

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.
