

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Subject code: 2712402**Date: 09-01-2015****Subject Name: Plastics Processing Technology****Time: 02:30 pm - 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.

- Q.1** (a) Draw Line diagram of Reciprocating Screw type Injection Molding machine & Label its various parts. List & Explain process steps in brief for Injection molding process. **07**
- (b) Describe Compression moulding process. What are process variables influencing compression moulding process? **07**
- Q.2** (a) Short note on: short shot, plasticising capacity **07**
- (b) Explain different types of transfer moulding **07**
- OR**
- (b) Explain Cavity Pressure Profile in Injection Moulding process **07**
- Q.3** (a) Explain about factors to be considered while selecting the plastics processing techniques **07**
- (b) Draw general purpose screw & explain its terminology **07**
- OR**
- Q.3** (a) Give comparison between Single screw extruder (SSE) and Twin Screw extruder (TSE). **07**
- (b) Define Bulk factor. Explain importance of Preforms in compression moulding process **07**
- Q.4** (a) Draw a line diagram of typical Blown film extrusion plant indicating the part details **07**
- (b) Explain the types of Twin Screw extruder & its relative merits & demerits **07**
- OR**
- Q.4** (a) Explain Extrusion stretch Blow moulding with neat diagram **07**
- (b) Explain the different types of Extrusion dies used for products: Film, Sheet & Pipe with the help of line sketch. **07**
- Q.5** (a) What precautions to be taken while processing of PVC in an extruder? How does the Screw for PVC differ from other thermoplastics materials. **07**
- (b) Give difference between Compression and transfer moulding **07**
- OR**
- Q.5** (a) Explain any five defects, causes and remedies of injection molded product **07**
- (b) What is the significance of cup flow test & spiral flow tests for thermosetting material? **07**
