

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 |
