GUJARAT TECHNOLOGICAL UNIVERSITY ME – SEMESTER-1 (NEW) EXAMINATION – WINTER 2016

Subject Code: 2712408 Date:03 Subject Name: Plastics Mould & Product Design Simulations		Code: 2712408 Date:03/01/20	/01/2017	
Til Ins	me: 2 tructio 1. 2. 3.	2:30 pm to 5:00 pm Total Marks: ons: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	70	
Q.1	(a) (b)	Explain the difference between Parting line and parting surface. Explain different types of parting surfaces with neat sketches Explain the principles of mould design.	07 07	
Q.2	(a) (b)	Explain the concepts of plastic product Design What are metal inserts? Explain the principles to be considered for placing metal inserts in plastic product.	07 07	
		OR		
	(b)	Explain the concept of 3-plate mould system with neat sketch	07	
Q.3	(a) (b)	Explain Dog-Leg cam and its actuation with neat sketch Explain Runner and Gate balancing concepts with minimum three diagrams each	07 07	
		OR		
Q.3	(a) (b)	Explain three different types of compression moulds with neat sketches What is transfer Mould? List the advantages and disadvantages over compression and injection mould	07 07	
Q.4	(a) (b)	What is blow-ratio? Explain the concept of Stretch blow moulding. Explain the concept of extrusion and explain its defects.	07 07	
Q.4	(a)	Explain different types of cooling systems in injection mouldings with neat sketches	07	
	(b)	Name different types of ejection systems and Explain any one ejection technique with appropriate diagram.	07	
Q.5	(a) (b)	Compare compression Mould vs Transfer Mould Vs Injection mould. What is Bulk factor? Write the formulas for calculating loading chamber depth, compression pressure and clamping force in compression mould.	07 07	
Q.5	(a)	Explain stereo lithography technique	07	
	(b)	Explain the concept of moulded Holes.	07	
