Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING – SEMESTER – VII -EXAMINATION – WINTER 2015

Subject Code: 3372301 **Date: 19/12/2015**

Subject Name: Advance Plastic Processing Techniques

Time: 10:30 AM TO 01:00 AM **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.	Write any two advantaged of stretch blow molding over conventional blow molding.	
	2.	List various miscellaneous blow molding process	
	3.	List various barrier material used in co-extrusion.	
	4.	List various adhesive(bonding material) used in co extrusion	
	5.	Give name of various reinforcing material used in reinforced pipe.	
	6.	Define RIM	
	7.	Which gas is used in gas assisted injection molding process? Why?	
	8.	List various reinforcing material & coupling agents used in injection molding of reinforced thermoplastic	
	9.	Write names of materials and additives in RIM process	
	10.	List names of various vented screw extrusion.	
Q.2	(a)	List types of intermeshing twin screw design. Explain any one of them with neat sketch	**07**
		OR	
	(a)	Explain any one miscellaneous blow molding process with neat sketch.	**07**
	(b)	Explain manufacturing process of Nylon braided reinforced pipe with neat sketch.	**07**
		OR	
	(b)	Describe any one structural foam injection molding process with neat sketch.	**07**
Q.3	(a)	Explain merits of RIM process.	**07**
		OR	
	(a)	Explain advantages of Co-extrusion blown film.	**07**
	(b)	Write applications of heat shrink film.	**03**
		OR	
	(b)	List various steps for metal injection molding.	**03**
	(c)	Write features of RIM process.	**04**
		OR	
	(c)	Write advantages of heat shrink film.	**04**
Q.4	(a)	What are the purposes of vented screw extruder?	**03**
		OR	
	(a)	Write advantages of structural foam injection molding.	**03**

	(b)	Write injection molding machine requirements for injection molding of reinforced thermoplastic	**04**
		OR	
	(b)	Compare: Feed block die and Multi manifold die	**04**
	(c)	Explain RIM process with flow diagram	**07**
Q.5	(a)	Compare single screw extruder and twin screw extruder.	**07**
	(b)	Describe extrusion stretch blow molding with neat sketch	**07**

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