

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-Vth Examination December 2010

Subject code: 152304

Subject Name: Plastic Processing & Machinery

Date: 21 /12 /2010

Time: 03.00 pm - 05.30 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) Explain Plug assist Thermoforming process in detail with neat sketch. 07
(b) Describe Reaction Injection molding (RIM) process. 07
- Q.2** (a) Draw general purpose screw & explain its terminology. 07
(b) Describe Injection molding process along with advantages. 07
- OR**
- (b) Define:- i) Cavity ii) Plastic memory iii) Mold iv) Flash 07
v) Core vi) Gate vii) Runner
- Q.3** (a) Give principle of Thermoforming process & Explain its material & process variables. 07
(b) Explain any one Fluid forming process also give advantages & disadvantages of cold forming process. 07
- OR**
- Q.3** (a) What are the purpose of preconditioning & explain methods of preheating the thermoset molding. 07
(b) Give principle of Compression molding process & describe various factors needs to be considered. 07
- Q.4** (a) Explain advantages & disadvantages of Transfer molding process. 07
(b) Explain basic extrusion Blow molding process with neat sketch. 07
- OR**
- Q.4** (a) Give various Troubleshooting of Thermoforming process. 07
(b) Give various Troubleshooting of Blow Molding process. 07
- Q.5** (a) What is bulk factor? Explain preforms with its advantages & disadvantages. 07
(b) Explain with neat sketch general screw tip & ball type screw tip Assemblies. 07
- OR**
- Q.5** (a) Describe Plunger type Transfer Molding with neat sketch & explain important consideration of Transfer mold design for Gate, Runner & Vents. 07
(b) Explain Injection Blow molding process with advantages & Disadvantages. 07
