

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2022****Subject Code:3172210****Date:06/06/2022****Subject Name:Mine Mineral Economics****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.
4. Simple and non-programmable scientific calculators are allowed.

**MARKS**

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

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