Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII EXAMINATION – SUMMER 2016

Subject Code:182301 **Date:10/05/2016**

Subject Name:Plastics Mold & Die Design II

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.**

Q.1	**(a)**	What is shrinkage? Why plastic products shrink during processing? How to consider shrinkage effect in design of moulds?	**07**
	(b)	Explain about the fully automatic injection moulds.	**07**
Q.2	**(a)**	What is the importance of layout of ejection system? What are the different methods for ejecting products with internal undercuts?	**07**
	(b)	Describe the stripper bush ejection with the help of a sketch.	**07**
		OR	
	(b)	What are the requirements of a cooling system? How to calculate the amount of heat to be extracted from moulds?	**07**
Q.3	**(a)**	How heat rods & heat pipes extract heat from mould components? Explain.	**07**
	(b)	Explain about hydraulic actuation in split moulds with the help of a sketch.	**07**
		OR	
Q.3	**(a)**	Describe stripping internal undercuts with the help of a sketch.	**07**
	(b)	What is collapsible core? Write down the advantages and disadvantages of collapsible core.	**07**
Q.4	**(a)**	Write a short note on (i) Pinch-off design (ii) Blow ration in blow moulds	**07**
	(b)	What are the design considerations before designing a blow mould?	**07**
		OR	
Q.4	**(a)**	Describe the types of cooling systems used in a blow moulding with line diagram.	**07**
	(b)	What are the advantages and disadvantages on transfer moulding?	**07**
Q.5	**(a)**	Write a 'C' program for "no of impressions" in injection moulds.	**07**
	(b)	Explain about offset dies with a neat sketch.	**07**
		OR	
Q.5	**(a)**	How spring actuation system actuates the splits? Explain.	**07**
	(b)	Describe the stripper plate ejection method with the help of a suitable sketch.	**07**

****