Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION - SUMMER • 2014

	Subje	ect Code: 161502 Date: 21-05-2014	
	•	ect Name: Product Development & Value Engineering : 10:30 am - 01:00 pm Total Marks: 70	
	Instruc	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a) (b)	List and explain the characteristics of successful product development. Define Product. Classify various products available in market. How will you say that particular product is excellent or robust? Explain.	07 07
Q.2	(a)	Explain the importance of product planning. Explain product planning process in detail.	07
	(b)	Explain with example the role of market research / survey in design phase. OR	07
	(b)	Explain the importance of duration and cost of product development in product development.	07
Q.3	(a)	"Most of excellent product fails in market and bad product success in market" This statement is true or false? Discuss with your view points.	07
	(b)	Explain the following in connection with design for manufacturing:- 1. Reduction of cost of components 2. Reduction of cost of assembly.	07
Q.3	(a) (b)	Write short note on "Role of allowance, tolerance in detailed design and assembly" Write short note on "Standardization and its role in product design".	07 07
Q.4	(a) (b)	Define VE. What is value? Explain various types of value with examples. Explain the project selection and methods selection with reference to selection of evaluation of value engineering projects.	07 07
Q.4	(a)	You are appointed as a senior engineer (Product design) in a ceramic company. It is required to develop a new improved design of ceramic tiles. How will you carry out the work assign to you?	07
	(b)	Explain the life cycle cost in detail.	07
Q.5	(a)	You are appointed as a Product design and development engineer (Product design) in a multinational home appliance company. To develop new/improved models of various home appliances, how will you attempt this task? While developing any appliance which parameters you will consider?	07
	(b)	Write short note on "Material and process selection in value engineering" OR	07
Q.5	(a) (b)	Explain the different phases of value engineering job plan in detail. "Value engineering raises production and productivity" Criticize the statement.	07 07
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