Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2181921 **Date: 09/05/2017**

Subject Name: Design for Manufacturing and Assembly

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)**	Discuss the General Design Principles for Manufacturability.	**07**
	(b)	What is Geometrical Tolerancing? Draw the Symbols used for Form tolerance & Orientation tolerance.	**07**
Q.2	**(a)**	With Suitable Sketch, Discuss the basic Rules for Form Design of Forging.	**07**
	(b)	Design Recommendation For Parts Generated on Milling Machine.	**07**
		OR	
	(b)	Discuss Design for Accessibility and Design for Recyclability	**07**
Q.3	**(a)**	What is Group Technology? State its Advantages and limitations.	**07**
	(b)	Discuss the DFA Guidelines.	**07**
		OR	
Q.3	**(a)**	Explain about all the rules to be followed in designing a casting.	**07**
	(b)	Factors to be considered for the Sound welding joint.	**07**
Q.4	**(a)**	Discuss the features that Facilitate machining with suitable examples.	**07**
	(b)	Explain following. 1. Datum Feature & Datum Target. 2. Design for Clamp ability.	**07**
		OR	
Q.4	**(a)**	Factors to be considered for Energy Efficient Design of product.	**07**
	(b)	Explain following. 1. Design for Economy. 2. Tolerance Stack.	**07**
Q.5	**(a)**	What is Design for Environment? Discuss guidelines for DFE.	**07**
	(b)	Illustrate with suitable example and sketches, to Obviate cores.	**07**
		OR	
Q.5	**(a)**	Discuss the Design considerations for minimum material usage for Remanufacture.	**07**
	(b)	Explain the Stages of Product Life Cycle.	**07**

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