

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER 2013****Subject Code: 152201****Date: 14-05-2013****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 principle, operation and design of head gear with sketch. **07**
(b) List out of safety devices in winding system. **07**

- Q.2** (a) Write short note on Ward Leonard Control. **07**
(b) Explain various methods of electrical breaking. **07**

OR

- (b) Explain comparison between rigid guides & rope guides. **07**
- Q.3** (a) Write short note on creepers & tipplers. **07**
(b) Explain parameter for selecting coal cutting equipments. **07**

OR

- Q.3** (a) Give the pit-top layout with a shunk back arrangement. **07**
(b) What are the various shaft fittings? **07**

- Q.4** (a) Explain working of (1) Gathering arm loader (2) Flight loader. **07**
(b) Explain construction, principle, and operation of coal plough. **07**

OR

- Q.4** (a) Give the pit-bottom layout with a run round arrangement. **07**
Q.4 (b) Write short note on safety detaching hooks. **07**

- Q.5** (a) Explain side discharge loader with merits & demerits. **07**
(b) Explain signalling safety regulations & various signalling system used in mines. **07**

OR

- Q.5** (a) Explain the limitations for the working of a continuous miner. **07**
(b) Explain advantages & disadvantages of koepe winding system. **07**
