

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2017

**Subject Code: 2172201/2172208**

**Date: 02/11/2017**

**Subject Name: Mine Plannning**

**Time: 10:30 AM TO 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.

		MARKS
<b>Q.1</b>	(a) Define the following term: Bench Height, Bench Width and Stripping Ratio.	<b>03</b>
	(b) What is the role of planning in mining venture?	<b>04</b>
	(c) What is mine planning and design? What are the components of mine planning? Explain it in brief.	<b>07</b>
<b>Q.2</b>	(a) Describe Taylor's mine life rule.	<b>03</b>
	(b) Describe parameter affecting design of haul road.	<b>04</b>
	(c) What is cut off grade? How it is determine? Explain in brief.	<b>07</b>
	<b>OR</b>	
	(c) What do you mean by grade tonnage curve? Explain their computation.	<b>07</b>
<b>Q.3</b>	(a) Describe factors affecting to planning and designing of a surface mine.	<b>03</b>
	(b) Define Reserve. Explain various types of reserve.	<b>04</b>
	(c) Explain the role of planning and scheduling of production in underground mining.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Write a short note on ultimate pit configuration?	<b>03</b>
	(b) Explain different techniques for reserve estimation.	<b>04</b>
	(c) What is the role of bench geometry and mine layouts in surface mine planning?	<b>07</b>
<b>Q.4</b>	(a) Write a short note on rate of production.	<b>03</b>
	(b) Explain mining system and sub-system in underground mine planning.	<b>04</b>
	(c) What is role of Feasibility study report for metallic minerals?	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What do you mean by mining losses? How it is affecting life of mine?	<b>03</b>
	(b) What are the various economic considerations for optimization of mine design?	<b>04</b>
	(c) Prepare a detailed project report of any mines you have visited.	<b>07</b>
<b>Q.5</b>	(a) What do you mean by optimal geometric size of a mine?	<b>03</b>
	(b) What are various economic considerations for optimization of mine design?	<b>04</b>
	(c) List out different phases of planning process? Explain production planning.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) What are the advantages and amendments in mine closure planning?	<b>03</b>
	(b) Differentiate between geological reserve and mineable reserve.	<b>04</b>
	(c) Explain the various legal aspects of mine closure planning.	<b>07</b>

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