

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGG. – DLM - SEMESTER– VII • EXAMINATION – WINTER 2012

Subject code: 372302**Date: 10-01-2013****Subject Name: Extrusion Die Design****Time: 02:30 pm – 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

Q.1	(a) List and explain various types of flow of fluids.	07
	(b) State various factors affecting extrusion die design.	07
Q.2	(a) Classify various types of extrusion dies with respect to melt flow direction and explain any one in detail with neat sketch.	07
	(b) Draw any one type of pipe die with nomenclature.	07
	OR	
	(b) Draw any one type of wire coating die with nomenclature.	07
Q.3	(a) Describe various materials of construction for extrusion dies.	07
	(b) Write short note on melt fracture phenomenon.	07
	OR	
Q.3	(a) Explain about die restriction.	07
	(b) Write short note on die swell phenomenon.	07
Q.4	(a) Explain various factors to be considered for adaptor design.	07
	(b) Explain function of screen pack and breaker plate with neat sketch.	07
	OR	
Q. 4	(a) State various factors to be considered for breaker plate design.	07
	(b) Discuss land length / orifice thickness ratio with respect to different viscosity plastics materials.	07
Q.5	(a) Compare side fed and centre fed tubular film dies.	07
	(b) Explain significance and advantages of rotating dies.	07
	OR	
Q.5	Give classification of various types of flat film and sheet dies. Draw sectional elevation of any one type of sheet die.	14
