Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII(NEW) EXAMINATION – SUMMER 2019

Subject Code:2183602 Date:09/05/2019

Subject Name:Design & Fabrication Of Molds

Time:10:30 AM TO 01:00 PM Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	**(a)**	Explain following terms: (1) Parting lines (2) Ribs (3) Bosses	**03**
	(b)	Explain about different types of undercuts in moulded plastic parts.	**04**
	(c)	What are the different modifications to be done in nominal wall to improve its structural response?	**07**
Q.2	**(a)**	Suggest the appropriate location of heater in compression molding.	**03**
	(b)	Explain Approach section and land in extrusion process with figure.	**04**
	(c)	Explain in detail about Hot runner moulds and cold runner moulds.	**07**
		OR	
	(c)	Write about the basic heating systems for plates & Molds.	**07**
Q.3	**(a)**	Explain die design procedure steps.	**03**
	(b)	Why a small gate is desirable for any plastic product to be produce?	**04**
	(c)	Explain different types of gates used in polymer industries.	**07**
		OR	
Q.3	**(a)**	How to calculate loading chamber depth in compression molding.	**03**
	(b)	Explain in detail about semipositive vertical flash type of compression molding.	**04**
	(c)	Explain the tubing die with a neat sketch.	**07**
Q.4	**(a)**	What do you mean by die swell? Explain the various factors that influence by die swell.	**03**
	(b)	Explain the design of pot transfer mould with neat sketch.	**04**
	(c)	How to calculate number of cavities in Transfer moulds? Explain.	**07**
		OR	
Q.4	**(a)**	What do you mean by venting? Suggest various location of vent.	**03**
	(b)	What are the different factor that influence thermoset molding?	**04**
	(c)	Explain the following parts of Injection moulds with figure. (1) Fixed Clamping Plate (2) Runner Stripper Plate (3) Cavity Plate (4) Ejector Retainer Plate	**07**
Q.5	**(a)**	Give classification of Extrusion dies.	**03**
	(b)	What are the different types of heat losses occurred in compression mould? Explain it with formula.	**04**
	(c)	What do you mean by Plasticising capacity? How to calculate number of impression by plasticising capacity.	**07**
		OR	
Q.5	**(a)**	Explain various types of runner design in transfer molding.	**03**
	(b)	What are the selection criteria of a mould material?	**04**
	(c)	Define CAD. Explain the steps involved in CAD process. What are the benefits of implementing CAD?	**07**

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