

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018

Subject Code:2152201

Date:11/12/2018

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.

	MARKS
Q.1 (a) Write the importance of Angle of fleet.	03
(b) Draw a layout of winding system with skip and cage.	04
(c) Explain the head gear design with proper figure.	07
Q.2 (a) Describe the main purpose of headgear.	03
(b) Differentiate between rigid guides & rope guides.	04
(c) Give the pit-top layout with a shunk back arrangement.	07
OR	
(c) Explain working of (1) Gathering arm loader (2) Flight loader.	07
Q.3 (a) Write the application of detaching hook in head gear.	03
(b) Describe the application of cage.	04
(c) Explain the koepe winder with neat sketch.	07
OR	
Q.3 (a) Write a short note on tiplers.	03
(b) Describe the application of skip.	04
(c) Explain the drum winder with neat sketch.	07
Q.4 (a) Write the working of rope in friction winding.	03
(b) Describe the working of continuous miners.	04
(c) Write a note on Ward Leonard Control.	07
OR	
Q.4 (a) What do you understand by winding?	03
(b) What is the role of signaling system in winding?	04
(c) Write a note on coal cutting mechanism.	07
Q.5 (a) Why tail rope is used behind cage?	03
(b) Write a short note on coal plough.	04
(c) Write a short note on mechanical braking system of winding system.	07
OR	
Q.5 (a) Write the function of safety catches.	03
(b) Write a short note on creeper.	04
(c) Write a short note on electrical braking system of winding system.	07
