

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – SUMMER 2013****Subject Code: 142201****Date: 07-06-2013****Subject Name: Mining Machinery-I****Time: 10:30am – 01:00pm****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) What are various parameters affecting selection of wire rope? Describe it. **07**
(b) Explain methods of Rope splicing. **07**

- Q.2** (a) Why aerial ropeways are not commonly used in opencast mine. **07**
(b) What is rope capping? Explain any one rope capels. **07**

OR

- (b) Explain different types of aerial ropeway. **07**

- Q.3** (a) Explain various types of ropes used for winding & haulage. **07**
(b) Describe Lang's lay and ordinary lay in wire rope with neat sketch. **07**

OR

- Q.3** (a) Explain various types of conveyor haulage. **07**
(b) Explain with sketch pit top layout of tracks. **07**

- Q.4** (a) Explain various types of locomotives used in mines. **07**
(b) Write advantages of conveyor system over track and mine car. **07**

OR

- Q.4** (a) Explain Coned-Socket type capel. **07**
Q.4 (b) Differentiate Endless & direct rope haulage. **07**

- Q.5** (a) Explain pipe line and distributions of compressed air used in u/g mines. **07**
(b) Describe low profile dumpers and shuttle car and their maintenance. **07**

OR

- Q.5** (a) Draw sketch of (1) Tippler (2) Direct rope haulage. **07**
(b) What are the essential of a good haulage tracks? **07**
