Seat No.:	Enrolment No

Subject code: 712402N

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

Date: 09-01-2013

_		Name: Plastics Processing Technology	Λ
		.30 pm – 05.00 pm Total Marks: 70	J
Instr			
		Attempt all questions.	
		Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Discuss- Injection moulding machine screw with neat sketch. Explain Transfer moulding operation in brief and give difference between compression and transfer moulding.	07 07
Q.2	(a)	Which are the Clamping systems used in Injection moulding machine? Explain Toggle system in detail with neat sketch.	07
	(b)		07
		OR	
	(b)	Explain Cup flow test and its significance for compression moulding process.	07
Q.3	(a)	Write a short note on- Shrinkage and Warpage	07
Q.C	(b)		07
	()	effect on moulding quality.	
		OR	
Q.3	(a)	Explain Monofilament extrusion process with neat sketch.	07
	(b)	List various types of screws used in Extrusion and explain each with neat sketch.	07
Q.4	(a)	Short note-	
•	()	(i) Breaker Plate and screen pack	04
		(ii) Melt fracture	03
	(b)	Give causes and remedies for the following defects in Injection moulding- Delamination, Flash, Flow marks, Weld lines	07
0.4	(a)	OR Give comparison between Single cores, extrader (SSE) and Twin Seres.	07
Q.4	(a)	Give comparison between Single screw extruder (SSE) and Twin Screw extruder (TSE).	U/
Q.4	(b)	Explain Bulk factor and Preforming in Compression moulding process.	07
Q.5	(a)	Write a short note on "Parison programming"	07
~	(b)	Explain: Extrusion stretch Blow moulding	07
	()	OR	
Q.5	(a)	Which types of dies are used in Blown film? Explain each with	07
-		advantages and disadvantages.	
	(b)	Give processing parameters for processing of Nylon and PC. Discuss special precautions to be taken while processing of these materials.	07
