

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEMESTER - V EXAMINATION – SUMMER • 2014

Subject Code: 153405**Date: 24-06-2014****Subject Name: Plastic Manufacturing Technology****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 are the different types of polymer processing techniques? Give the effect of polymer properties on the processing behavior? **07**
(b) What should be the selection criteria for choosing a particular processing method? **07**
- Q.2** (a) What are the common moulding defects? Give their causes & remedies? **07**
(b) What do you mean by cycle time? Write about its effect on moulding quality? **07**
- OR**
- (b) Write about thermoset injection moulding process in detail? Give the merits and demerits of the process? **07**
- Q.3** (a) Explain compression moulding process in detail with a neat sketch? Give the influence of temperature and pressure on quality of the product? **07**
(b) Write about the merits & demerits of compression moulding process? **07**
- OR**
- Q.3** (a) What is the principle of transfer moulding? Give its merits over other processes? **07**
(b) What is cold forming sintering and ram extrusion? How can we optimize the process parameters? **07**
- Q.4** (a) What is L/D ratio and compression ratio? Give the factors governing back pressure? **07**
(b) Explain the principle of Extrusion? Write about the classification of extruders? **07**
- OR**
- Q.4** (a) Write about twin screw extruders in detail and give its merits and demerits? **07**
(b) What is a mono filament? Write about the dies used for producing products such as cast film? **07**
- Q.5** (a) What is extrusion blow moulding and stretch blow moulding? Write about the recent advances in blow moulding? **07**
(b) What is a multi-layer blow moulding? Write about parison programming **07**
- OR**
- Q.5** (a) What is drape forming? Give the advantages of pressure forming over vacuum forming? **07**
(b) Write about the continuous forming methods and give their applications? **07**
