

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VI EXAMINATION – WINTER 2015

Subject Code:162202**Date:17 /12/ 2015****Subject Name: Underground Metal Mining****Time:2:30pm to 5:00pm****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) Explain present status of Indian Metal Mining industry. **07**
(b) Describe Ore and Waste Bins in brief with sketch. **07**
- Q.2** (a) Explain Ore passes, chutes, garages and grizzlies in brief. **07**
(b) Write a short note on underground chambers and sumps and other subsidiary excavations. **07**
- OR**
- (b) Write a short note on construction of Mine Portals, shaft insects and plats. **07**
- Q.3** (a) Explain Secondary Breaking in brief. **07**
(b) Describe Electrical methods of secondary breaking. **07**
- OR**
- Q.3** (a) List out various Mining methods and explain all methods in short. **07**
(b) Describe Mechanical methods of secondary breaking. **07**
- Q.4** (a) Write a short note on underground crushing. **07**
(b) Explain sub-level stopping and vertical crater retreating stopping method in brief. **07**
- OR**
- Q.4** (a) Explain shrinkage stopping and blast hole stopping method in brief. **07**
(b) Describe square set support with sketch. **07**
- Q.5** (a) Write a short note on surface arrangements for storage and mixing. **07**
(b) Explain pneumatic and mechanical methods of backfill in brief with sketch. **07**
- OR**
- Q.5** (a) Write a short note on recovery and dilution. **07**
(b) Explain top slicing and sublevel caving. **07**
