

Seat No.: _____
No. _____

Enrolment

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

Subject Code: 172301

Date: 01/05/2015

Subject Name: Advance Plastics Processing

Time: 02.30PM-05.00PM

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 Reaction Injection Molding (RIM). Compare RIM with Thermoplastic Injection Molding Process. **07**
(b) Explain RIM process with neat sketch. Also List the application of RIM. **07**
- Q.2** (a) Explain manufacturing process of 6000 lit over head storage tank with neat sketch. Compare the process with Blow Molding Process. **07**
(b) List the various techniques are available for finishing and machining of plastics. Explain any two. **07**
- OR**
- (b) Draw Line diagram of five layer film manufacturing process for food packaging and Explain it. **07**
- Q.3** (a) Discuss: (1) Manufacturing Process of Acrylic sheet by casting. **07**
(2) Various mold materials used for casting process. **07**
(b) List the advantages of polymer coating over other coating. **07**
Explain Fluidized Bed method with neat sketch.
- OR**
- Q.3** (a) List the various surface treatments use for Plastics. Explain about corona discharge method with sketch. **07**
(b) Classify foam with their application. Explain General Production Methods. **07**
- Q.4** (a) List the welding techniques for Plastics materials. Explain any one in detail. **07**
(b) Explain High pressure structural foam molding process with neat sketch. **07**
- OR**
- Q.4** (a) Short Note: (1) Screen Printing (2) In-mold Decorating **07**
(b) Explain Hot Stamping Process with neat sketch. **07**
- Q.5** (a) Define (1) Initiator (2) Inhibitor (3) Foam plastics (4) K factor (5) Blowing agent (6) Compression set (7) Coating **07**
(b) Why Polyethylene products require some treatment before printing on it? Explain about Heat treatment process for Blow molded container. **07**
- OR**
- Q.5** (a) Define Casting. Explain manufacturing process of paper weight by using Unsaturated Polyester resin as a Raw material. **07**
(b) Define coating, Explain Dip Molding process in detail. **07**
