

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- V (New) EXAMINATION – WINTER 2019****Subject Code: 2152201****Date: 02/12/2019****Subject Name: Mining Machinery - II****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 are the benefits of multi rope winding? **03**
(b) Explain the parameters for selecting coal cutting equipment. **04**
(c) Explain the drum winder with neat sketch. **07**
- Q.2** (a) Explain automatic winding. **03**
(b) How efficiency of coal cutting equipments can be improved? **04**
(c) Describe principle and working of coal ploughs. **07**
- OR**
- (c) How maintenance of continuous miner carried out? **07**
- Q.3** (a) Explain any two screening equipment. **03**
(b) Explain side discharge loader with merits & demerits. **04**
(c) Explain the king detaching safety hook with sketch. **07**
- OR**
- Q.3** (a) What is the role of signaling system in winding? **03**
(b) Write note on Rigid Guides. **04**
(c) Explain the koepe winder with neat sketch. **07**
- Q.4** (a) Write note on Pit-top layout. **03**
(b) Explain the modern technology used in mining machinery. **04**
(c) Explain the head gear design with proper figure. **07**
- OR**
- Q.4** (a) Write note on Cage and Skip. **03**
(b) Write the advantages & disadvantages of koepe winding. **04**
(c) Explain Ward Leonard Control system with neat sketch. **07**
- Q.5** (a) Describe use of creeper. **03**
(b) Write a short note on different shaft fitting method. **04**
(c) Write a short note on Electrical Braking. **07**
- OR**
- Q.5** (a) What do you mean by workability of coal? **03**
(b) Write a short note on Safety devices. **04**
(c) Write a short note on Mechanical Braking. **07**
