Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER- IV • EXAMINATION – SUMMER 2015

Subject Code: 143404			Date: 05/06/2015	
Ti	me: 1 truction		70	
	1. 2. 3.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.		
Q.1	(a)	Define: (1) Polymer (2) Polymerization (3) Monomer (4) Thermoplastic (5) Thermosets (6) Biodegradable Polymer (7) Crystalline Polymer	07	
	<b>(b)</b>	Explain Bulk Polymerization Method in detail.	07	
Q.2	(a) (b)	Explain manufacturing process, properties and application of LDPE. Which are the monomers of Nylon 66? List properties and application of Nylon 66.	07 07	
		OR		
	<b>(b)</b>	Explain manufacturing process of Urea Formaldehyde (UF).List general properties of UF.	07	
Q.3	(a)	Write down the properties and application of PS and polycarbonate.	07	
	<b>(b)</b>	Write down structure of PVC. Explain properties and application of PVC. <b>OR</b>	07	
Q.3	(a)	What are engineering plastics? Write properties and application of PET as an engineering plastic.	07	
	<b>(b)</b>	Write a note on conductive polymer.	<b>07</b>	
Q.4	(a) (b)	Explain the application of plastics in medical and packaging fields.  Compare: Suspension Polymerization with Solution Polymerization.  OR	07 07	
Q.4	(a)	Write down structure, properties and application of polyacetal.	07	
	<b>(b)</b>	Write down structure, properties and application of PMMA.	07	
Q.5	(a)	Write down the preparation, structural properties and applications of Polypropylene.	07	
	<b>(b)</b>	Mention the general properties and application of PTFE.  OR	07	
Q.5	(a)	<ul><li>(1) Explain: Why Thermoset plastics are not recyclable?</li><li>(2) Write application of Polyurethane.</li></ul>	07	
	<b>(b)</b>	List types of recycling of plastics materials. Explain any one in detail.	07	

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