

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III • EXAMINATION – SUMMER 2015

Subject Code: 132302**Date: 29/05/2015****Subject Name: Manufacturing of Plastic Materials-I****Time: 02.30pm-05.30pm****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 about Bulk Polymerization in detail. **07**
(b) Explain the manufacturing process of Urea formaldehyde resin. **07**

- Q.2** (a) Explain: Naphtha Cracking process. **07**
(b) Define: (1) Copolymer (2) Blend (3) Initiator (4) Atactic (5) Isotactic
(6) Curing (7) condensation polymerization **07**

OR

- (b) Discuss the manufacturing process of ethylene. **07**

- Q.3** (a) Compare: Suspension Polymerization and Emulsion Polymerization. **07**
(b) Explain Geometric Isomerism of Polybutadiene. **07**

OR

- Q.3** (a) Explain manufacturing technique of propylene monomer with neat sketch. **07**
(b) Discuss the steam cracking mechanism of ethane as feed stock. **07**

- Q.4** (a) Explain the properties and applications of Phenol Formaldehyde resin. **07**
(b) Explain the manufacturing process of Unsaturated Polyester resins. **07**

OR

- Q.4** (a) Explain Urea cracking process in detail. **07**
(b) Discuss the manufacturing process of vinyl chloride monomers. **07**

- Q.5** (a) Explain about stereo regular polymers. **07**
(b) Differentiate between following with suitable examples. **07**
(1) Thermoplastics & Thermosets (2) Linear, branched and cross linked polymers

OR

- Q.5** (a) Explain conformation and configuration with suitable examples **07**
(b) Give a brief description about suspension polymerization technique. **07**
