

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

**M.E –II<sup>st</sup> SEMESTER–EXAMINATION – JULY- 2012**

**Subject code: 1722803**

**Date: 10/07/2012**

**Subject Name: Product Design for Manufacturing**

**Time: 10:30 am – 13:00 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) Write types of plastics and its properties. **07**  
(b) Give overview of three stages of product design. **07**

- Q.2** (a) Explain how to evaluating part configuration for manufacturability. **07**  
(b) Explain how to evaluating parametric design for manufacturability. **07**

**OR**

- (b) Write down comparison between polymers and ceramics. **07**

- Q.3** (a) Write down recent development in casting and machining. **07**  
(b) Write down recent development in forming and finishing. **07**

**OR**

- Q.3** (a) Write down types of castings and explain any one. **07**  
(b) Explain Ergonomics and automated systems. **07**

- Q.4** (a) Write the anthropomorphic data and its application in ergonomic design. **07**  
(b) Explain product design for high-speed automatic assembly. **07**

**OR**

- Q.4** (a) Write down comparison between metal casting and forming. **07**  
**Q.4** (b) Write the limitations of anthropomorphic data. **07**

- Q.5** (a) Write the aesthetic concept of unity and its purpose. **07**  
(b) Write aesthetic concepts style and its environment. **07**

**OR**

- Q.5** (a) Explain selection of plastics for specific applications. **07**  
(b) Write the product design for manual assembly . **07**

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