

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE – 7 SEMESTER – • EXAMINATION – SUMMER 2018**

**Subject Code: 172207**

**Date: 28-04-2018**

**Subject Name: Rock Fragmentation**

**Time: 02:30 pm to 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) Define drilling? Explain various purpose of drilling. **07**  
(b) What is ground vibration? Explain its causes and damages. **07**
- Q.2** (a) Write the merit & demerit of Rock Fragmentation. **07**  
(b) Explain direct initiation and indirect initiation. **07**
- OR**
- (b) Write the advantage and disadvantage of delay blasting technique. **07**
- Q.3** (a) Which factors are considered for selecting drill for an open cast mine? **07**  
(b) What are the causes of fly rock and how such unexpected projections can be calculated? **07**
- OR**
- Q.3** (a) What is rock fragmentation? Write the importance of rock fragmentation. **07**  
(b) Explain with a neat sketch Drag cut and Cormorant cut. **07**
- Q.4** (a) Explain the steps which are taken after a misfire. **07**  
(b) Write a short note on chamber blasting. **07**
- OR**
- Q.4** (a) Explain the various purpose of Rock Fragmentation. **07**  
(b) What are cap sensitive explosives? Draw a neat sketch of delay detonator. **07**
- Q.5** (a) Explain with a neat sketch priming operation. **07**  
(b) Write a short note on: (1) Air Blast (2) Factors affecting rock blasting. **07**
- OR**
- Q.5** (a) Describe the various techniques of used in rock fragmentation. **07**  
(b) Explain the properties of explosives? **07**

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