Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI • EXAMINATION – SUMMER 2013

Subject Code: 162202 **Date: 27-05-2013**

Subject Name: Underground Metal Mining

Time: 10.30 am - 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.**

Q.1	**(a)**	What is present scenario of Indian metal mining industries?	**07**
	(b)	Describe Ore and Waste bins & Skip pockets with illustrative figure.	**07**
Q.2	**(a)**	Describe classification of different mining methods.	**07**
	(b)	Explain electrical and mechanical methods of secondary breaking.	**07**
		OR	
	(b)	Explain top slicing method with sketch.	**07**
Q.3	**(a)**	Describe pneumatic and mechanical methods of backfill.	**07**
	(b)	Explain block caving methods and their variants.	**07**
		OR	
Q.3	**(a)**	Describe chutes & grizzlies with illustrative figure.	**07**
	(b)	Explain various parameters for selection of stopping methods.	**07**
Q.4	**(a)**	Explain sand gathering plant & procurement of backfilling material.	**07**
	(b)	Describe room & pillar methods in u/g metal mining.	**07**
		OR	
Q.4	**(a)**	Write Advantages & Disadvantages of Sub-level caving method.	**07**
Q.4	**(b)**	Explain blast hole and vertical crater retreat methods & their disadvantages.	**07**
Q.5	**(a)**	Explain cut and fill method in u/g metal mines.	**07**
	(b)	Explain various metal mining companies in India.	**07**
		OR	
Q.5	**(a)**	Explain theoretical aspects of slurry transportation.	**07**
	(b)	Explain with figure: Shaft insets and plats.	**07**

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