

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE SEM-VII Examination-Nov/Dec.-2011**

**Subject code: 172201****Date: 19/11/2011****Subject Name: Mine Planning****Time: 10.30 am-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) Explain (1) Geological reserve , (2) Mineable Reserve **07**  
(b) Describe: Taylor's mine life rule. **07**
- Q.2** (a) What do you mean by basic difference cut off grade ? Explain its determination. **07**  
(b) Describe parameter effecting Haul road design. **07**
- OR**
- (b) Describe factors considered in dump planning. **07**
- Q.3** (a) Explain grade Tonnage curves and their computation. **07**  
(b) Explain various Mine planning components. **07**
- OR**
- Q.3** (a) Describe open cast metal mine planning [ Shovel dumper combinations] with annual production capacity 5 lacs tone. with stripping ratio 1:3 **07**  
(b) Advantages of open cast mine working. **07**
- Q.4** (a) What is Role of mine planning in mining ventures? **07**  
(b) What are various economic considerations for optimization of mine design ? **07**
- OR**
- Q.4** (a) Prepare detail project report of U/g coal mine ; production 1.2 lacs tone, depth of ore 75 meter , transportation by Incline , assume other factors. **07**  
(b) Explain various methods of reserve estimation. **07**
- Q.5** (a) What is role of feasibility study report for metallic & non- metallic minerals ? **07**  
(b) What do you mean by Mining losses ? How it is effecting life of mine ? **07**
- OR**
- Q.5** (a) Role of bench geometry and mine layouts in surface mine planning **07**  
(b) Advantages of u/g mine working. **07**
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