Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII • EXAMINATION – SUMMER • 2014

Subject Code: 172207 **Date: 31-05-2014**

Subject Name: Rock Fragmentation

Time: 02.30 pm - 05.00 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 an explosive? Explain the low explosive with gun powder.	**07**
	(b)	Write a short note with illustrative sketch on (1) Wedge Cut & (2) Burn Cut	**07**
Q.2	**(a)**	Explain various properties of explosives.	**07**
	(b)	Describe the advantages of Muffled Blasting.	**07**
		OR	
		Write a short note on Nuclear Blasting.	**07**
Q.3	**(a)**	Explain in brief Rotary Percussive Drilling.	**07**
	(b)	What are the precautions taken during the use of explosives?	**07**
		OR	
Q.3	**(a)**	Describe the computational models of blasting with figure.	**07**
	(b)	Describe the following (1) Pop Shooting (2) Plaster Shooting & (3) Coyote Blasting.	**07**
Q.4	**(a)**	Explain with illustrative sketch direct initiation and indirect initiation.	**07**
	(b)	Write the advantage and disadvantage of delay blasting technique.	**07**
		OR	
Q.4	**(a)**	Write in brief about hang fire and Blown –out shot.	**07**
	(b)	Describe drill-ability of rock.	**07**
Q.5	**(a)**	What is a detonator? Compare plain detonator with electric detonator.	**07**
	(b)	Explain the steps which are taken after a misfire.	**07**
		OR	
Q.5	**(a)**	Write a short note on long hole drilling.	**07**
	(b)	Explain in brief the impact of ground vibration.	**07**

****