

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 172207

Date: 29/11/2011

Subject Name: Rock Fragmentation

Time: 10.30 am-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) Explain any one drilling pattern used for hard rock. **07**
(b) Explain bench drilling and blasting technique used in surface mines. **07**
- Q.2** (a) Write short note on Churn drilling. **07**
(b) Compare rotary drilling with percussive drilling. **07**
- OR**
- (b) Write short note on present status of drilling and blasting in India. **07**
- Q.3** (a) Write short note on drillability of rock. **07**
(b) Explain in brief mechanism of blasting. **07**
- OR**
- Q.3** (a) Write short note on down the hole drilling. **07**
(b) Explain in brief the factors considered for selecting drill for open cast mine **07**
- Q.4** (a) What is velocity of detonation? How will you measure it? **07**
(b) Write short note on Nuclear explosive. **07**
- OR**
- Q.4** (a) Explain in brief properties of a high explosive **07**
(b) Explain in brief delay electric detonator. **07**
- Q.5** (a) Write safety measures in the use of explosives. **07**
(b) Compare plain and electric detonator. **07**
- OR**
- Q.5** (a) Explain in brief deck blasting technique used in mines. **07**
(b) Explain in brief factors affecting rock fragmentation. **07**
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