

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.

(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 **07**
(6) Compression set (7) Coating

(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**
