

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER 2013****Subject Code: 152301****Date: 14-05-2013****Subject Name: Injection Moulding Technologies****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) Draw the screw and explain its each terminology. **07**
 (b) What is screw output? Explain. **07**
- Q.2** (a) 1. Cavity 2. Cooling time **07**
 3. Flash 4. Master-batch
 5. Toggle 6. Tonnage
 7. Insert Molding
 (b) What is single stage plunger machine? Explain it in detail. **07**
- OR**
- (b) Explain merits and demerits of injection molding process. **07**
- Q.3** (a) Explain Reciprocating Injection molding process with neat sketch. **07**
 (b) What is nozzle? Explain Standard nozzle & Nylon nozzle. **07**
- OR**
- Q.3** (a) Explain melting of plastic on screw. **07**
 (b) Explain following (A) Ball type tip, (B) Ring Type tip **07**
- Q.4** (a) Provide types of clamping system. Explain Mono-toggle clamping system. **07**
 (b) Explain the nozzle alignment & controlling the temperature of nozzle. **07**
- OR**
- Q.4** (a) Provide types of clamping system. Explain Hydraulic clamping system. **07**
Q.4 (b) What safety consideration must be followed in injection molding process? **07**
- Q.5** (a) Explain machine start up and close up procedure in injection molding machine. **07**
 (b) Explain nitriding process done on different injection molding machine part. **07**
- OR**
- Q.5** (a) Explain close loop & open loop system. **07**
 (b) Explain basic principle of screw conveying. **07**
