Seat No.:	Enrolment No
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **BE - SEMESTER-V EXAMINATION - WINTER 2015**

	•	t Code: 152301 Date:15/12/2015	
Ti	-	t Name: Injection Molding Technologies 10:30am to 1:00pm Total Marks: 70 ons:	
		<ul><li>Attempt all questions.</li><li>Make suitable assumptions wherever necessary.</li></ul>	
Q.1	(a) (b)	Explain start up and shut down procedure of injection molding machine. List any seven defects found during process of Injection Molding. Give causes and remedies of these defects.	07 07
Q.2	(a) (b)	Explain reciprocating screw type Injection Molding machine with neat sketch. Explain gas assisted injection molding with neat diagram	07 07
	<b>(b)</b>	OR Explain basic principle of screw conveying.	07
Q.3	(a) (b)	What is cavity pressure profile? Explain it in detail. What is nozzle? Explain Needle type shut off nozzle & Nylon nozzle.	07 07
		OR	
Q.3	(a) (b)	Explain close loop & open loop system.  With the help of graph explain Injection cycle.	07 07
Q.4	(a) (b)	Explain advantages and disadvantages of Injection Molding Process.  Define clamping system and explain Double-toggle clamping system.	07 07
		OR	
Q.4	(a) (b)	How melting of plastic occurs in screw? Explain in detail.  Differentiate between Hydraulic and Toggle clamping systems	07 07
Q.5	(a) (b)	Compare between Hydraulic & Electrical drives  Define: (i) Shot capacity (ii) Back pressure(iii) Suck back (iv) Tonnage  (v) Plasticizing capacity (vi) Drooling(vii) Co-injection  OR	07 07
Q.5	(a) (b)	Explain different auxiliary machinery used in Injection Molding.  Compare: Injection molding of Thermoplastic with Injection molding of Thermosets.	07 07

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