## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-IV (OLD) - EXAMINATION – SUMMER 2017			
Subject Code: 142301 Date: 01/06/2017			
Su Tii Ing	Subject Name: Basic Plastics Processing And Thermal Engineering Time: 10:30 AM to 01:00 PM Total Marks: 7 Instructions:		
1115	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What is plastic processing? Classify the processing methods and what are the factors depends on the selection of process for producing a specific product	07
	<b>(b)</b>	What is compression moulding? Explain the process with neat sketch along with advantages and disadvantages.	07
Q.2	(a) (b)	Explain Injection Blow Molding Process in detail along with its advantages Classify the types of molds used in compression moulding and explain any two in detail.	07 07
	(b)	<b>OR</b> Give the principle of Pot Transfer Molding. Provide the Difference between Pot & Plunger Transfer Moulding.	07
Q.3	(a) (b)	Give comparisons between compression and transfer molding process in detail. List the types of the Forming process. Explain Drape forming process with neat sketch	07 07
		OR	
Q.3	(a) (b)	Differentiate: Injection Blow Molding & Extrusion Blow Molding Explain Material characteristics required for the Thermoforming Process.	07 07
Q.4	<b>(a)</b>	What is Bulk Factor? What is Preforms & explain with Advantages & Disadvantages	07
	<b>(b)</b>	Describe shell & tube type heat exchangers with neat sketch along with its advantages and limitations	07
0.4	$(\mathbf{a})$	<b>UK</b> Explain the free forming metched die moulding & program forming	07
Q.4	(a) (b)	Give advantages and disadvantages of transfer molding process	07 07
Q.5	<b>(a)</b>	Explain the fourier's law for conduction and give formula for thermal conductance and resistance	07
	<b>(b)</b>	Explain Stretch Blow molding process with neat sketch OR	07
Q.5	<b>(a)</b>	Define: Conduction, Convection & Thermal Radiation. Explain Fourier's Law of Heat Transfer.	07
	<b>(b</b> )	Explain about Parison programming in detail.	07

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