

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

Subject code: 142201**Date: 27/12/2012****Subject Name: Mining machinery-1****Time: 02.30 pm - 05.00 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 manufacturing process of wire ropes. | 07 |
| | (b) | Explain in brief the tests applied on wire. | 07 |
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| Q.2 | (a) | Write short note on rope splicing. | 07 |
| | (b) | Explain the purpose of recapping of a winding rope. | 07 |
| OR | | | |
| | (b) | Compare compressed air with electricity as a power. | 07 |
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| Q.3 | (a) | Compare stranded wire rope with non stranded wire rope. | 07 |
| | (b) | Explain in brief preformed wire ropes. | 07 |
| OR | | | |
| Q.3 | (a) | Write short note on jack hammer. | 07 |
| | (b) | List out various types of compressors used in mines. | 07 |
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| Q.4 | (a) | Explain in brief working of scraper chain conveyor. | 07 |
| | (b) | Explain any one loop take up arranged for belt conveyor system. | 07 |
| OR | | | |
| Q.4 | (a) | Compare mono cable with bi-cable aerial rope way. | 07 |
| Q.4 | (b) | Differentiate between direct rope haulage and less rope haulage. | 07 |
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| Q.5 | (a) | Explain in brief construction feature of a shuttle car. | 07 |
| | (b) | Write important feature of a good haulage track. | 07 |
| OR | | | |
| Q.5 | (a) | List out the methods of transport system used in mines. | 07 |
| | (b) | Write short note on exhaust trap used in diesel locomotive. | 07 |
