Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER–III • EXAMINATION – SUMMER • 2014

Subject Code: 332303 Date: 19-06-2014

Subject Name: Design Fundamentals of Moulds

Time: 10:30 am - 01:00 pm Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **English version is considered to be Authentic.**

Q.1		Design and draw sectional elevation and plan view of hand injection mold for any suitable product. Assume suitable dimensions.	**14**
Q.2	(a)	List any seven elements of machine injection mold. Give function of each element.	**07**
	(b)	Define parting surface. Give classification of various types of parting surfaces used in injection moulds. Explain non-flat parting surface with neat sketch.	**07**
		OR	
	(b)	Give various types of bolsters and explain any two types in detail with neat sketches.	**07**
Q.3	(a)	Discuss about sprue puller with sketch.	**07**
	(b)	Explain ejector assembly with neat sketch.	**07**
		OR	
Q.3	(a)	List and sketch various ejector elements.	**07**
	(b)	Explain balancing of runner with neat sketch.	**07**
Q.4	(a)	Define runner efficiency. Sketch various runner profiles showing their runner efficiency.	**07**
	(b)	Explain positioning of gate with neat sketch.	**07**
		OR	
Q. 4	(a)	Explain any one: (1) Sprue gate (2) Subsurface gate	**07**
	(b)	Explain stripper plate ejection with neat sketch.	**07**
Q.5	(a)	List various methods for cooling of deep or long core inserts and explain any one with neat sketch.	**07**
	(b)	Explain integer core plate cooling with at least one example by neat sketch.	**07**
		OR	
Q.5	(a)	Explain sleeve ejection technique with neat sketch.	**07**
	(b)	Describe cooling of circular cavity inserts by one method with neat sketch.	**07**

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