

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – WINTER • 2014

Subject code: 172201

Date: 25/11/2014

Subject Name: Mine Planning

Time: 10:30 AM TO 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) What is mine planning? Explain strategic mine planning. 07

(b) Explain (1) Losses and Dilution (2) Mine Optimization 07

Q-2. (a) What is ultimate pit limit and illustrate in schematic diagram a design 07

Procedure in open pit mine with regard to ultimate pit limit determination?

(b) Write a note on Details project report. 07

OR

(b) Describe Grade tonnage curve and mining recovery. 07

Q-3. (a) Write a note on construction of haul road. 07

(b) Explain role of planning and scheduling of production in U/G mining venture. 07

OR

Q-3. (a) Explain Taylor's mine life rule. 07

(b) Give advantages of U/G mine working. 07

Q-4. (a) Define reserve estimation. Explain various methods of it. 07

(b) Describe the factors to be considered in planning and designing of a Surface mine. 07

OR

Q-4. (a) Explain (1) Stripping ratio (2) Optimal geometrical size of a mine. 07

(b) Draw schematic diagram of bench. Define (1) Bench (2) Cut. 07

Q-5. (a) What do you mean by cutoff grade? How do you determine the 07

Cutoff grade for gold ore.

(b) Give merits and demerits of open pit mining. **07**

OR

Q-5. (a) Describe design of haul roads. Explain parameter effecting on it. **07**

(b) Explain (1) Life of mine (2) Rate of production. **07**