

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III • EXAMINATION – SUMMER 2013****Subject Code: 132302****Date: 29-05-2013****Subject Name: Manufacturing of Plastic Materials****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) Discuss the manufacturing process of styrene and vinyl chloride monomers. **07**  
(b) Give a brief description about suspension and emulsion polymerization technique. **07**
- Q.2** (a) Define the following a) Copolymer b) Blend c) Initiator **07**  
(b) Explain differentiate between Thermoplastics and Thermo- sets? **07**  
**OR**  
(b) What are the stereo regular polymers? Explain. **07**
- Q.3** (a) Explain the term Confirmation and Configuration with suitable examples **07**  
(b) Draw the layout of Naphtha Cracking Process. **07**  
**OR**
- Q.3** (a) Differentiate between homopolymer and copolymer with suitable examples. **07**  
(b) Write the manufacturing technique of acrylonitrile monomer. **07**
- Q.4** (a) Explain differentiate between copolymer and blend. **07**  
(b) Explain in short a) Bulk polymerization b) Curing c) chain polymerization **07**  
**OR**
- Q.4** (a) Explain manufacturing process of Melamine Formaldehyde resin. **07**  
(b) Differentiate between Linear and Cross linked Polymer **07**
- Q.5** (a) Explain the properties and applications of Unsaturated Polyester resins. **07**  
(b) Give properties and applications of epoxy resins. **07**  
**OR**
- Q.5** (a) Explain the manufacturing process of Resols. **07**  
(b) Draw a plant layout of PVC as Plastics raw material industry **07**

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