

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER 2013****Subject Code: 142201****Date: 19-12-2013****Subject Name: Mine Machinery-I****Time: 02:30 pm to 05:00 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 are the main parameters that are to be taken care in distribution of compressed air? **07**
- (b)** State the reasons for not using aerial ropeways in o/c mine. **07**
- Q.2 (a)** What is conveyor haulage? Explain its types and construction. **07**
- (b)** What are the criteria for selection of wire ropes? **07**
- OR**
- (b)** Describe various attachments of Mine tubs and cars. **07**
- Q.3 (a)** Describe various parameters affecting selection of wire rope in brief. **07**
- (b)** What are different rope splicing methods? Explain them. **07**
- OR**
- Q.3 (a)** What are the advantages of conveyor haulage over aerial rope ways system? **07**
- (b)** Explain the types of wire ropes and their construction. **07**
- Q.4 (a)** Explain the construction of mine tubs and cars. **07**
- (b)** What are the methods of transportation in mining? **07**
- OR**
- Q.4 (a)** What are different mine locomotives and explain their construction. **07**
- (b)** What is the need of exhaust trap in diesel locomotive? **07**
- Q.5 (a)** Write note on any two:- **14**
1. Mono cable aerial rope way.
 2. Recapping of winding rope.
 3. Coned-Socket type capel.
 4. Low profile dumpers.
