

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – WINTER • 2014

Subject Code: 171904

Date: 27-11-2014

Subject Name: Product Design and Value Engineering

Time: 10:30 am - 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) Define Product design. Explain importance of Product design. 07
(b) Enlist and Explain major techniques of Product design and development 07
- Q.2 (a) Enlist and Explain various factors to contribute new product development. 07
(b) Describe concept development techniques (front end process) 07
- OR**
- (b) Explain different kind of organizations used for product development 07
- Q.3 (a) Discuss product life cycle respect to technology life cycle with neat sketch. 07
(b) Explain new product development funnel with neat sketch. 07
- OR**
- Q.3 (a) Write a brief note on Quality Function Deployment 07
(b) What is NPD process? Explain six phases of NPD process. 07
- Q.4 (a) Explain process of Value Engineering. Discuss reasons for value analysis. 07
(b) What are the areas of application of value engineering? 07
- OR**
- Q.4 (a) Discuss function evaluation techniques. 07
(b) Explain classification of functions. 07
- Q.5 (a) Explain different value engineering job plan. 07
(b) Explain project selection 07
- OR**
- Q.5 (a) Explain importance of rotational job assignment. 07
(b) Explain FAST diagram procedure and its importance. 07
