

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-V • EXAMINATION – WINTER 2013

Subject Code: 152301**Date: 27-11-2013****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) With the help of graph explain Injection cycle. **07**
 (b) What is nozzle? Explain Standard nozzle & Needle type shut off nozzle. **07**
- Q.2** (a) What is clamping system? Provide types of it? Compare both hydraulic & toggle system. **07**
 (b) Explain safety steps in injection molding process. **07**
- OR**
- (b) What is two stage plunger machine? Explain it. **07**
- Q.3** (a) Define Followings:- **07**
- | | |
|----------------------|-------------------|
| 1. Sprue | 2. Clamping Force |
| 3. Open-loop Control | 4. Co-Injection |
| 5. Cooling time | 6. Masterbatch |
| 7. Suck-back | |
- (b) What is RIM process? Explain in detail. **07**
- OR**
- Q.3** (a) How you start up and close injection molding process explain it in detail. **07**
 (b) What is Gas assisted injection molding machine? Explain it. **07**
- Q.4** (a) Explain pvT Diagram. **07**
 (b) Explain nitriding process done on different injection molding machine part. **07**
- OR**
- Q.4** (a) Explain cavity pressure profile. **07**
 (b) What is screw? Draw and explain its each terminology. **07**
- Q.5** (a) Provide types of clamping system. Explain Lock & Block clamping system. **07**
 (b) What is clamping system? Explain Double-toggle clamping system. **07**
- OR**
- Q.5** (a) Explain following (A) Ball type tip, (B) Ring Type tip **07**
 (b) Explain melting of plastic on screw. **07**
