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GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– VI (New) EXAMINATION – WINTER 2019

Subject Code: 2162202   **Date: 04/12/2019**

Subject Name: Underground Metal 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
Q.1	**(a)**	Write a short note on lead-zinc deposit of India.	**03**
	(b)	Describe the different working methods adopted in Khetri Copper Complex.	**04**
	(c)	Write the application and preparation of top slicing method.	**07**
Q.2	**(a)**	Write a short note on Burn cut drilling pattern with cross-sectional diagram.	**03**
	(b)	Describe the classification of stoping methods.	**04**
	(c)	Write a note on Zawar group of mines.(Name of mines with their specification and their methodology of working)	**07**
		OR	
	(c)	Draw a general layout of underground metal mining and explain its terminology.	**07**
Q.3	**(a)**	Name different conventional secondary breaking methods. Explain any one.	**03**
	(b)	Write a note on material of backfill and their procurement.	**04**
	(c)	Describe the sub-level open stoping with neat sketch.	**07**
		OR	
Q.3	**(a)**	Write the application of sub level open stoping.	**03**
	(b)	Name the different tertiary crusher. Explain any one.	**04**
	(c)	Describe the mechanical method of secondary breaking.	**07**
Q.4	**(a)**	Write the advantages and disadvantages of shrinkage mining method.	**03**
	(b)	Describe the application of room and pillar mining.	**04**
	(c)	Explain the VCR method with figure.	**07**
		OR	
Q.4	**(a)**	Explain the preparation of hydraulic backfill material.	**03**
	(b)	Write a note on Jaw crusher.	**04**
	(c)	Explain the shrinkage stoping with pillars.	**07**
Q.5	**(a)**	Describe the pneumatic method of back filling.	**03**
	(b)	Write the advantages and disadvantages of square set mining method.	**04**
	(c)	Write a note on cut & fill method.	**07**
		OR	
Q.5	**(a)**	Explain the mechanical method of back filling.	**03**
	(b)	Write a note on Cone crusher.	**04**
	(c)	Name the different caving method. Explain any one.	**07**

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