

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – WINTER 2013****Subject Code: 152201****Date: 27-11-2013****Subject Name: Mining Machinery - II****Time: 10:30 pm 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) Describe run round arrangement at pit-top with neat sketch. **07**
 (b) Explain the purpose of head gear and head gear design with neat sketch. **07**
- Q.2** (a) Explain the working of continuous miner. State the limitation of it. **07**
 (b) Write a note on different shaft fittings used in shaft. **07**
- OR**
- (b) Describe the Ormerod Detaching Safety hook with its sketch when over winding is occur. **07**
- Q.3** (a) Give the factors for selecting the coal cutting equipments. **07**
 (b) Explain working of [1] Drum winding [2] Ward leonard control. **07**
- OR**
- Q.3** (a) Describe with sketch layouts of railways siding of mines. **07**
 (b) Explain the functioning of [1] Multi rope winding [2] Rigid & rope guide. **07**
- Q.4** (a) List out mechanical loader used in underground mining. Describe one of them, stating its limitations. **07**
 (b) Describe any one method of electrical braking in winding. **07**
- OR**
- Q.4** (a) What do you mean by workability of coal? **07**
 (b) Describe safety regulations in different signaling system in mines. **07**
- Q.5** (a) Explain [1] Creepers [2] Trippers. **07**
 (b) Describe coal plough used on longwall faces for cutting and loading coal simultaneously. **07**
- OR**
- Q.5** (a) Explain side discharge loader with neat figure. State its application & limitations. **07**
 (b) Describe automatic winding system with its advantages and disadvantages. **07**
