Seat No.: _____ Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY

**BE - SEMESTER–VII • EXAMINATION – WINTER 2013**

**Subject Code: 171904** **Date: 28-11-2013**

**Subject Name: Product Design and Value Engineering**

**Time: 10:30 TO 01:00** **Total Marks: 70**

**Instructions:**

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

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|---|---|---|---|
| **Q.1** | **(a)** | Discuss duration and cost of product development | **07** |
| | **(b)** | Discuss generic product development process | **07** |
| **Q.2** | **(a)** | Discuss steps involved in product planning process | **07** |
| | **(b)** | Discuss how the customer's needs are interpreted during product development process | **07** |
| | | **OR** | |
| | **(b)** | How the final specification of product are being achieved. Elaborate steps involed. | **07** |
| **Q.3** | **(a)** | Discuss various design for rigidity and stiffness | **07** |
| | **(b)** | What is meant by design for production? Discuss with the help of illustration | **07** |
| | | **OR** | |
| **Q.3** | **(a)** | What is meant by worth of product? How it affect value of the product? | **07** |
| | **(b)** | Discuss value engineering job plan. Elaborate steps involved in brief. | **07** |
| **Q.4** | **(a)** | What is meant by value engineering methology? Give application of it. | **07** |
| | **(b)** | Discuss value engineering training plan. | **07** |
| | | **OR** | |
| **Q.4** | **(a)** | What is FAST diagram? Discuss points to be considered for construction of FAST diagram. | **07** |
| | **(b)** | Discuss value engineering team structure | **07** |
| **Q.5** | **(a)** | Discuss characteristics of successful product development process | **07** |
| | **(b)** | Discuss AMF development process | **07** |
| | | **OR** | |
| **Q.5** | **(a)** | Discuss AMF organization | **07** |
| | **(b)** | Discuss generic product development process | **07** |

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