Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-III Regular / Remedial Examination December 2010

Subject code: 132302
Subject Name: Manufacturing of Plastic Materials- I

Date: 16 /12 /2010 **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 suspension polymerization technique.	**07**
	(b)	Discuss the manufacturing process of styrene and vinyl chloride monomers.	**07**
Q.2	**(a)**	Define the following a)Copolymer b)Blend c) Initiator	**07**
	(b)	Draw the plant layout of any plastic material manufacturing industry.	**07**
		OR	
	(b)	What are the stereo regular polymers? Explain.	**07**
Q.3	**(a)**	Write the manufacturing technique of propylene monomer.	**07**
	(b)	Differentiate between homopolymer and copolymer with suitable examples.	**07**
		OR	
Q.3	**(a)**	Discuss the emulsion polymerization technique.	**07**
	(b)	Discuss the steam cracking mechanism of ethane as feed.	**07**
Q.4	**(a)**	Differentiate between Thermoplastics & Thermosets with suitable examples.	**07**
	(b)	Differentiate between linear, branched and cross linked polymers.	**07**
		OR	
Q.4	**(a)**	Draw the layout of Naphtha Cracking Process.	**07**
	(b)	Explain in short a)Bulk polymerization b)Curing c) Inhibitor	**07**
Q.5	**(a)**	Give properties and applications of epoxy resins.	**07**
	(b)	Explain the manufacturing process of Novalacs.	**07**
		OR	
Q.5	**(a)**	Explain the manufacturing process of Urea formaldehyde resin.	**07**
	(b)	Explain the properties and applications of Unsaturated Polyester resins.	**07**

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