Seat No.:	Enrolment No.

Subject Code:2142201

**Subject Name: Mining Machinery-I** 

**(b)** Explain about sleepers and ballast.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-IV(New) EXAMINATION - SUMMER 2016** 

Date:10/06/2016

		Marks: 70	
Ins	structio		
	1.	• •	
		. Make suitable assumptions wherever necessary.	
	3.	. Figures to the right indicate full marks.	
			MARKS
Q.1		<b>Short Questions</b>	14
	1	Define Lang's lay.	
	2	What is rope splicing?	
	3	Definitions of Monkey catch.	
	4	What is stop-block?	
	5	Explain the transportation system in underground mines.	
	6	What is drop Warwick.	
	7	Explain neat sketch cam clip.	
	8	Define the following term: preformed wire rope.	
	9	What do you mean by king wire rope?	
	10	Give any two differences between gravity rope haulage and Endl rope haulage.	ess
	11	Define the term: Angle of fleet.	
	12	What is the difference between skip and koepe winding?	
	13	What do you mean by Stranded rope?	
	14	In which case aerial rope way used?	
Q.2		Explain compressed air Vs electricity as power.	03
		Explain the various types of Aerial rope way system	04
	(c)	Write a short note on shuttle car	07
	(-)	OR	
	<b>(c)</b>	Describe rope tensioning arrangement in ropeway.	07
Q.3	$(\mathbf{a})$	What is rope splicing? Describe in details.	03
	<b>(b)</b>	Write short note on diesel locomotives	04
	(c)	Write a note on pipelines and distribution of compressed air.	07
		OR	
Q.3	(a)	What are different methods of transport system used in underground mine	03
	<b>(b)</b>	Describe process of capping and rope capel in brief.	04
	<b>(c)</b>	Write a short note on installation and test of wire ropes.	07
<b>Q.4</b>	(a)	Write a short note on gravity rope haulage.	03
	<b>(b)</b>	Write short note on Clifton pulley	04
	<b>(c)</b>	Write short note on SDL and LHD	07
		OR	
<b>Q.4</b>	(a)	Explain neat sketch with Endless rope haulage.	03
	<b>(b)</b>	Write the advantages & disadvantages of direct rope haulage.	04
	<b>(c)</b>	Write a short note on belt conveyor system.	07
Q.5	(a)	Explain the selection parameters of wire ropes.	03

(c) Explain the advantages and disadvantages of compressed air over other

**04** 

**07** 

power source.

## OR

Q.5	(a)	What precautions are taken cage for gage selection and lying down of	03
	<b>(b)</b>	tracks? Explain main & tail rope haulage with sketch.	04
	(c)	Explain i) Mass of rope ii) Strength of rope	07

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