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

## ME SEMESTER II EXAMINATION – SUMMER 2017

Subject Name: Rubber Blends		ode: 2724002 Date:2	Date:26/05/2017	
		Marks: 70		
HISTI	1. A 2. N	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q. 1	(a)	Justify the role of MG30 rubber as a compatibalizer in NR/NBI blends.	R ( <b>04</b> )	
	<b>(b)</b>	List the factors which affecting the Rubber Blend properties.	(03)	
	<b>(c)</b>	Describe the basic problems and solutions for NR/NBR cure system	. (07)	
Q. 2	(a)	Discuss about the resistance to environmental damage by NR/EPN blends.	<b>(07)</b>	
	<b>(b)</b>	Short note on: "Sandwich mix cycle".  OR	(07)	
Q. 2	<b>(b)</b>	Explain the dynamic vulcanization of NR/EPM gum blends.	<b>(07)</b>	
Q. 3	(a)	Discuss about the effect of incorporating HV-BR into NR/ENR-2 blends.	5 (07)	
	<b>(b)</b>	Explain in detail about the effect of Polychloroprene content o crosslink distribution & physical properties.  OR	n ( <b>07</b> )	
Q. 3	(a)	Write about the importance of NR/EPM Blends.	(03)	
	<b>(b)</b>	Discuss about the blending methods for NR/NBR blends wit NR/PMMA graft copolymer.	h ( <b>04</b> )	
	(c)	Discuss in detail about the modification of different EPDM grade & also discuss the interaction of modified EPDM & Carbon Black.	s ( <b>07</b> )	
Q. 4	(a)	Explain about the high temperature curing effects on NR/EPDN blends.	<i>M</i> ( <b>07</b> )	
	<b>(b)</b>	Discuss in detail about weathering and ozone testing of NR/EPDN blends for light coloured application.  OR	<i>I</i> (07)	
Q. 4	(a)	Describe in detail about the different approaches used for improvin NR/EPDM blend properties.	g ( <b>07</b> )	
	<b>(b)</b>	Explain in detail about initial extrusion trails of NR/EPDM blend for extruded profile weather strip.	s ( <b>07</b> )	
Q. 5		Explain the formulation, compounding, mixing & properties of Food Product application.	d (14)	
		OR		
Q. 5		List the analytical methods for rubber blend characterization. Explain any two in detail.	(14)	
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