

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

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