

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII • EXAMINATION – WINTER • 2014****Subject Code: 172301****Date: 25-11-2014****Subject Name: Advance Plastics Processing****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)** What is basic principle of Calendaring process? List and Explain various steps of Calendaring process with neat sketch. **07**
- (b)** Define Casting. List and Explain various steps involved in manufacturing product by casting process using unsaturated Polyester resin as a basic raw material. **07**
- Q.2 (a)** Define Dip molding. Explain Dip molding and Slush molding process. **07**
- (b)** List the various techniques are available for finishing and machining of plastics. Explain any two. **07**
- OR**
- (b)** Explain about Reaction Injection Molding process with neat sketch. **07**
- Q.3 (a)** Define and Explain Encapsulation Process with its application. **07**
- (b)** (1) List the advantages and dis-advantages of RIM. **04**
(2) List the application of semi-rigid foam and rigid foam. **03**
- OR**
- Q.3 (a)** Explain manufacturing process of Flexible foam product using PU as raw material with neat sketch. **07**
- (b)** Explain about Ribbon Blender with neat sketch. **07**
- Q.4 (a)** Define (1) Initiator (2) Inhibitor (3) Foam plastics (4) K factor (5) Blowing agent (6) Compression set (7) Coating **07**
- (b)** Draw Line diagram of three layer film manufacturing for milk pouch and Explain it. **07**
- OR**
- Q.4 (a)** Explain Electrostatic fluidized bed method with neat sketch. List advantages of Polymer coating over other coatings. **07**
- (b)** Explain about different types of roll arrangement for Calendaring process. **07**
- Q.5 (a)** What is the purpose of Decorating of plastics? List the various methods used for the decorating of plastics product. Explain In-Mold decorating method. **07**
- (b)** Explain Hot stamping process with neat sketch. **07**
- OR**
- Q.5 (a)** Compare: (1) Vacuum Metallizing with Electroplating **07**
(2) Rotational Molding with Extrusion Blow Molding.
- (b)** Explain Rotational Molding process with neat sketch. **07**
