

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII • EXAMINATION – WINTER 2013

Subject Code: 172201**Date: 26-11-2013****Subject Name: Mine Planning****Time: 10:30 TO 01:00****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) what are the various methods of reserve estimation ? Explain it. **07**
(b) What is Role of mine planning in mining ventures? **07**
- Q.2** (a) Explain planning stages of open cast metal mine with annual production capacity 10 lacs tone. With stripping ratio 1:5. Assume your own equipment combination. **07**
(b) Write short note on: Effect of mining losses on rate of production in metal mining. **07**
- OR**
- (b) Advantages of underground mine working. **07**
- Q.3** (a) Prepare project report of open cast mine; production 4 lacs tone, ore body thickness 15 meter, assumes other factors. **07**
(b) Write short note on: optimum geometrical size of mine. **07**
- OR**
- Q.3** (a) Define: Geological reserve. **07**
(b) Explain various steps of feasibility study report for metallic & non-metallic minerals? **07**
- Q.4** (a) What are the various parameter effecting Haul road design. **07**
(b) Write short note on: Grade tonnage curves and its computation methods. **07**
- OR**
- Q.4** (a) Explain extraction for lime stone deposit by surface miner. **07**
Q.4 (b) Write short note on : Taylor's mine life rule. **07**
- Q.5** (a) What are various safety aspect considered in during dump planning in open cast mining? **07**
(b) Define : [1] ore body , [2] bench geometry & [3] cut off grade **07**
- OR**
- Q.5** (a) Why underground mining system is presently mostly adopted in India? **07**
(b) Define: Mineable reserve. **07**
