Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION - WINTER • 2014

Date: 01-12-2014

Subject Code: 160603

	_	ect Name: Railway Bridge and Tunnel Engineering : 02:30 pm - 05:00 pm Total Marks: 70 ctions:	
		 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a) (b) (c)	What are the advantages of railways? Compare roadway with railways. Explain various types or rails with sketch.	03 04 07
Q.2	(a) (b)	Discuss factors affecting on the choice of gauge. Explain loading gauge and construction gauge with figure. OR	07 07
	(b)	Describe the common types of sudden rail failures.	07
Q.3	(a) (b)	Why are marshalling yards necessary? Describe the layout of a typical marshalling yard. Write short note on sleeper density.	07 07
	(D)	OR	07
Q.3	(a) (b)	Describe briefly the process of screening of ballast. Draw a sketch of Right hand turnout and loose head type switch.	07 07
Q.4	(a) (b)	Write short note on suspension bridge. Explain the methods of strengthing of bridge superstructure. OR	07 07
Q.4	(a) (b)	Explain with neat sketches various types of bearing used for steel bridge. Explain about ideal bridge site characteristics.	07 07
Q.5	(a)	Enlist out various method of tunneling in hard rock. Explain drift method of tunneling rock.	07
	(b)	Explain the process of mechanical ventilation in tunnel. OR	07
Q.5	(a) (b)	State and explain the methods adopted for controlling dust inhalation. Discuss about(i) Tunnel lining (ii) Lighting in tunnels.	07 07
