

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**ME - SEMESTER-I(New course)• EXAMINATION – WINTER- 2015**

**Subject Code: 2712402****Date: 02/01/2016****Subject Name: PLASTICS PROCESSING TECHNOLOGY****Time: 2:30 pm to 5:00 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) Explain about factors to be considered while selecting the plastics processing techniques **07**
- (b) Explain the effect of polymer properties on processing parameters of Thermoplastics in injection moulding. **07**

- Q.2** (a) Describe Compression moulding process. What are process variables influencing compression moulding process? **07**
- (b) 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**

**OR**

- (b) Short note on: short shot, plasticising capacity, weldline, warpage, flash. **07**

- Q.3** (a) Explain different types of transfer moulding **07**
- (b) Explain L/D ratio & its significance to the Extrusion process **07**

**OR**

- Q.3** (a) Give comparison between Single screw extruder (SSE) and Twin Screw extruder (TSE). **07**
- (b) Write Short notes -(i) Breaker Plate and screen pack (ii) Melt fracture. **07**

- Q.4** (a) Explain Extrusion stretch Blow moulding with neat diagram **07**
- (b) Explain Monofilament extrusion process with neat sketch **07**

**OR**

- Q.4** (a) Write short notes on Parison programming **07**
- Q.4** (b) Explain the types of Twin Screw extruder & its relative merits & demerits **07**

- Q.5** (a) Explain the different types of Extrusion dies used for products: Film, Sheet & Pipe with the help of line sketch. **07**

- (b) Discuss various types of moulds used for compression moulding 07

**OR**

- Q.5** (a) Draw a line diagram of typical Blown film extrusion plant indicating the part details. 07

- (b) Draw a pie chart of Cycle time and explain in detail. 07

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