

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-III (New) EXAMINATION – WINTER 2015**

**Subject Code:2132201****Date:21/12/2015****Subject Name: Introduction to Mining****Time: 2:30pm to 5:00pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		<b>MARKS</b>
<b>Q.1</b>	<b>Short Questions</b>	<b>14</b>
	1 Give the definition of Mining.	
	2 List out various Mining Methods.	
	3 What is Surface Mining?	
	4 List out various mineral resources of Gujarat.	
	5 List out various mineral resources of India.	
	6 What is Blasting?	
	7 Enlist difference methods of Drilling.	
	8 Define the term Explosive.	
	9 What is Prospecting?	
	10 Give the names of various loading equipment.	
	11 Give the names of important transportation equipment.	
	12 Where is Diamond drilling used?	
	13 Give the types of Drilling bits used in mines.	
	14 What is Core Recovery?	
<b>Q.2</b>	(a) Write a note on significance of Mining Industry.	<b>03</b>
	(b) Give the History of Mining.	<b>04</b>
	(c) Explain various Health and Safety parameters for surface mining methods.	<b>07</b>
	<b>OR</b>	
	(c) List out various Mineral resources of the World.	<b>07</b>
<b>Q.3</b>	(a) Give comparison between Underground Mining and Surface Mining.	<b>03</b>
	(b) Give the importance of Exploration in Mining.	<b>04</b>
	(c) Give the significance of Reconnaissance in Prospecting.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Describe Trenching and Pitting.	<b>03</b>
	(b) Give the importance of Core Recovery in drilling.	<b>04</b>
	(c) Explain the general concepts of Mine Development.	<b>07</b>
<b>Q.4</b>	(a) Explain power drilling.	<b>03</b>
	(b) Describe Manual drilling with sketch.	<b>04</b>
	(c) List out various types of explosive. Write a note on Gun powder.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Describe the various applications of Loading equipment.	<b>03</b>
	(b) Write a note on Modern Explosives.	<b>04</b>
	(c) Give the Principles of Blasting.	<b>07</b>

- Q.5** (a) Describe Surface Blasting and Underground Blasting. **03**  
(b) Narrate the difficulties encountered during drilling. **04**  
(c) Explain various properties of Explosives. **07**
- OR**
- Q.5** (a) Differentiate between Low Explosive and High Explosive. **03**  
(b) Describe deflection in boreholes with sketch. **04**  
(c) Give the Socio economical impacts of Mining activities. **07**

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