Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER–VII (NEW) EXAMINATION – WINTER 2020

Subject Code:2172601 **Date:19/01/2021**

Subject Name:Rubber Equipment Design-II

Time:10:30 AM TO 12:30 PM **Total Marks: 56**

Instructions:

1. **Attempt any FOUR questions out of EIGHT questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	**(a)**	Give the importance of Chrome plating.	**03**
	(b)	Write the properties required for Mold design.	**04**
	(c)	Explain the "Thermal consideration" of Transfer molding.	**07**
Q.2	**(a)**	Write the importance of performer in compression molding.	**03**
	(b)	List out the different ejection system used in molding and explain any one.	**04**
	(c)	Draw the different design of overflow used in compression molding and discuss the advantages and disadvantages of each.	**07**
Q.3	**(a)**	Which are the important aspects while designing the Die?	**03**
	(b)	Give the difference between Die and Mold.	**04**
	(c)	List out the different design of Die used according to flow of melt and explain each in detail.	**07**
Q.4	**(a)**	Which materials are used for die construction?	**03**
	(b)	Give the function of Die and Explain the important aspects of die design.	**04**
	(c)	Explain the Die Geometry in detail.	**07**
Q.5	**(a)**	Give the difference of Hot feed and Cold feed Extruder with respect to Processing Factor.	**03**
	(b)	Draw the design of Co rotating and counter rotating twin screw.	**04**
	(c)	Explain the action of Screw theory in detail.	**07**
Q.6	**(a)**	Write a brief note on Pin Type Extruder.	**03**
	(b)	Give the difference between Bimetallic liner and Induction Liner.	**04**
	(c)	Short note on "Iddon High Intensity Mixing Screw".	**07**
Q.7	**(a)**	Define the term (1) Sprue Bush (2) Shot capacity (3) Injection Unit.	**03**
	(b)	List out the Machine controls and process control variable and explain any one in brief.	**04**
	(c)	Discuss the variations in Injection Molding Techniques in detail.	**07**
Q.8	**(a)**	How to calculate cycle time in injection molding?	**03**
	(b)	Which thing we have to keep in mind while designing space availability in injection mold?	**04**
	(c)	Explain in detail about the FIFO and FILO with respect to Injection molding.	**07**

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