

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VII EXAMINATION – WINTER 2025

Subject Code:3172210

Date:28-11-2025

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) Explain standard costs and its importance in an industry. | 03 |
| (b) Explain dilution and recovery. | 04 |
| (c) Explain conservation of mineral resources, scope and their limitations. | 07 |
| Q.2 (a) Write the purpose of mine accounting. | 03 |
| (b) What do you understand by ABC analysis? | 04 |
| (c) Explain the different types of sampling method used in mine. | 07 |
| OR | |
| (c) Describe the types of internal sampling errors according to Pierre Gy's theory of sampling. | 07 |
| Q.3 (a) Write the ideal basic principles of mining taxation? | 03 |
| (b) Explain the classification of mineral losses. | 04 |
| (c) Discuss various functions of national mineral policy 2012. | 07 |
| OR | |
| Q.3 (a) Define sampling and its importance. | 03 |
| (b) Explain capital cost and operating cost. | 04 |
| (c) Discuss the basic concept and classification of tax systems. | 07 |
| Q.4 (a) Write the risky nature of the mining industry. | 03 |
| (b) How ore is classified? Explain in detail. | 04 |
| (c) Describe the different methods of mine valuation. | 07 |
| OR | |
| Q.4 (a) Write the application of mine valuation in mineral industry. | 03 |
| (b) State the desirable features of depreciation methods. | 04 |
| (c) Discuss Hoskold's and modern concepts for present value computation. | 07 |
| Q.5 (a) State the assumption on which cost-volume-profit analysis is used. | 03 |
| (b) Discuss the composition and economic significance of mineral inventory. | 04 |
| (c) Describe the different methods of calculating depreciation. | 07 |
| OR | |
| Q.5 (a) What are the precautions to be taken during sampling? | 03 |
| (b) Explain the regulatory and developmental objectives of taxation. | 04 |
| (c) Discuss budget and budgetary control in brief. | 07 |
