02 MAY 2023

Reg. No.												

Question Paper Code	11832

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2023

Sixth Semester

Production Engineering

PR8072 - NEW PRODUCT DEVELOPMENT

(Regulations 2017)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	List the characteristic of a successful product development.	2,K1,CO1
2.	Define the term market segmentation.	2,K1,CO1
3.	What is meant by benchmarking?	2,K1,CO2
4.	List the steps used in identifying the needs of the customer.	2,K1,CO2
5.	List some of the methods used to choose the concept.	2,K1,CO3
6.	What is meant by functional decomposition?	2,K1,CO3
7.	State the function of decision matrix and decision trees.	2,K1,CO4
8.	Define the term product architecture.	2,K1,CO5
9.	List the steps involved in testing the concept of a product.	2,K1,CO5
10.	What do you meant by activity based costing?	2,K1,CO6

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	Explain the various phases of product development.	13,K2,CO1
		OR	
	b)	Describe the steps involved product planning and also list out the points to remember for effective product planning.	13,K2,CO1
12.	a)	Explain the process applied for identifying customer needs with suitable example.	13,K2,CO2
		OR	
	b)	Explain the process of establishing specifications of a product and the role of Quality Function Deployment with an example.	13,K2,CO2
13.	a)	Explain in detail about the concept generation methods.	13,K2,CO3
		OR	
	b)	State and explain how functional and physical decomposition used in solving a problem.	13,K2,CO3

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

14. a) Explain the decision making theory and utility theory in detail with examples. *13,K2,CO4*

OR

b) Explain the concept evaluation process in detail with an example. *13,K2,CO4*

15. a) Enumerate the Steps involved in design for environment in manufacturing a product. *13,K2,CO5*

OR

b) Explain the process of developing the product architecture with an example. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Explain general steps in estimating the cost of a manufactured product. *15,K2,CO6*

OR

b) Summarize various categories of cost in detail. *15,K2,CO6*