

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2021****Subject Code:3152309****Date:17/09/2021****Subject Name:Plastic Mold & Die Design****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.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS	
Q.1	(a) What is the basic difference between dies and mould?	03	
	(b) Enlist the different components used in mould assembly.	04	
	(c) Explain working principle of two-plate mould with its neat sketch.	07	
Q.2	(a) What is pin ejection?	03	
	(b) What are the advantages of split mould?	04	
	(c) Describe constructional details of three-plate mould with its neat sketch.	07	
OR			
Q.3	(c) Enlist different types of mould and explain any one of them.	07	
	(a) What is mould cooling and how it is achieved?	03	
	(b) List out various types of side core and side cavity.	04	
Q.3	(c) Write note on “material for mould”.	07	
	OR		
	Q.3	(a) What is runner ejection technique?	03
(b) Explain in brief mould design.		04	
(c) Differentiate between two-plate mould and three-plate mould.		07	
Q.4	(a) What is Underfeed-Stripper plate mould?	03	
	(b) Explain angle-lift split mould.	04	
	(c) Write short notes on molds for internal threaded components.	07	
OR			
Q.4	(a) Write down advantages and disadvantages of two-plate and three-plate mould.	03	
	(b) Write down different rheological consideration of material during die design.	04	
	(c) What is split mould and give views on different criteria consider during designing of split mould?	07	
Q.5	(a) Write about various types of threads used in mould design?	03	
	(b) Answer the following question,	04	
	<ol style="list-style-type: none"> i) High surface finish required in mould (True/False) ii) For mould making _____ metals are used. iii) _____ is used to eject the plastic product from the mould. iv) During moulding process, the cooling process of plastic products takes place within mould. (True/False) 		

- (c) Discuss briefly on, 07
- i) Mould making material
 - ii) Mould maintenance
 - iii) Split cores
 - iv) Sliding splits,
 - v) Undercut in mould
 - vi) Form pin
 - vii) Ejection system

OR

- Q.5** (a) Write short notes on internal undercuts of mould. 03
- (b) Explain the dies function used in extrusion process and its parts with neat sketch. 04
- (c) What is the basic principle and importance of different cooling design system in mould? 07
