

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III • EXAMINATION – SUMMER • 2014

Subject Code: 132302**Date: 28-05-2014****Subject Name: Manufacturing of Plastic Materials - I****Time: 02.30 pm - 05.00 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) Explain Solution polymerization with Advantages and Disadvantages? **07**
(b) What is Homopolymer and Copolymer? **07**
- Q.2** (a) Explain production and manufacturing of Acrylonitrile with a flow sheet? **07**
(b) What is tacticity? What are the types of tacticity? **07**
- OR**
- (b) What are the properties and application of Epoxy resins? **07**
- Q.3** (a) Explain the manufacturing process of Phenol formaldehyde(Resol)? **07**
(b) Difference between Thermoplastic and Thermoset polymer? **07**
- OR**
- Q.3** (a) Explain the manufacturing process of Unsaturated polyester resins? **07**
(b) What is crystalline polymer & what is amorphous polymer? **07**
- Q.4** (a) What is CMC? Explain Emulsion polymerization in detail? **07**
(b) Difference between Linear and Crosslinked polymer? **07**
- OR**
- Q.4** (a) What are the properties and application of UF and MF Resin? **07**
(b) Explain the manufacturing process of Butadiene monomer? **07**
- Q.5** (a) Explain Naptha Cracking with a labelled diagram? **07**
(b) Differentiate between Confirmation and Configuration? **07**
- OR**
- Q.5** (a) Explain the manufacturing process of Vinyl chloride monomer with the help of a flow sheet? **07**
(b) List out difference between novalac and resols? **07**
