Seat No.:	Enrolment No
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## GUJARAT TECHNOLOGICAL UNIVERSITY ME- SEMESTER II— EXAMINATION – SUMMER 2015

Subject Code: 2724002			Date: 28/05/2015	
Subject Name: Rubber Blends Time: 2:30 PM – 5:00 PM Instructions:		0 PM - 5:00 PM Total M	Total Marks: 70	
	2. N	Attempt all questions.  Aake suitable assumptions wherever necessary.  Sigures to the right indicate full marks.		
Q. 1		Describe in detail about blends of Carboxylated Elastomers with other polymers.	n (14)	
Q. 2	(a)	Explain the physical properties of NR/EPDM blends for light coloured application.	t (07)	
Q. 2	(b)	Discuss the effects of incorporating High vinyl Polybutadiene rubber (Hv-BR) in to NR/ENR-25 blends.	e (07)	
		OR		
	(b)	Short note on: õ Multiphase Rubber Blendsö	(07)	
Q. 3	(a)	Describe the basic problems and solutions for NR/NBR cure system	. (07)	
	(b)	How to improve the physical properties of NR/NBR blends by using graft copolymers? Explain it in detail.	g (07)	
		OR		
Q. 3	(a)	Give the name of compatibilizing agent use for NR/NBR blends. Explain their effects on crosslink distribution of NR/NBR blends.	(07)	
	(b)	Short note on: õSandwich mix cycleö.	(07)	
Q. 4	(a)	Define the term õDynamic vulcanisationö. Discuss the dynamic curing systems for NR/EPM blends.	(07)	
	(b)	õNR/EPM blends protect the environmental damageö Justify the statement.	e (07)	
		OR		
Q. 4		Explain the formulation, compounding, mixing & properties of Foorproduct application.	d (14)	
Q. 5	(a)	Describe the different approaches used for improving NR/EPDN blend properties.	<b>1</b> (07)	
	(b)	Explain the formulation development & processing of NR/EPDN blends for extruded profile weather strip.	<b>I</b> (07)	
		OR		
Q. 5		List the analytical methods for rubber blend characterization Explain any two in detail.	. (14)	