

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING - SEMESTER-IV • EXAMINATION – WINTER - 2016

Subject Code: 3342301**Date: 19- 11-2016****Subject Name: Blow Rotational and Thermoforming Process****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.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. **14**
1. List the types of blow molding process.
 2. Give the name of plastic materials used in blow molding process.
 3. Draw convergent type die and label its parts.
 4. Write various types of parison blowing system.
 5. Give any one problem and its causes associated with blow molding process.
 6. List molding material requirements for rotational molding process.
 7. Give the name of machines widely used in rotational molding technique.
 8. How rotational molding process is different than blow molding process?
 9. List various thermoforming processes.
 10. Name some machines used in thermoforming process.
- Q.2** (a) Compare injection blow molding process and extrusion blow molding process. **03**
- OR
- (a) Write the applications of blow molded products. **03**
- (b) Explain material selection criteria for blow molding process. **04**
- OR
- (b) Explain divergent type of die used in blow molding process. **04**
- (c) Draw parison programming die head and label all parts. **07**
- OR
- (c) Discuss process parameters for blow molding technique. **07**
- Q.3** (a) Explain advantages and disadvantages of rotational molding process. **07**
- OR
- (a) Write short note: Fixed arm carousel type rotational molding machine. **07**
- (b) Discuss design features of rotational mold. **07**
- OR
- (b) Compare blow molding process and rotational molding process. **07**
- Q.4** (a) Write applications of thermoformed product in various fields. **03**
- OR
- (a) List the criteria of material selection for thermoforming process. **03**
- (b) Explain in brief about single stage sheet fed machine. **04**
- OR
- (b) Give the process variables for thermoforming process and explain any one. **04**
- (c) Explain different stages of thermoforming process. **07**
- Q.5** (a) List and explain process steps for rotational molding technique. **07**
- (b) Describe extrusion blow molding process with the help of figure. **07**
