Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER-I(New course) • EXAMINATION - WINTER- 2015

Subj	Subject Code: 2714008 Date: 04/0		1/2016	
Subj	ect N	ame: Rubber Bonding & It's Technology		
Time: 2:30 pm to 5:00 pm Total Ma			s: 70	
Instru				
		Attempt all questions.		
		Make suitable assumptions wherever necessary.		
	3. 1	Figures to the right indicate full marks.		
Q. 1	(a)	How the Autohesion is important factor for unvulcanised rubber bonding? Explain in detail with example.	(07)	
	(b)	Describe the factors which affecting Adhesion of Rubbers.	(07)	
Q. 2	(a)	List out the bond system characteristics. Explain any one in detail.	(07)	
	(b)	Give the name of various Bond Failures for Rubber to Metal bonding and Explain in detail.	(07)	
		OR		
	(b)	Define the term "Metallic Coagent." Discuss the effect of metallic coagents on Tensile properties and Scorch safety of rubber.	(07)	
Q. 3	(a)	Explain in detail about Zinc Coating method for the metal surface preparation.	(07)	
	(b)	Describe the Abrasive and Chemical techniques for plastic substrate preparation.	(07)	
		OR		
Q. 3		Discuss in Detail about advantages of the Wet Blast Phosphating Plant.	(14)	
Q. 4	(a)	List out the Mechanical treatment of metals. Explain any one in detail.	(07)	
	(b)	Describe the Shelf life consideration with their categories for rubber to metal and other substrate bonding.	(07)	
		OR		
_	(a)	Discuss in detail about Chemical preparation for metal surface.	(07)	
	(b)	Give the difference between the solvent borne & Water borne bonding System.	(07)	
Q. 5		Write the Different sources which occurs Corrosion in service. Explain all in Detail.	(14)	
		OR		
Q. 5	(a)	Explain any two factors which affect bonding of Vulcanized Rubber to Vulcanized Rubber.	(07)	
	(b)	Define the Term "Fixing". Explain the Methods to prevention of Fixing in Detail.	(07)	
