

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– VI (New) EXAMINATION – WINTER 2019****Subject Code: 2161502****Date: 06/12/2019****Subject Name: Product Development & Value Engineering****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

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

		MARKS
Q.1	(a) What are product development goals?	03
	(b) What do you understand by primary and secondary functions of the product?	04
	(c) Explain product design procedure.	07
Q.2	(a) What is feasibility study?	03
	(b) Explain various types of value with examples.	04
	(c) Write short note on “Standardization and its role in product design”.	07
OR		
	(c) Write note: Use of Ergonomics principle in product design.	07
Q.3	(a) What is product life cycle?	03
	(b) State the importance of value engineering.	04
	(c) List and explain the characteristics of successful product development.	07
OR		
Q.3	(a) What is ‘Product development’?	03
	(b) Discuss importance of value engineering job plan.	04
	(c) Discuss role played by human engineering in a product design, quoting an example.	07
Q.4	(a) What are the sources of ideas for developing new product?	03
	(b) Explain the importance of product planning.	04
	(c) What factors a design engineer should consider while designing a product?	07
OR		
Q.4	(a) What are the attributes of product specification?	03
	(b) What do you understand by a good product design?	04
	(c) Explain: Product development is continuous process.	07
Q.5	(a) Classify various products available in market.	03
	(b) Explain the reasons for poor value.	04
	(c) State and discuss the phases of value analysis in detail.	07
OR		
Q.5	(a) Define simplification and product specification.	03
	(b) Define VE. What is value?	04
	(c) Write short note on “Material and process selection in value engineering”.	07
