Seat No.: _____ Enrolment No._____

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**

****