Seat No.: Enrolment No	Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII EXAMINATION - SUMMER 2016

Subject Code:182601 Date:10/05/2016

Subject Name: Tyre & Tube Technology

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

Q. 1	(a)	List all the components of Tyre. Explain any six.					
	(b)	Write a note on Tyre & Rim dimensions and importance of aspect ratio.	(07)				
Q. 2	(a)	Explain the structural differences between radial and bias tyre and thereby explain any two advantages of radial over bias tyre.					
Q. 2	(b)	Discuss the compound design of Plies and Inner liner.					
		OR					
Q. 2	(b)	Draw the mixing process chart for Truck Tyre. Explain the mixing process.	(07)				
Q. 3	(a)	In which area of truck tyre manufacturing Hot Feed Extruder is used? Which kind of Hot Feed Extruder is used? Explain that process with flow sheet.					
	(b)	Short note on: "Tyre moulds".	(07)				
		OR					
Q. 3	(a)	Describe the tyre building method for Radial tyre.	(07)				
	(b)	Discuss on Tyre Building Drums.	(07)				
Q. 4	(a)	Write about the practical manufacturing problems in tyre industry.					
	(b)	Analyse the tyre performance with respect to tyre stiffness.	(08)				
		OR					
Q. 4	(a)	Discuss the tread design and its Importance.	(07)				
	(b)	Analyse and evaluate the tyre Rolling Resistance.	(07)				
Q. 5	(a)	Explain the moulding process for tyre flap.	(06)				
	(b)	Give the importance of chilling process in Automobile Tube manufacturing.	(02)				
	(c)	Discuss the manufacturing process of Cycle tyre.	(06)				

Q. 5 (a) Name the process for Retreading. Which one is better? Explain that process. (07)

(b) Discuss the mandrel method for manufacturing Cycle tube. (07)