

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

Subject Code: 152301**Date: 11-06-2014****Subject Name: Injection Moulding 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 is single stage plunger machine? Explain it. **07**
 (b) With the help of graph explain Injection cycle. **07**
- Q.2** (a) Explain Gas assisted Injection molding machine in detail. **07**
 (b) Why cylinders breakdown? Explain heating of cylinder and screw construction and maintenance. **07**
- OR**
- (b) Explain advantages and disadvantages of Injection Molding Process. **07**
- Q.3** (a) How can you align the nozzle and control the temperature of nozzle. **07**
 (b) Explain Standard nozzle and Needle type shut off nozzle. **07**
- OR**
- Q.3** (a) What is nitriding? Explain nitriding process on injection molding machine part. **07**
 (b) Explain injection molding machine start up and close up procedure in detail. **07**
- Q.4** (a) Draw the screw and explain its each terminology. **07**
 (b) How melting of plastic occurs in screw? Explain in detail. **07**
- OR**
- Q.4** (a) What is cavity pressure profile? Explain it in detail. **07**
 (b) What safety consideration must be follow in injection molding process? **07**
- Q.5** (a) Explain Screw drive in brief and compare hydraulic and electrical drives. **07**
 (b) What is clamping system? Provide types of it? Compare both hydraulic and toggle system. **07**
- OR**
- Q.5** (a) Define clamping system and explain Double-toggle clamping system. **07**
 (b) List the types of clamping system and explain Rapid type clamping system. **07**
