

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 162202

Date: 12/05/2017

Subject Name: Underground Metal Mining

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.

- Q.1 (a) Describe present status of Indian Metal Mining industries. 07
(b) Write note on construction of Mine Portals. 07
- Q.2 (a) Explain the use and purpose of Orepass, Chute, Underground Chamber and Sump. 07
(b) Describe Conventional Breaking method in detail. 07
- OR**
- (b) Describe Mechanical and Electrical Breaking method in brief. 07
- Q.3 (a) Write note on stoping of super imposed veins and parallel ore bodies. 07
(b) Describe combined method of stoping in detail. 07
- OR**
- Q.3 (a) Explain sand gathering plant with their arrangement and clean sketch. 07
(b) Describe Hydraulic Backfill method with cement. 07
- Q.4 (a) Explain Top Slicing Method in detail. 07
(b) Describe Square Set Stopping method with applicability condition and add their disadvantages. 07
- OR**
- Q.4 (a) Write note on Dilution and Recovery. 07
(b) Describe ventilation loading and underground crushing. 07
- Q.5 (a) List out different classification of stoping method according to their selection bases. 07
(b) Define Stope. Explain stope layout and stope preparation work in detail. 07
- OR**
- Q.5 (a) Give the name of Open Stopping. Explain anyone with sketch. 07
(b) Explain Shrinkage stoping method in detail. 07
