

**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 Thermoforming. **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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