

Seat No.: \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 3132201****Date: 30/11/2019****Subject Name: Introduction to Mining****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) What is mineral? List of mineral resources available in Gujarat.	<b>03</b>
(b) Explain: Various stages of mining	<b>04</b>
(c) Give a comparison between underground and surface mining.	<b>07</b>
<b>Q.2</b> (a) Which are the difficulties take place during boring?	<b>03</b>
(b) Describe the directional drilling.	<b>04</b>
(c) Explain with neat sketch principles of boring.	<b>07</b>
<b>OR</b>	
(c) Explain in details with sketch : Core recovery	<b>07</b>
<b>Q.3</b> (a) What is Explosive? How it will helps in mining?	<b>03</b>
(b) Explain the basic concept of blasting.	<b>04</b>
(c) Explain in brief all types of explosives with its applicability.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Describe the detonator with its types and applicability.	<b>03</b>
(b) Explain : Blasting accessories	<b>04</b>
(c) Explain in brief all properties of explosive.	<b>07</b>
<b>Q.4</b> (a) List out the loading equipment used in opencast mines.	<b>03</b>
(b) Write a short note on mine closure	<b>04</b>
(c) Explain any one loading equipment used in opencast mining with neat sketch and brief specifications.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) List out the transportation equipment used in underground mining.	<b>03</b>
(b) List out the transportation equipment used in surface mining.	<b>04</b>
(c) Explain any one loading equipment used in underground mining with neat sketch and brief specifications.	<b>07</b>
<b>Q.5</b> (a) Describe in brief : Selection of drill bits	<b>03</b>
(b) Write a short note on bore hole logging	<b>04</b>
(c) Explain any one loading equipment used in underground mining with neat sketch and brief specifications.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Explain : Drillability of the rock	<b>03</b>
(b) How to interpret the bore hole data?	<b>04</b>
(c) Explain any one loading equipment used in underground mining with neat sketch and brief specifications.	<b>07</b>

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