

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- VI • EXAMINATION-SUMMER 2015****Subject code: 161502****Date:04/05/2015****Subject Name: Product Development and Value Engineering****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) Give product classification of different types of product available in market. Explain for which type of product , design process is very difficult? **07**

(b) Explain product design process of any product available in market, with example. **07**

Q.2 (a) How can you say that a particular product will fail in market as a designer point of view? **07**

(b) Explain product analysis process with example. **07**

OR

(b) Write note: Use of Ergonomics principle in product design.. **07**

Q.3 (a) Discuss, how market research play an important role in product development process? **07**

(b) Explain the importance of material selection process in design of any product with example. **07**

OR

Q.3 (a) Define value engineering. Explain the value analysis process to be followed by any industry, with example. **07**

(b) Explain the importance of creativity in value engineering with suitable example. **07**

Q.4 (a) Explain, why product design and value engineering process must start simultaneously? **07**

(b) Write note: Value engineering job plan. **07**

OR

Q.4 (a) Explain, how productivity can be improved with VE? **07**

(b) Write note: State basic and secondary functions of bicycle. **07**

Q.5 (a) What are the reasons of poor value of any product? How can you find it and solve the problem of poor value? **07**

(b) Write note: FAST diagram: what and why? **07**

OR

Q.5 (a) “The value of the product may differ person to person” .Criticize the statement. **07**

(b) Define the various values and explain these values by considering the following products: **07**

a. Ball pen. B. Fan 3. Lathe.
