

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME Semester –III Examination Dec. - 2011

Subject code: 732401

Date: 08/12/2011

Subject Name: Plastics Packaging Technology

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 properties & applications of Polypropylene in packaging **07**
(b) Explain properties & applications of Polyesters in packaging **07**
- Q.2** (a) What is the role of tie layer in Multilayer films? How multilayer films are superior to single layer films? **07**
(b) Differentiate between Injection Blow Moulding & Stretch Blow moulding **07**
- OR**
- (b) Explain the causes and solutions for defects : **07**
(i) Fish eye (ii) Burn marks
- Q.3** (a) Explain any two thermoforming processes in detail with applications **07**
(b) Explain about surface treatment methods for printing on plastic products **07**
- OR**
- Q.3** (a) Write short notes on Flexographic printing and Rotogravure printing **07**
(b) What are the advantages & disadvantages of thermoforming **07**
- Q.4** (a) How Optical properties of Plastic film can be evaluated? **07**
(b) What is MVTR and how it can be determined? **07**
- OR**
- Q.4** (a) Describe any three tests for evaluation of Plastic containers **07**
(b) Explain Dart impact test and Co – efficient of friction test for LDPE film **07**
- Q.5** (a) What is primary, secondary & tertiary recycling? Explain steps involved in recycling of plastics **07**
(b) Write short notes on (i) Shrink wrapping (ii) Lamination **07**
- OR**
- Q.5** (a) Explain Life cycle assessment with suitable example **07**
(b) Write short notes on **07**
(i) Effect of orientation on tensile strength and tear strength of Plastic film
(ii) Parison Programming
