Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – VI (NEW).EXAMINATION – WINTER 2016

Subject Code: 2162308 **Date: 25/10/2016**

Subject Name: Advance Plastics Processing

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		**Short Questions**	**14**
	1	The process by which thick PVC sheets for flooring are manufactured is called _____.	
	2	Define foamed or cellular plastics.	
	3	What is a parison?	
	4	_____ is the widely used process to make storage tanks and hollow toys.	
	5	List the raw materials used in rotational molding process.	
	6	What is adhesive bonding?	
	7	_____ and _____ are the raw materials used in RIM process.	
	8	Stretched blow molded bottles have excellent barrier properties (True or False).	
	9	List any two most commonly used methods of surface treatment of plastics.	
	10	What is syntactic foam?	
	11	List any two methods of printing on plastics.	
	12	What is the function of a blowing agent.	
	13	List various machining techniques for plastics.	
	14	Define structural foam.	
Q.2	**(a)**	State points of difference between open celled and closed cell foam.	**03**
	(b)	List the advantages of rotational molding	**04**
	(c)	Explain the process steps of Reaction Injection molding technique.	**07**
		OR	
	(c)	Explain the general production methods for manufacturing foamed plastics.	**07**
Q.3	**(a)**	List the advantages and disadvantages of RIM process.	**03**
	(b)	Differentiate between extrusion blow molding and injection blow molding techniques.	**04**
	(c)	With a neat sketch explain the calendaring process.	**07**
		OR	
Q.3	**(a)**	List the advantages and disadvantages of structural foam.	**03**
	(b)	List the various finishing techniques and explain any one.	**04**
	(c)	Explain the various types of calendar rolls arrangements	**07**
Q.4	**(a)**	Write a short note on silicon foam.	**03**
	(b)	Explain parison programming for parison wall thickness control	**04**

	(c)	Explain the types of machinery used in rotomolding	**07**
		OR	
Q.4	**(a)**	Explain briefly about casting process.	**03**
	(b)	Explain the steps in rotational molding process.	**04**
	(c)	Describe the low pressure structural foam molding process with a neat sketch.	**07**
Q.5	**(a)**	Explain any one heating system for calendar rolls.	**03**
	(b)	With a neat sketch explain the gravure printing process.	**04**
	(c)	Explain the process steps of injection stretch blow molding technique.	**07**
		OR	
Q.5	**(a)**	Explain in mold decoration technique for plastics.	**03**
	(b)	With a neat sketch explain the encapsulation process.	**04**
	(c)	Explain the vacuum metalizing process with a neat sketch	**07**

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