

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – III • EXAMINATION – WINTER 2015

Subject Code: 332305**Date: 11 -12 -2015****Subject Name: INJECTION MOULDING TECHNOLOGY****Time: 10:30 AM TO 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.
4. Each question carry equal marks (14 marks)

- Q.1** (a) Compare hydraulic and toggle clamping mechanisms. **07**
(b) Explain methods of screw and barrel heating. **07**
- Q.2** (a) Draw line diagram of an injection molding machine and label different part. **07**
(b) List various materials use for injection molding process. Which are the factors to be considered for material selection? **07**
- OR
- (b) Write down various applications of injection molding in construction and electrical applications. **07**
- Q.3** (a) Explain injection molding process steps. **07**
(b) List out various post molding operations and explain any one with neat sketch. **07**
- OR
- Q.3** (a) List various injection molding process variables and explain their effect on moldings. **07**
(b) Explain maintenance procedure of an injection molding machine. **07**
- Q.4** (a) Explain working of cooling tower with neat sketch. **07**
(b) Explain the working of heat exchanger with neat sketch. **07**
- OR
- Q.4** (a) State various types of hopper loader. Explain vacuum feed hopper loader. **07**
(b) Explain start-up and shut-down procedure of an injection machine. **07**
- Q.5** (a) Explain Gas Injection molding process and state advantages of it. **07**
(b) Explain metal injection molding process and state applications of it. **07**
- OR
- Q.5** (a) List various blowing agents. Explain foam molding process steps. **07**
(b) Explain various steps involved in Reaction Injection Molding process. **07**
