

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV • EXAMINATION – SUMMER 2015

Subject Code:142201**Date: 28/05/2015****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) Explain the installation and operations of Aerial Ropeway. **07**
(b) What are the advantages of compressed air over other power sources? **07**
- Q.2** (a) What calculations are carried for distribution of compressed air? **07**
(b) What is Rope capels? Describe the process of capping the wire ropes. **07**
- OR**
- (b) Explain the construction of wire ropes with diagram. **07**
- Q.3** (a) What are the different types of wire ropes used in mines? **07**
(b) Describe the construction of profile dumpers with diagram. **07**
- OR**
- Q.3** (a) Explain the types of mine locomotives. **07**
(b) What design calculation is done in the construction of rope haulage? **07**
- Q.4** (a) Explain different mode of transporting material in mines. **07**
(b) Explain the construction of mine locomotive with figure? **07**
- OR**
- Q.4** (a) Why gage selection is important and what precautions are taken for lying down of tracks? **07**
(b) Explain the construction of mine tubs and car with diagram. **07**
- Q.5** (a) Write note on any two : **14**
1. Compressed air distribution.
2. Construction of rope haulage.
3. Rope tensioning.
4. Low profile dumpers.
