Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 132302 **Date: 05-01-2013**

Subject Name: Manufacturing of Plastic Materials-I

Time: 10.30 am – 01.00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Give a brief description about solution polymerization technique.	**07**
	(b)	Discuss the manufacturing process of butadiene monomer.	**07**
Q.2	**(a)**	What are the different types of copolymers? Explain.	**07**
	(b)	Draw the plant layout of any plastic material manufacturing industry.	**07**
		OR	
	(b)	Explain about stereo regular polymers with example.	**07**
Q.3	**(a)**	Write the manufacturing technique of ethylene monomer.	**07**
	(b)	What are the linear, branched and cross linked polymers.	**07**
		OR	
Q.3	**(a)**	Discuss the suspension polymerization technique.	**07**
	(b)	Explain in short a) CMC b) Initiator c) Curing	**07**
Q.4	**(a)**	Explain the manufacturing process of Resols and Novalacs.	**07**
	(b)	Explain the properties and applications of thermoset polyester resins.	**07**
		OR	
Q.4	**(a)**	Explain the properties of UF and MF resins.	**07**
Q.4	**(b)**	Explain the manufacturing process of epoxy resins.	**07**
Q.5	**(a)**	Draw the layout of Naphtha Cracking Process.	**07**
	(b)	Discuss about UF moulding powder.	**07**
		OR	
Q.5	**(a)**	Discuss the manufacturing process of MF resins.	**07**
	(b)	Explain the properties of epoxy resins	**07**

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