Se	eat No.: _	Enrolment No.	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
D	IPLOM	A ENGINEERING – SEMESTER – VII • EXAMINATION – WINTER- 201	15
\mathbf{S}^{1}	ubject (Code: 3372304 Date: 10-12-201	.5
\mathbf{S}^{1}	ubject I	Name: Designing of Plastic Product	
Time: 10:30 AM TO 1:00 PM Total Marks			' 0
	struction		
		empt all questions.	
		ke Suitable assumptions wherever necessary. ures to the right indicate full marks.	
		e of programmable & Communication aids are strictly prohibited.	
		e of only simple calculator is permitted in Mathematics.	
	6. Eng	glish version is authentic.	
Q.1		Answer any seven out of ten.	14
	1.	Give the definition of product design.	
	2.	Give two examples of product where plastic materials replacing metals.	
	3.	Define the check list for product design.	
	4. 5.	Draw figures of various holes. Define: Material selection	
	5. 6.	Name some transparent plastic materials.	
	7.	List the factors which affect process selection.	
	8.	Which are the processing techniques used for thermosetting materials?	
	9.	Give the name of plastic material and processing technique for disposable	
	10	cups.	
	10.	Name some plastic materials used for food packaging applications.	
Q.2	(a)	Explain the flow chart from concept to fabrication with respect to product	07
		design.	
	(a)	OR Explain in brief factors which affect product design.	07
	(a) (b)	Prepare ideal check list for plastic product design.	07
	(0)	OR	0.
	(b)	Describe in brief considerations for preliminary product design.	07
Q.3	(a)	Write short note on fillets and radii.	07
Q.C	(4)	OR	0.
	(a)	Explain "undercut" as a general design consideration for plastic product	07
		design.	
	(b)	Explain with the help of figure about taper and draft.	07
	(b)	OR Compare short term properties and long term properties of plastic material	07
	(0)	with respect to plastic product design.	07
0.4	(a)		0.5
Q.4	(a)	Categorize the thermoplastic material with the help of triangle illustration and explain in brief.	07
		OR	
	(a)	Describe the calendaring process with its advantages and limitations.	07
	(b)	Compare the rotational molding and blow molding process with respect to	07
		product shape, size, quality, quantity, cost etc.	
Q.5	(a)	Prepare the procedure for designing of plastic pipes used in chemical field.	07
-	(b)	Prepare the procedure for designing of camera lens.	07
