Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER- I • EXAMINATION - WINTER 2014

Subject Code: 2712408 Subject Name: Plastics Mould & Product Design Simul			Date:06/01/ 2015	
Tin	•	30 to 5:00 PM Total Marks:	70	
11150		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	Classify injection moulding machines and explain in detail. Explain the product design guidelines for moulded holes and moulded threads.	07 07	
Q.2	(a) (b)	How to determine (i) shot weight (ii) injection pressure (iii) clamping force. Explain double ejection and delayed ejection. OR	07 07	
	(b)	How will you calculate the cooling time? Explain cooling through capillary tubes and heat rods.	07	
Q.3	(a)	What is gate balancing? Explain the application of gates to various products and materials.	07	
	(b)	Explain about moulding undercuts. OR	07	
Q.3	(a) (b)	Discuss about surface defects of injection moulded products. What are the applications, advantages and disadvantages of compression and transfer moulding?	07 07	
Q.4	(a) (b)	Explain plunger transfer and screw transfer moulding techniques. Discuss about structural considerations in plastics product design. OR	07 07	
Q.4	(a) (b)	How will you select material for plastics product? Write about machining and finishing of injection moulded parts.	07 07	
Q.5	(a) (b)	Explain various plastics product assembly methods. Write about insert moulding. OR	07 07	
Q.5	(a) (b)	Explain the role of FEA in plastics product and mould design. Explain any one liquid based rapid prototyping process.	07 07	
