Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016

Subject Code: 2722411 **Date: 27/05/2016**

Subject Name: Plastics Packaging Technology

Time:10:30 am to 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)**	Discuss the importance of colour as a sales medium. Discuss the factors to be considered for selection of colours for packaging.	**07**
	(b)	How many different types of paper available for packaging? Explain them in detail with treatment of papers.	**07**
Q.2	**(a)**	Define Packaging. Explain in brief Purpose of Packaging.	**07**
	(b)	Enlist the different types of plastic films available for packaging. Explain LLDPE and PS film.	**07**
		OR	
	(b)	List out the types of Plastics films used for Packaging. Explain about Polypropylene film with properties and application.	**07**
Q.3	**(a)**	What is Blown up ratio? Describe blown film manufacturing process with line diagram.	**07**
	(b)	Explain manufacturing of biaxial oriented cast film with neat diagram. Give difference between cast film and blown film.	**07**
		OR	
Q.3	**(a)**	Explain Injection blow molding (IBM) process with neat diagram. Give difference between IBM and EBM	**07**
	(b)	Discuss about stretch wrap and shrink wrap form of flexible plastic packaging.	**07**
Q.4	**(a)**	Where we required migration test? Explain with neat sketch Water Vapour Transmission Rate (WVTR).	**07**
	(b)	Describe Pad printing process with neat diagram and also give their applications.	**07**
		OR	
Q.4	**(a)**	What is Regular Slotted Container (RSC)? Enlist types of RSC. Draw and explain different types of Dividers, Liner, Pad and Support Block available in corrugated boxes.	**07**
	(b)	Explain flexographic printing and rotogravure printing with diagram.	**07**
Q.5	**(a)**	Explain scrap-less thermoforming process with neat diagram along with its advantages and applications.	**07**
	(b)	Explain Dart Impact testing of plastic packaging film with neat diagram.	**07**
		OR	
Q.5	**(a)**	Explain in details co-efficient of friction of plastics films used in packaging.	**07**
	(b)	Explain in details the Life cycle assessment of plastics films used in packaging.	**07**

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