

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV • EXAMINATION – WINTER • 2014

Subject Code: 143404**Date: 02-01-2015****Subject Name: 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) Define Macromolecule and explain suspension polymerization in detail. **07**
(b) Write a note on Bulk polymerization along with example. **07**
- Q.2** (a) Differentiate Thermoplastic and Thermosets. **07**
(b) Give various forms of Polyethylene and discuss its applications. **07**
- OR**
- (b) Write down synthesis, properties and application of PVC. **07**
- Q.3** (a) Give properties and application of PET and PBT **07**
(b) Discuss engineering plastic and give details for Polyether ether ketone (PEEK). **07**
- OR**
- Q.3** (a) Give different form of Nylons and explain any one in detail. **07**
(b) Write a note on Emulsion polymerization. **07**
- Q.4** (a) Give synthesis, properties and application of ABS polymer. **07**
(b) Enlist properties and application of Polycarbonate. **07**
- OR**
- Q.4** (a) Write a note on water soluble polymers along with examples. **07**
(b) Explain Liquid Crystal Polymers. **07**
- Q.5** (a) Write a note on PF (Phenol-formaldehyde) resin. **07**
(b) Give Synthesis, properties and application of Epoxy resin. **07**
- OR**
- Q.5** (a) Discuss recycling of polymers and enlist the recycling code for thermoplastics. **07**
(b) Write a note on application of polymers in electrical, sports and medical fields. **07**
