

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

Subject code: 712402N**Date: 17-06-2014****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) Describe Compression moulding process. What are process variables influencing compression moulding process? **07**
- (b) Explain L/D ratio & its significance to the Extrusion process. **07**
- Q.2** (a) Give comparison between Single screw extruder (SSE) and Twin Screw extruder (TSE). **07**
- (b) Explain process variables of Injection moulding process & its effect on moulding quality **07**
- OR**
- (b) What is the significance of cup flow test & spiral flow tests for thermosetting material? **07**
- Q.3** (a) Explain different types of transfer moulding **07**
- (b) Draw a line diagram of typical Blown film extrusion plant indicating the part details **07**
- OR**
- Q.3** (a) Write Short notes - **07**
- (i) Breaker Plate and screen pack
- (ii) Melt fracture
- (b) Compare manufacturing of 50 ml HDPE pharma bottles by Extrusion Blow Moulding process & Injection Blow Moulding process. **07**
- Q.4** (a) Write short notes on Parison programming **07**
- (b) Compare Hydraulic clamping system with Toggle clamping system **07**
- OR**
- Q.4** (a) Differentiate thermoplastic injection moulding & thermoset injection moulding. **07**
- (b) What is co extrusion? Explain the advantages of multilayer film. **07**
- Q.5** (a) Explain briefly about manufacturing of PVC Pipes **07**
- (b) Discuss Injection moulding machine screw with neat sketch. **07**
- OR**
- Q.5** (a) Describe Trouble shooting in Blow moulding process **07**
- (b) Explain significance of preheating of material for compression moulding process. **07**
