

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 142201**Date: 01/06/2017****Subject Name: Mining Machinery-I****Time: 10:30 AM to 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) What is the purpose, scope and application of conveyor haulage system? **07**
 (b) What are the main parameters that are to be taken care in distribution of compressed air? **07**
- Q.2** (a) What are different rope splicing methods? Explain them. **07**
 (b) Explain the construction of mine tubs and cars. **07**
- OR**
- (b) What are the criteria for selection of wire ropes? **07**
- Q.3** (a) What are the types of locomotives and explain their construction **07**
 (b) Explain different types of aerial ropeway. **07**
- OR**
- Q.3** (a) Describe Lang's lay and ordinary lay in wire rope with neat sketch. **07**
 (b) Explain Coned-Socket type capel. **07**
- Q.4** (a) Explain with sketch pit top layout of tracks. **07**
 (b) Describe law profile dumpers and shuttle car and their maintenance. **07**
- OR**
- Q.4** (a) Describe main methods of underground transport. **07**
 (b) What are the maintenance issues of mine locomotives. **07**
- Q.5** Write note on ant two : **14**
1. Differentiate Endless & direct rope haulage.
 2. Recapping of winding rope.
 3. Advantages of compressed air.
 4. Mono cable aerial rope way.
