting	<b>04</b>
	(c) Write a short note on system of disposal of overburden	<b>07</b>
<b>Q.5</b>	(a) Give any four examples of High explosive.	<b>03</b>
	(b) Write note on Scraping and Grading	<b>04</b>
	(c) Write down factors influencing selection and characteristics of opencast work.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Why slope failure in opencast mine? Give reason.	<b>03</b>
	(b) Describe the various factors influencing choice of excavating and loading machine.	<b>04</b>
	(c) Write advantage and disadvantage of Surface Mining.	<b>07</b>

\*\*\*\*\*