Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V(New) • EXAMINATION - WINTER 2016

Subject Code:2152307 Date:30/11/2016

Subject Name:Plastic Extrusion Technology

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.

Q.1		Short Questions	14
	1	Back pressure is due to	
	2	Extruder used for processing of PTFE is	
	3	Masterbatches are made byextruder.	
	4	Die face cutter is used for	
	5	Function of screen pack is	
	6	Significance of helix angle is	
	7	Co- rotating twin screw extruder is used for	
	8	Define blow up ratio	
	9	Why hopper cooling is necessary?	
	10	Significance of L/D ratio	
	11	What is tie layer? Why it is used	
	12	Material used to manufacture screw	
	13	Why corona treatment is done on film?	
	14	What is the function of GODET?	
Q.2	(a)	What is Grooved barrel technology? Discuss in detail	03
	(b)	Discuss about Thrust bearing blocks of Single and Twin	04
		Screw Extruders	
	(c)		07
		?Classify Extruders and discuss parts of Single Screw	
		Extruder in detail	
	(.)	OR	07
	(c)	With a neat line diagram, discuss manufacture of PVC	07
Ω2	(a)	Pipes Discuss in detail heating systems used on Extruder	03
Q.3	(a)	machines	03
	(b)		04
	(c)	Discuss various types of drives for screw extruders.	07
	(0)	OR	0.
Q.3	(a)	Write the difference between Single and Twin screw	03
	()	extruders	
	(b)	What is Sizing? Why is it necessary? Discuss various	04
		methods of sizing.	
	(c)	Discuss the difference between co-rotating and counter	07
		rotating twin screw extruders	
Q.4	(a)	With neat diagram discuss various types of screw for	03
		different applications.	
	(b)	What is Compression ratio? Discuss practical	04
		significance of compression ratio.	~ =
	(c)	Discuss Wire and Cable Covering with a line diagram	07
0.4	(.)	OR	0.3
Q.4	(a)	• •	03
		manufacturing. explain any two with neat diagram	

	(b)	Give any four troubleshooting for manufacturing of pipes	04
	(c)	With a neat line diagram, discuss manufacture of Nylon	07
		Monofilaments.	
Q.5	(a)	Write about melt fracture.	03
	(b)	What is difference between film and sheet? What are the	04
		difference between blown films and cast films? Discuss	
	(c)	Explain manufacturing process for raffia with neat	07
		diagram along with its applications	
		OR	
Q.5	(a)	What is IBC? Discuss its importance	03
	(b)	Discuss the manufacture of braided hoses	04
	(c)	With a neat line diagram, discuss the manufacture of	07
		TQPP films	
