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

**BE - SEMESTER-IV • EXAMINATION - WINTER • 2014** 

Su	bject	Code: 143602 Date: 31-12-2014	
Su	bject	Name: Rubber Chemistry and Natural Polymers	
	-	2:30 pm - 05:00 pm Total Marks: 70	
	truction	•	
	1.	Attempt all questions.	
	2.	Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Explain in detail the chemistry of natural rubber.	07
	<b>(b)</b>	Write in short about the collection of latex and the process of purification of	07
		rubber.	
Q.2	(a)	Describe in short the chemistry of starch.	07
	<b>(b)</b>	Write in detail the modification process of the natural polymers.	07
		OR	
	<b>(b)</b>	Describe in short the chemistry of cellulose.	07
Q.3	(a)	Write in brief about biopolymers with suitable example.	07
	<b>(b)</b>	Explain us the importance of biopolymers in our daily life.	07
		OR	
Q.3	(a)	Describe the properties of biopolymers and also mention the application of the biopolymers.	07
	<b>(b)</b>	Explain the mechanism that is by what method the biopolymers can be produced.	07
Q.4	(a)	Explain in detail the chemistry of butyl rubber.	07
	<b>(b)</b>	Write a short note on the chemistry of nitrile rubber.	07
		OR	
Q.4	(a)	Describe in detail the chemistry of lignin.	<b>07</b>
	<b>(b)</b>	Explain in suitable manner the chemistry of protein.	07
Q.5	(a)	Explain in detail the chemistry of Neoprene rubber.	07
	<b>(b)</b>	Describe in short the modification process of rubbers.	07
		OR	
Q.5	(a)	Write in detail how the rubber is vulcanized.	07
	<b>(b)</b>	Describe in detail the chemistry of synthetic rubbers and elastomers.	07

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