Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV(New) EXAMINATION – SUMMER 2016

Subject Code:2142206 **Date:08/06/2016**

Subject Name:Surface Mine Production

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.**

			MARKS
Q.1		**Short Questions**	**14**
	1	What is Surface Mining? Give definition.	
	2	Define the term : Bench Height and Bench Width	
	3	Define the term : Crest and Toe	
	4	What is angle of slope?	
	5	What do you understand the meaning of Burm?	
	6	Give the definition of Strip Mining.	
	7	Give the perfect definition of Explosive.	
	8	What is the use of Dragline?	
	9	In which case Ripper used? Give any two reason.	
	10	List out names of different Loading Machines.	
	11	List out names of different Transporting Machines.	
	12	What is the use of Spreader?	
	13	What do you mean by Drainage?	
	14	Define the term: Reclamation	
Q.2	**(a)**	Give the general information about Surface Mining.	**03**
	(b)	Write different advantages and disadvantages of Surface Mining.	**04**
	(c)	Explain system of disposal of overburden and removal of Cover Blocks.	**07**
		OR	
	(c)	Describe the factors influencing selection characteristics of opencast mining.	**07**
Q.3	**(a)**	Write short note on Choice of Mining Method.	**03**
	(b)	Explain operation and construction of Scraper in brief.	**04**
	(c)	What is Drilling? Explain their types in brief and also write their uses.	**07**
		OR	
Q.3	**(a)**	Explain major operations in Surface Mining.	**03**
	(b)	Explain operation and construction of Grader in brief.	**04**
	(c)	Explain Twin bench blasting and Multi row blasting in brief.	**07**
Q.4	**(a)**	Differentiate between Dragline and Bucket Wheel Excavator.	**03**
	(b)	Explain construction and operation of Power Shovel.	**04**
	(c)	Describe different factors influencing choice of Excavating & loading machine.	**07**
		OR	
Q.4	**(a)**	Write short note on Secondary Blasting.	**03**
	(b)	Describe operation of Backhoe and Front End Loader.	**04**
	(c)	Explain the construction and operation of Bucket Wheel Excavator.	**07**
Q.5	**(a)**	Write short note on Spreader.	**03**
	(b)	Explain factors influencing choice of Transport Equipment.	**04**
	(c)	What is Slope Failure? Explain factors influencing Stability of Slopes.	**07**
		OR	

Q.5	**(a)**	Write short note on Reclaimer.	**03**
	(b)	Describe planning methods of Reclamation for opencast mines.	**04**
	(c)	Explain methods for improving stability of slopes and water drainage patterns.	**07**

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