

Seat No.: \_\_\_\_\_

Enrolment No.: \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER – III EXAMINATION – SUMMER 2016**

**Subject Code: 332305**

**Date: 27-05 -2016**

**Subject Name: Injection Moulding Technology**

**Time:02:30 PM TO 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.
4. Each question carry equal marks (14 marks)

- Q.1** (a) Compare hydraulic and toggle clamping mechanism. **07**  
(b) What is the function of reciprocating screw? Explain constructional features of general purpose screw. **07**
- Q.2** (a) Draw line diagram of an injection molding machine and label different parts. **07**  
(b) State various terms used for specifications of injection machine and explain. **07**
- OR
- (b) Explain heating and cooling mechanism of barrel. **07**
- Q.3** (a) What are the properties required for injection molding materials? **07**  
(b) Explain complete injection molding cycle. **07**
- OR
- Q.3** (a) State applications of injection molding in automobile and construction. **07**  
(b) State and explain various process variables of an injection molding process. **07**
- Q.4** (a) Explain various post molding operations for injection molded products. **07**  
(b) Explain working principle of heat exchanger with neat sketch. **07**
- OR
- Q.4** (a) State advantages and disadvantages of injection molding. **07**  
(b) State types of hopper loader. Explain any one with neat sketch. **07**
- Q.5** (a) Explain various steps of Reaction Injection Molding process. **07**  
(b) Explain sandwich injection molding process and state its advantages. **07**
- OR
- Q.5** (a) Explain the principle of Gas Injection Molding process. State any five applications of it. **07**  
(b) Explain metal filled injection molding and state applications of it. **07**

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