Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Sem-I Regular Examination January / February 2011

Subject code: 712403N

Subject Name: Plastic Mould & Product Design

Date: 02 /02 /2011 **Time: 02.30 pm – 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.**

Q.1	**(a)**	Write down the functions, types and standard sizes of guide pillar.	**07**
	(b)	How 3-D part is formed by using Rapid proto typing process of Stereo lithography techniques? Explain with neat sketch.	**07**
Q.2	**(a)**	Explain in brief about D-shaped ejector pin and Sleeve ejection with neat sketch.	**07**
	(b)	Write the circuits recommended for cooling integer cavity plate. Explain any two cooling system with neat sketch.	**07**
		OR	
	(b)	Write the types of Parting surface. Explain any two parting surfaces with neat sketch.	**07**
Q.3	**(a)**	Write short notes about Wall thickness and write any four suggested wall thickness for thermoplastic material.	**07**
	(b)	Write short notes about Undercuts and through holes with neat sketch.	**07**
		OR	
Q.3	**(a)**	Explain plastic product design features of Taper and Draft with neat sketch.	**07**
	(b)	Explain plastic product design features of Radii and fillets with neat sketch.	**07**
Q.4	**(a)**	Distinguish between Two plate and three plate mould with neat sketch.	**07**
	(b)	Explain the functions of Dog leg cam actuation system with neat sketch.	**07**
		OR	
Q.4	**(a)**	Define Blow ratio, pinch off design and mould venting.	**07**
	(b)	Write the types of extrusion blow process. Explain various steps involved in extrusion blow moulding process and draw a typical blow mould for a container.	**07**
Q.5	**(a)**	Write short notes about Design of Pot and plunger mould.	**07**
	(b)	Draw a typical plunger type transfer mould and its components.	**07**
		OR	
Q.5	**(a)**	Draw a typical Semi positive compression mould and its components.	**07**
	(b)	How do you decide technological determination of cavities and loading chamber depth of design a compression mould?	**07**

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