Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER–VII (NEW) EXAMINATION – WINTER 2024

Subject Code:3172210 Date:11-12-2024

Subject Name: Mine Mineral Economics

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.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	**(a)**	Discuss the economic importance of mineral industry in India.	**03**
	(b)	Define mineral losses and its classification. How these losses incorporated in mining operations?	**04**
	(c)	Explain conservation of mineral resources, scope and their limitations.	**07**
Q.2	**(a)**	Explain capital cost and operating cost.	**03**
	(b)	Describe the market survey and demand analysis of mineral.	**04**
	(c)	Discuss what you understand by mine valuation. Describe different methods and their application.	**07**
		OR	
	(c)	Explain the amortization and redemption of capital and their association with mining.	**07**
Q.3	**(a)**	Define Sample and Sampling. Explain the importance of sampling in details.	**03**
	(b)	Explain the different methods of sample preparation.	**04**
	(c)	Explain the errors in sampling.	**07**
		OR	
Q.3	**(a)**	Discuss the precautions to be taken during sampling.	**03**
	(b)	Discuss the factors affecting operating cost.	**04**
	(c)	Explain the sampling methods and computations.	**07**
Q.4	**(a)**	Discuss the risky nature of mining industry.	**03**
	(b)	Explain dilution and recovery.	**04**
	(c)	Explain budget and budgetary control in brief.	**07**
		OR	
Q.4	**(a)**	Discuss the examination and valuation of mines.	**03**
	(b)	Describe the classification of mineral resources.	**04**
	(c)	Explain the mine accountancy and book keeping.	**07**
Q.5	**(a)**	Discuss the objectives and principles of mines taxation.	**03**
	(b)	Describe the causes and objective of depreciation in mine valuation.	**04**
	(c)	Explain the co-efficient of completeness of mineral extraction.	**07**
		OR	
Q.5	**(a)**	Discuss the composition and economic significance of mineral inventory.	**03**
	(b)	Describe the report on mine valuation.	**04**
	(c)	Explain Hoskold's and modern concepts for present value computation.	**07**

****