

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- VII EXAMINATION-SUMMER 2023****Subject Code: 3172210****Date: 30/06/2023****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

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|------------|---|-----------|
| Q.1 | (a) Discuss the economic importance of mineral industry in India. | 03 |
| | (b) Describe the classification of mineral resources. | 04 |
| | (c) Discuss what you understand by mine valuation. Describe different methods and their application. | 07 |
| Q.2 | (a) Define Sample and Sampling. Explain the importance of sampling in details. | 03 |
| | (b) Explain capital cost and operating cost. | 04 |
| | (c) Discuss the characteristic features, composition and economic significance of mineral inventory. | 07 |
| OR | | |
| | (c) Explain the mining taxation structure. | 07 |
| Q.3 | (a) Discuss the mineral consumption and substitution. | 03 |
| | (b) Describe the risky nature of mining industry. | 04 |
| | (c) Explain conservation of mineral resources, scope and their limitations. | 07 |
| OR | | |
| Q.3 | (a) Define mineral losses and its classification. How are these losses incorporated in mining operations? | 03 |
| | (b) Explain dilution and recovery. | 04 |
| | (c) Explain Hoskold's and modern concepts for present value computation. | 07 |
| Q.4 | (a) Discuss the errors in sampling. | 03 |
| | (b) Describe the selection of sampling procedure, size and spacing of samples. | 04 |
| | (c) Explain the different methods used for preparing a sample. | 07 |
| OR | | |
| Q.4 | (a) Discuss the factors affecting operating cost. | 03 |
| | (b) Explain the sampling methods and computations. | 04 |
| | (c) Explain budget and budgetary control in brief. | 07 |
| Q.5 | (a) List out the different methods of depreciation. Explain straight line method. | 03 |
| | (b) Describe the report on mine valuation. | 04 |
| | (c) Explain the mine accountancy and book keeping. | 07 |
| OR | | |
| 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 amortization and redemption of capital and their association with mining. | 07 |
