GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – VII • EXAMINATION – SUMMER 2017

Subject Code: 372302   **Date: 04-05-2017**
Subject Name: EXTRUSION DIE DESIGN
Time: 2;30PM TO 5:00PM   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Each question carry equal marks (14 marks)**

Q.1	(a)	Define Newtonian and non-Newtonian fluids. Explain various types of flow with showing relation between shear rate and viscosity.	**07**
	(b)	Explain various die design rules.	**07**
Q.2	(a)	Define land length. Explain the significance of land length in die design.	**07**
	(b)	Explain various methods of streamlining extrusion dies.	**07**
		OR	
	(b)	Explain die-swell and melt fracture phenomena.	**07**
Q.3	(a)	State functions of breaker plate and screen packs. sketch any two breaker plate designs.	**07**
	(b)	State and explain various materials for extrusion dies.	**07**
		OR	
Q.3	(a)	State significance of die adaptor. Explain various aspects to be considered for die adaptor design.	**07**
	(b)	Explain die restriction and its importance in die design.	**07**
Q.4	(a)	State function of extrusion die. Explain classification of extrusion dies.	**07**
	(b)	Compare side fed and centre fed extrusion dies.	**07**
		OR	
Q.4	(a)	Draw sectional elevation of any one film die and label different parts.	**14**
Q.5	(a)	Explain the constructional features of wire coating die.	**07**
	(b)	Explain internal and external sizing calibrators.	**07**
		OR	
Q.5	(a)	Sketch any one pipe die and label different parts.	**07**
	(b)	Explain fish tail die with neat sketch.	**07**

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