

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII • EXAMINATION – SUMMER • 2015

Subject code: 172201**Date: 01/05/2015****Subject Name: Mine Planning****Time: 02.30pm-05.00pm****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 mine planning & its components. **07**
(b) Explain Bench Geometry and its layout with illustrative diagram. **07**
- Q.2** (a) Describe: Taylor's mine life rule. **07**
(b) What is cut off grade? List out the different method for determining the cut off grade. Explain any one of the method. **07**
- OR**
- (b) Describe parameters affecting design of haul road. **07**
- Q.3** (a) Explain role of planning and scheduling of production in underground mining ventures. **07**
(b) Describe various methods of reserve estimation. **07**
- OR**
- Q.3** (a) Explain grade tonnage curves and their computation. **07**
(b) Define the following **07**
(i) Mineable Reserve and (ii) Geological Reserve
- Q.4** (a) What is advantage & disadvantage of open cast mine working? **07**
(b) What is role of feasibility study report for metallic & non-metallic minerals? **07**
- OR**
- Q.4** (a) What are various economic considerations for optimization of mine design? **07**
Q.4 (b) What do you mean by mining losses? How it is affecting life of mine? **07**
- Q.5** (a) Explain mining system & sub-system in underground mine planning **07**
(b) Describe factors considered in dump planning? **07**
- OR**
- Q.5** (a) What is advantage & disadvantage of underground mine working. **07**
(b) By assuming your own conditions and factors, Prepare a summarized project report of u/g coal mine having production of 1.0 lacs tonne per annum, depth of coal seams 50 meter and transportation by incline. **07**
