Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV • EXAMINATION – WINTER 2013

Subject Code: 142301 **Date: 19-12-2013**

Subject Name: Basic Plastics Processing and Thermal Engineering

Time: 02:30 pm to 05:00 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)**	Define the term Plastic Processing. List out the various methods used for processing of Thermoplastic and Thermoset materials.	**07**
	(b)	What are all the selection criteria for method of processing?	**07**
Q.2	**(a)**	Write down the principle and working procedure of Compression moulding process with neat diagram.	**07**
	(b)	List out the types of molds used for compression molding. Explain the molds with neat sketch.	**07**
		OR	
	(b)	Write down any seven Causes, Faults and remedies of Compression moulding process	**07**
Q.3	**(a)**	Define Transfer molding and list out the types of process of transfer molding with neat diagram.	**07**
	(b)	Differentiate Compression molding and Transfer molding.	**07**
		OR	
Q.3	**(a)**	List the types of Mold used for Transfer moulding. Explain any one with neat sketch.	**07**
	(b)	Write down the advantages, disadvantages and applications of Transfer moulding.	**07**
Q.4	**(a)**	Define Thermoforming. List advantages and disadvantages of Thermoforming. List the basic process steps of it.	**07**
	(b)	List and Explain in the Material characteristics required for Therforming.	**07**
		OR	
Q.4	**(a)**	List out the types of Thermoforming process. Explain any four types of Thermoforming process.	**07**
	(b)	What are all the main difference between Thermoforming and Injection molding process?	**07**
Q.5	**(a)**	Define Blow Molding. Explain Material characteristics requires for Blow Molding Process. List the basic Process of Blow molding with neat sketch.	**07**
	(b)	Write down the Difference Between Injection Blow Molding and Extrusion Blow Molding.	**07**
		OR	
Q.5	**(a)**	Explain Shell and Tube heat Exchanger.	**07**
	(b)	List the modes of Heat Transfer. Explain any two in brief.	**07**

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