Sea	at No.:	Enrolment No.	
	Diplo	GUJARAT TECHNOLOGICAL UNIVERSITY oma Engineering - SEMESTER-VII • EXAMINATION – SUMMER • 2014	
Subject Code: 372302 Subject Name: Extrusion Die Design Time: 10:30 am – 1:00 pm Instructions:		Code: 372302 Date: 12/06/2014	
		0:30 am – 1:00 pm Total Marks: 70	
	1. 2. 3. 4.	Figures to the right indicate full marks.	
Q.1		Give classification of extrusion dies. Draw a neat sketch of any one die: (1) Pipe die (2) Film die. Label all the parts of die.	14
Q.2	(a) (b)	Explain general die design rules. Explain types of flow regarding polymer rheology with neat sketches. OR	07 07
	(b)	Describe about "Melt fracture".	07
Q.3	(a) (b)	Describe velocity profiles of Newtonian and non-Newtonian fluids. Explain factors affecting die design. OR	07 07
Q.3	(a) (b)	Explain function of screen pack and breaker plate. Explain materials for extrusion dies.	07 07
Q.4	(a) (b)	Explain various factors considered for adaptor design. Explain various factors considered for correct breaker plate assembly. OR	07 07
Q. 4	(a)	Differentiate between pressure die and tubing die of wire coating with neat sketches.	07
	(b)	Sketch and explain any one type of sizing calibration used in pipe extrusion.	07
Q.5	(a)	Which type of sheet die is used for heat sensitive materials? Draw a neat sketch of that die labeling all the parts.	07
	(b)	Explain stream lining of extrusion dies. OR	07
Q.5	(a)	Draw neat sketch of manifold type sheet die.	07
	(b)	Compare side fed and centre fed tubular film dies.	07
