Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. Sem. – II[nd] - Examination – June/July- 2011

Subject code: 1722404

Subject Name: Secondary Plastics Processing Techniques

Date:01/07/2011 **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)**	Discuss in details about the types of calendar rolls, employed in calendaring process with their advantages and disadvantages.	**07**
	(b)	With neat sketches, Explain the following forming process and their merits & demerits 1. Pressure Forming 2. Plug assisted forming 3. Matched die forming	**07**
Q.2	**(a)**	Describe in detail about the filament winding process, Explain the advantages and disadvantages of FRP	**07**
	(b)	Explain about the Continuous high pressure laminating process with a neat diagram and their applications	**07**
		OR	
	(b)	With a neat sketch explain the low pressure structural foam molding process	**07**
Q.3	**(a)**	Explain about the vacuum bag and pressure bag moulding of FRP and explain the difference between them.	**07**
	(b)	Compare and contrast between mechanical foaming and chemical foaming proces	**07**
		OR	
Q.3	**(a)**	Explain the RIM Extrusion Foaming with a neat sketch and explain their merits and demerits	**07**
	(b)	Discuss in detail about the types of moulds that are used in thermoforming process	**07**
Q.4	**(a)**	Discuss in detail about any 2 types of welding of thermoplastics.	**07**
	(b)	Explain in detail about the following mechanical fasteners 1. Internal Hinges, 2. Snap Fitting	**07**
		OR	
Q.4	**(a)**	Explain the types of printing with neat sketch	**07**
	(b)	With a neat sketch, discuss in detail about the vacuum metallising	**07**
Q.5	**(a)**	Describe the process of Roto-moulding with a neat sketch and explain their merits and demerits	**07**
	(b)	Explain about the fluidized bed coating process and their advantages and disadvantages	**07**
		OR	
Q.5	**(a)**	Explain the dip casting process and its application	**07**
	(b)	Discuss in detail about the solvent cementing process	**07**

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