

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. **07**
1. Datum Feature & Datum Target.
2. Design for Clamp ability.
- OR**
- Q.4** (a) Factors to be considered for Energy Efficient Design of product. **07**
(b) Explain following. **07**
1. Design for Economy.
2. Tolerance Stack.
- 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**
