

GUJARAT TECHNOLOGICAL UNIVERSITY
B. E. - SEMESTER – VII • EXAMINATION – WINTER 2012

Subject code: 172207**Date: 28/12/2012****Subject Name: ROCK FRAGMENTATION****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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| Q.1 | (a) | Explain in brief rotary-percussive drilling. | 07 |
| | (b) | Write Factors affecting rock fragmentation in blasting. | 07 |
| Q.2 | (a) | Write properties of good explosives. | 07 |
| | (b) | Write a short note on air blast. | 07 |
| | | OR | |
| | (b) | Compare low explosive with high explosive. | 07 |
| Q.3 | (a) | Write short note on shot firing tools. | 07 |
| | (b) | Explain with a neat sketch priming operation. | 07 |
| | | OR | |
| Q.3 | (a) | Write a short note on drill ability of rocks. | 07 |
| | (b) | What is velocity of detonation? How will you measure it? | 07 |
| Q.4 | (a) | Write safety measure in the use of explosive. | 07 |
| | (b) | Compare rotary drilling with percussive drilling. | 07 |
| | | OR | |
| Q.4 | (a) | Write a short note on vibration due to blasting. | 07 |
| Q.4 | (b) | Explain with a neat sketch sub grade drilling. | 07 |
| Q.5 | (a) | Explain deck blasting and coyote blasting. | 07 |
| | (b) | Explain any one drilling pattern used for hard rocks. | 07 |
| | | OR | |
| Q.5 | (a) | Compare plane detonator with electric detonator. | 07 |
| | (b) | Explain the steps which are taken after a misfire. | 07 |
