Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER– I (New course)• REMEDIAL EXAMINATION – SUMMER 2015

Subject Code: 2712408 **Date:12/05/2015**

Subject Name: Plastics Mould & Product Design Simulations

Time: 10:30 am to 1:00 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)**	Explain mould design principles.	**07**
	(b)	Explain plastic product design principles.	**07**
Q.2	**(a)**	How will you select injection moulding machine for your product?	**07**
	(b)	Discuss the classification of injection moulds.	**07**
		OR	
	(b)	Explain the types of cooling with neat sketches.	**07**
Q.3	**(a)**	Discuss about mould construction and assembly.	**07**
	(b)	Discuss the types of loading chamber design for compression mould.	**07**
		OR	
Q.3	**(a)**	Explain dog leg cam and cam track actuation systems with neat sketches.	**07**
	(b)	Discuss the heat losses in compression mould.	**07**
Q.4	**(a)**	How will you select between compression and transfer moulding?	**07**
	(b)	Discuss the factors affecting shrinkage.	**07**
		OR	
Q.4	**(a)**	Discuss the modern approaches for product design.	**07**
	(b)	How will you determine gate size and location?	**07**
Q.5	**(a)**	Compare the materials for prototype injection moulds.	**07**
	(b)	How processing variables affecting product design? Explain.	**07**
		OR	
Q.5	**(a)**	Explain the role of CAD in plastics product and mould design.	**07**
	(b)	Explain stereolithography with neat sketch.	**07**

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