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 Procedure in open pit mine with regard to ultimate pit limit determination? **07**

(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**