Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION - SUMMER • 2014

•		e: 152201 Date: 11-06-201 e: Mining Machinery - II	4
•	0:30	pm to 01:00 pm Total Marks: 7	0
1.	Attei Mak	mpt all questions. e suitable assumptions wherever necessary. res to the right indicate full marks.	
Q.1	(a)	Explain the purpose and design of headgear with a neat illustrative diagram.	07
	(b)	Describe with sketch (i) Rigid guides and (ii) Rope guides.	07
Q.2	(a)	Explain the following (1) Skips (2) Cages (3) Suspension gear	07
	(b)	List out the safety devices in winders. OR	07
	(b)	What do you mean by workability of coal?	07
Q.3	(a)	Describe with a neat sketch pit top layout with a run round	07
	(b)	arrangement. Write a short note on (1) Creepers (2) Tipplers.	07
Q.3	(a)	OR Describe with a neat sketch pit top layout with a shunt back	07
	(b)	arrangement. What do you mean by side discharge loader? Explain it with diagram. What are the advantages and disadvantages of side discharge loader used in underground mines?	07
Q.4	(a)	Explain the parameters for selecting coal cutting	07
	(b)	equipment. What is a koepe winding? Explain the merits & demerits of koepe winding system.	07
Q.4	(a)	OR Explain the principle of operation & construction features	07
	(b)	of coal plough. List out the various mechanical loaders used in underground mines.	07
Q.5	(a)	Describe the Continuous Minor with general layout at the	07
	(b)	face. Define the ward Leonard method of speed control. OR	07
Q.5	(a)	Describe the different signalling systems used in mines.	07
	(b)	Write a short note on the various types of detaching hooks.	07