

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – III • EXAMINATION – WINTER • 2014

Subject code: 732401**Date: 25-11-2014****Subject Name: Plastic Packaging Technology****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) List the properties and applications of packaging 07
(b) Explain blown film extrusion, multilayer film extrusion and lamination with neat diagram 07
- Q.2** (a) Describe the various process variable and its effects in injection molding for manufacturing of packaging products 07
(b) Explain injection blow molding and stretch blow molding 07
- OR**
- (b) Explain the advantages and disadvantages of thermoforming 07
- Q.3** (a) Explain Vacuum forming, pressure forming, drape and snap back forming with diagram neatly 07
(b) Explain free forming, blister packs, and matched mold forming with neat sketch 07
- OR**
- Q.3** (a) Explain scrap less thermoforming, plug assisted thermoforming with neat sketch 07
(b) Define printing and also explain flexographic and rotogravier printing briefly 07
- Q.4** (a) Explain the testing methods in packaging like tensile properties, impact properties, burst and tear strength in detail 07
(b) Explain the terms clarity, haze and gloze with detailed example by differentiating them 07
- OR**
- Q.4** (a) Explain about the barrier properties briefly 07
(b) Explain 3 R briefly 07
- Q.5** (a) Describe the recycling related to packaging films and constrainers 07
(b) Explain waste management in simple words related to packaging 07
- OR**
- Q.5** (a) List the advantages of thermoforming with its different types 07
(b) Explain life cycle assesment 07
