Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING – SEMESTER – III • EXAMINATION – SUMMER- 2017

Subject Code: 3332301 **Date: 29-04-2017**

Subject Name: Basic Mould Design

Time: 02:30 PM TO 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.**
4. **Use of programmable & Communication aids are strictly prohibited.**
5. **Use of only simple calculator is permitted in Mathematics.**
6. **English version is authentic.**

Q.1		Answer any seven out of ten.	**14**
	1.	Define core and cavity.	
	2.	Define runner and sprue.	
	3.	Function of guide pin and guide bush.	
	4.	What is ejector grid?	
	5.	List out various ejection techniques.	
	6.	What is feed system?	
	7.	List out various runner used in mould design.	
	8.	Give material construction of any two elements of two plate machine Injection mold.	
	9.	Write down function of retaining plate.	
	10.	Define circuit.	
Q.2	(a)	List out various bolster plates and explain any one.	**03**
		OR	
	(a)	Write short note on guide bush.	**03**
	(b)	Explain any two types of parting surface in brief.	**03**
		OR	
	(b)	Draw two types of angled parting surface.	**03**
	(c)	Write short note on integer cavity plates.	**04**
		OR	
	(c)	Explain about inserts and local inserts.	**04**
	(d)	What is leader pin? Explain in brief.	**04**
		OR	
	(d)	Draw 4 and 8 impression runner layout.	**04**
Q.3	(a)	Define gate? List out gate used in mould design.	**03**
		OR	
	(a)	Draw and explain sprue gate.	**03**
	(b)	Explain about gate location.	**03**
		OR	
	(b)	Write short note on sleeve ejection.	**03**
	(c)	Explain runner balancing system.	**04**
		OR	
	(c)	Explain sprue puller in brief.	**04**
	(d)	List out various ejector elements and sketch any one.	**04**

OR

	(d)	Draw and explain film gate.	**04**
Q.4	(a)	Explain U type cooling system used for integer cavity plate cooling.	**03**

OR

	(a)	Explain rectangular type cooling system used for integer cavity plate cooling.	**03**
	(b)	Draw angled holed circuit integer type core cooling.	**04**

OR

	(b)	Explain importance of cooling in mould design.	**04**
	(c)	Draw and explain in detail of baffle cooling.	**07**
Q.5	(a)	Draw plan and sectional elevation of hand injection mould for product of your choice. Give product drawing.	**14**

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