

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III (NEW) EXAMINATION – SUMMER 2019

Subject Code: 2132201

Date: 11/06/2019

Subject Name: Introduction To 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

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|------------|---|-----------|
| Q.1 | (a) Explain the socioeconomic impact of mining industry. | 03 |
| | (b) Discuss the advantages of surface mining over underground mining | 04 |
| | (c) Describe the principle and methods of mineral prospecting in brief. | 07 |
| Q.2 | (a) Discuss the importance of core recovery. | 03 |
| | (b) Explain blasting practices of surface and underground blasting. | 04 |
| | (c) Discuss the various mineral resources of Gujarat and India. | 07 |
| | OR | |
| | (c) Define drilling. Differentiate between rotary and percussive drilling. | 07 |
| Q.3 | (a) Explain the history of mining industry. | 03 |
| | (b) Describe the general concepts of mine development. | 04 |
| | (c) Explain the effects of mining on surface environment. Write a note on health and safety in mines. | 07 |
| | OR | |
| Q.3 | (a) Discuss the significance of mining industry. | 03 |
| | (b) Define the following terms: Stripping Ratio, Mineral, Rock and Ore | 04 |
| | (c) What is explosive? Explain the various properties of explosive. | 07 |
| Q.4 | (a) Explain deflection of borehole with sketch. | 03 |
| | (b) Write a note on unit operations of loading and transportation. | 04 |
| | (c) List out different loading equipment. Explain any one with neat sketch. | 07 |
| | OR | |
| Q.4 | (a) Discuss the difficulties faces during boring. | 03 |
| | (b) Differentiate between high explosive and low explosive. | 04 |
| | (c) List out the various transportation equipments used in mines. Explain any one with neat sketch. | 07 |
| Q.5 | (a) Write a note on drill ability of rocks. | 03 |
| | (b) Describe various mining methods for coal and non-coal deposits. | 04 |
| | (c) Define boring. Explain interpretation of borehole data. | 07 |
| | OR | |
| Q.5 | (a) Write a note on trenching and pitting. | 03 |
| | (b) Discuss the various applications of transporting equipment. | 04 |
| | (c) List out various types of drills. Explain the process of diamond drilling with neat sketch. | 07 |
