Seat No.:	Enrolment No.

## **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 07 and disadvantages of the process. **(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; Drape forming 07 **(b)** What is Compression moulding? Discuss process steps and applications. 07 Q.3 (a) Define: Blow moulding; Parison; compression moulding; breathing; 07 calendar; semi positive mould; bulk factor **(b)** Fill in the blanks: 07 plastic material is used for making electric 1. \_\_\_\_ contactors. 2. For manufacture of products with inserts, \_\_\_\_\_process is 3. Oil Jerry cans are made by \_\_\_\_\_ \_plastic materials can be used on thermoforming machines \_mould gives least flash in compression moulding 5. 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** What is Calendering process? Discuss with a neat line diagram. 07 **Q.4** Discuss Vaccuum assist thermoforming process 07 Discuss reaction injection moulding process. 07 OR What is parison programming? Where is it used? 07 0.4 (a) Discuss the plug assist thermoforming process with applications **Q.4** 07 Discuss various types of Calenders along with applications of each type **Q.5** 07 Discuss selection criteria for materials used for Thermoforming process 07 **Q.5** Discuss various types of heaters used for compression moulding 07 **(b)** Discuss trouble shooting in injection moulding process 07

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