

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER 2013****Subject Code: 152304****Date: 23-05-2013****Subject Name: Plastic processing and Machinery****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) What is Injection moulding process? Discuss process steps, advantages and disadvantages of the process. **07**

(b) What are advantages and disadvantages of transfer moulding process? **07**

Q.2 (a) Discuss Extrusion blow moulding v/s. injection blow moulding in detail **07**

(b) Discuss : Snap back forming ; Drap forming **07**

OR

(b) What is Compression moulding? Discuss process steps and applications. **07**

Q.3 (a) Define : Blow moulding; Parison; compression moulding; calendaring ; calendar; semi positive mould; bulk factor **07**

(b) Fill in the blanks: **07**

1. _____plastic material is used for making electric contactors.

2. For manufacture of products with inserts, _____process is used.

3. Oil Jerry cans are made by _____process

4. _____plastic materials can be used on thermoforming machines

5. _____mould gives least flash in compression moulding

6. Cycle time can be reduced in injection moulding by _____

7. Application of reaction injection moulding is _____

OR

Q.3 (a) Discuss various types of moulds used for compression moulding process. **07**

(b) What is Calendaring process? Discuss with a neat line diagram. **07**

Q.4 (a) Discuss Vacuum assist thermoforming process **07**

(b) Discuss reaction injection moulding process. **07**

OR

Q.4 (a) What is parison programming? Where is it used? **07**

Q.4 (b) Discuss the plug assist thermoforming process with applications **07**

Q.5 (a) Discuss various types of Calenders along with applications of each type **07**

(b) Discuss selection criteria for materials used for Thermoforming process **07**

OR

Q.5 (a) Discuss various types of heaters used for compression moulding **07**

(b) Discuss trouble shooting in injection moulding process **07**
