

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – WINTER 2013****Subject Code: 153606****Date: 04-12-2013****Subject Name: Technology of Polymeric & Rubber Materials - II****Time: 10.30 am - 01.00 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 different types of oil modification undertaken to alter the drying rate of Oils. **07**
(b) Give six example of raw material used for Amino resin synthesis with Structure and properties. Enumerate various application of Amino resin. **07**
- Q.2** (a) Write a short note on synthesis of Epoxy resin. **07**
(b) Write a short note on modification of Epoxy resin. **07**
OR
(b) Write a short note on curing of Epoxy resin. **07**
- Q.3** (a) Give twelve example of raw material used for Alkyd resin synthesis with Structure and properties. **07**
(b) Write a short note on Curing Mechanism and Modification of Alkyds resin. **07**
OR
- Q.3** (a) Explain Manufacturing of Alkyd resin using oil. **07**
(b) Explain Manufacturing of Alkyd resin using Fatty acid. And give advantages and disadvantages over oil process. **07**
- Q.4** (a) Write a short note on thermosetting acrylics and monomers used for application for acrylic resins. **07**
(b) Explain the synthesis; main monomers and application for Polyurethane resins. **07**
OR
- Q.4** (a) Write a short note on synthesis of Silicone Resin and its application. **07**
(b) Write a short note on cross linking and vulcanization of Rubber. **07**
- Q.5** (a) Write a short note on synthesis of Phenolic Resin. **07**
(b) Write a short note on rosin modification and oil modification of Phenolic Resin. **07**
OR
- Q.5** (a) Differentiate between i) Novolac and Resol ii) Saturated and Unsaturated Fatty acid. **07**
(b) Write a short note on Polyester resin. **07**
