

Seat No.: _____

Enrolment No. _____

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

Subject Code: 152201

Date: 02/05/ 2015

Subject Name: Mining Machinery-II

Time: 02.30pm-05.00pm

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) Mention various shaft equipment normally present for winding. **07**
(b) Briefly describe the use of continuous miners for winning of coal. **07**
- Q.2** (a) Briefly explain the essential constituents of a cage suspension gear. **07**
(b) What is the necessity of pit top and pit bottom layouts? Sketch and describe any one pit top layout. **07**
- OR**
- (b) Explain working principal and necessity of detaching hook. **07**
- Q.3** (a) Compare Drum winding and Friction winding system used in shafts. **07**
(b) With the help of neat diagram show what is the role of safety catches in headgear? **07**
- OR**
- Q.3** (a) Briefly explain mechanical braking for winding system. **07**
(b) Write a short note on shaft guides. **07**
- Q.4** (a) What do you understand by Automatic Contrivances? What are its functions/purposes? **07**
(b) Write a short note on face loaders for board and pillar working. **07**
- OR**
- Q.4** (a) Briefly suggest main types of coal face machines in relation to the method of mining. **07**
(b) Write a short note on roadheader. **07**
- Q.5** (a) Briefly describe factors affecting choice of coal cutting machine. **07**
(b) Write a short note on shearers used for coal cutting. **07**
- OR**
- Q.5** (a) Draw a neat layout showing board and pillar development by LHD. **07**
(b) Explain Ward Leonard Control system for winders. **07**
