

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE SEM-IV Examination-Nov/Dec-2011**

**Subject code: 142201**

**Date: 25/11/2011**

**Subject Name: Mining Machinery -I**

**Time: 02.30 pm -5.00 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 different types of aerial ropeways. **07**  
(b) Explain different types of rope capping. **07**
- Q.2** (a) Describe with figure Endless rope haulage. **07**  
(b) Describe operation & maintenance of Mine Locomotives. **07**  
**OR**  
(b) Explain with sketch Pit top lay out of tracks. **07**
- Q.3** (a) What are various types of Mine Locomotives? explain . **07**  
(b) Describe Rope splicing methods. **07**  
**OR**
- Q.3** (a) Explain various types of conveyor haulage. **07**  
(b) Describe distribution system of compressed air used in mines & main parameter effecting in designing it. **07**
- Q.4** (a) Explain various types of ropes used for winding & haulage. **07**  
(b) Draw sketch of (1) Tippler (2) Direct rope haulage **07**  
**OR**
- Q.4** (a) Various factor effecting gage-selection for mine car **07**  
(b) Advantages of conveyor system over Track and mine car **07**
- Q.5** (a) Explain various attachments of Mine tubs and cars. **07**  
(b) Explain dis-advantages of Aerial ropeways system. **07**  
**OR**
- Q.5** (a) Describe with sketch rope tensioning arrangement. **07**  
(b) Parameters effecting process of rope selection for haulage **07**

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