Seat No.:	Enrolment No.

Subject Code:2722411

Subject Name: Plastics Packaging Technology

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E - SEMESTER II • EXAMINATION - SUMMER - 2017

Date:29/05/2017

Time:02:30 PM to 05:00 PM Instructions:			Total Marks: 70	
	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	What are the functions of Package? Give difference between Primary and Secondary Packaging.	07	
	(b)	Describe any Four types of Plastic Packaging Materials with their advantages and disadvantages.	07	
Q.2	(a)	What is Blown up ratio? Describe blown film manufacturing process with line diagram.	07	
	(b)	Explain Injection Blow Molding (IBM) process with neat diagram. Give difference between IBM and EBM OR	07	
	(b)	Discuss about Stretch Wrap and Shrink Wrap Form of Flexible Plastic Packaging.	07	
Q.3	(a) (b)	Explain Flexographic Printing and Rotogravure Printing with diagram. Explain Scrap-less Thermoforming Process with neat diagram along with its advantages and applications.	07 07	
Q.3	(a)	What is purpose of Labeling? Describe Hot Stamping process with neat diagram and also give their Applications.	07	
	(b)	Describe Vacuum Forming and Pressure Forming in detail.	07	
Q.4	(a) (b)	Explain Impact and Compression Testing for Packaging in detail. Explain Drop Testing and Vibration Testing in detail. OR	07 07	
Q.4	(a)	Where we Required Migration Test? Explain with Neat Sketch Water Vapour Transmission Rate (WVTR).	07	
	(b)	What are the Atmospheric factors that may cause the product to deteriorate? Define Clarity, Haze and Gloss in Packaging Industries?	07	
Q.5	(a) (b)	Explain Shelf Life of Packaging Material in detail. What are special requirements for Food and Medical Packaging? OR	07 07	
Q.5	(a)	State the importance of colour as sales medium. Describe Recycling of Plastic Materials.	07	
	(b)	Explain manufacturing of Soft Drink Bottles using Injection Stretch Blow Molding Process.	07	

1