

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 2132302****Date: 30-12-2014****Subject Name: Manufacturing of Plastic Materials-1****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) Define Monomer and Polymer and give five examples of monomer and their polymer. **07**
(b) Give synthesis of Novalac and Resole. **07**
- Q.2** (a) State properties and application of Phenol formaldehyde resin. **07**
(b) Write a note on UF and MF resin. **07**
- OR**
- (b) Give example of thermoplastics polymers and explain Polypropylene in detailed. **07**
- Q.3** (a) Explain the term Confirmation & Configuration with suitable example. **07**
(b) Give distillation of Naphtha in details. **07**
- OR**
- Q.3** (a) Give synthesis, properties and application of Epoxy resin. **07**
(b) Draw the layout of Naphtha Cracking Process. **07**
- Q.4** (a) Give detail synthesis of phenol monomer and urea monomer. **07**
(b) Write note on Polyester resin. **07**
- OR**
- Q.4** (a) Explain monomers for polyurethane resin along with examples. **07**
(b) Give application and properties of polyurethane resins. **07**
- Q.5** (a) Give synthesis, properties and application of PET. **07**
(b) Explain silicon polymers along with examples. **07**
- OR**
- Q.5** (a) Give difference between thermosets and thermoplastic polymers. **07**
(b) Explain Atactic, Isotactic and Syndiotactic polymers. **07**
