Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING – SEMESTER –III • EXAMINATION – WINTER-2015

Subject Code:3332301 **Date: 17/ 12/2015**

Subject Name: BASIC MOULD DESIGN

Time: 10:30 AM TO 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. **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.	State functions of locating ring.	
	2.	Define venting and cooling.	
	3.	Sketch any one product with non flat parting surface.	
	4.	State types of guide pillar.	
	5.	State basic difference between integer plate and insert-bolster plate.	
	6.	Sketch any two types of sprue puller.	
	7.	State applications of ring gate and diaphragm gate.	
	8.	State factors affecting runner size.	
	9.	State function ejector assembly return system.	
	10.	State advantages of stripper plate ejection.	
Q.2	(a)	Sketch any one type of guide pin.	**03**
		OR	
	(a)	Sketch feed system and label different parts.	**03**
	(b)	Draw sectional elevation of hand injection mold for any product.	**07**
		OR	
	(b)	Draw sectional elevation of machine injection mold for any product.	**07**
	(c)	Explain the difference between flat and non flat parting surface with example.	**04**
		OR	
	(c)	Explain stepped and profiled parting surface.	**04**
Q.3	(a)	State functions of guide pin.	**03**
		OR	
	(a)	Sketch correct method of insert fitting.	**03**
	(b)	State and explain various types of bolsters.	**07**
		OR	
	(b)	Explain positioning of guide pin and guide pin size.	**07**
	(c)	Sketch various balanced runner layout for 6 and 8 cavity molds.	**04**
		OR	
	(c)	Sketch submarine and round edge gate.	**04**
Q.4	(a)	Explain positioning of gate with suitable examples.	**07**
		OR	
	(a)	Explain the procedure for selecting runner shape.	**07**

	(b)	State types of ejection methods and explain pin ejection with neat sketch.	**07**
Q.5	(a)	Sketch any one method of core insert cooling.	**04**
	(b)	Sketch any one method of cavity plate cooling.	**04**
	(c)	State the importance of cooling in mold design.	**03**
	(d)	Sketch stripper plate ejection assembly and label different parts.	**03**

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