



B.E/B.TECH DEGREE EXAMINATIONS: MAY 2018

(Regulation 2015)

Fourth Semester

U15GST008 : FOUNDATION SKILLS IN INTEGRATED PRODUCT DEVELOPMENT

(Common to MCE/IT)

COURSE OUTCOMES

- CO1:** Analyze various factors affecting the product development decision and their importance on new product development
- CO2:** Comparison of various products and services, types and methods of product development, its planning and management.
- CO3:** Analyze and apply the requirement based on critical parameters and develop system models.
- CO4:** Apply and analyze the conceptualization, design prototyping, testing certification and documentation processes related to product development.
- CO5:** Apply and analyze concepts of product maintenance and strategies for obsolescence management, replacement and disposal.
- CO6:** Demonstrate understanding of product development in academic and real life situations, breakeven and tradeoff analysis in product development, IPR and security aspects related to product development.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

Matching type item with multiple choice code

	List I	List II	
1.	A. Government may impose a new tax or duty due to which entire revenue generating structures of organizations might change.	i. Economical	CO1 [K ₁]
	B. A rise in the inflation rate of any economy would affect the way companies' price their products and services.	ii. Political	
	C. Consumer laws, safety standards, labor laws etc.	iii. Technical	
	D. Amount of technological awareness that a market possesses	iv. Legal	

	A	B	C	D
a)	ii	i	iii	iv
b)	iii	iv	ii	i
c)	ii	iv	iii	i
d)	ii	i	iv	iii

2. New-product development starts with _____ CO2 [K1]
- a) Idea screening b) Idea generation
c) Concept development and testing d) Marketing strategy development
3. In a brain storming session, the rules to be followed includes CO3 [K1]
- 1) Equal opportunity for all the participants.
2) Allow Judgments on the critical discussions.
3) Allowing participants to build spontaneously on others ideas.
4) Listening to the key person in expressing ideas
- a) 1,3 b) 1,4
c) 1,2 d) 2,3
4. These models are used to answer specific questions of feasibility about a product. CO4 [K1]
- a) Alpha b) Beta
c) Proof of Concept d) Industrial design
5. **Assertion (A):** Lower operational and labor costs are among the primary reasons why companies choose to outsource. CO5 [K₂]
Reason (R): Executed properly it has a defining impact on a company's revenue recognition and can deliver significant savings.
- a) Both A and R are Individually true and R is the correct explanation of A b) Both A and R are Individually true but R is not the correct explanation of A
c) A is true but R is false d) A is false but R is true
6. Intellectual Property Rights (IPR) protect the use of information and ideas that are of CO6 [K1]
- a) Ethical value b) Moral value
c) Social value d) Commercial value
7. Enlist the following statement in sequence in accordance to the various stages in product life cycle: CO2 [K1]
1. Stage of the cycle could be the most expensive for a company launching a new product
2. The product is established and the aim for the manufacturer is now to maintain the market share
3. It is possible for businesses to invest more money in the promotional activity to maximize the growth potential
4. The consumers are switching to a different type of product

22. What is a Product life cycle? Explain the various stages in the product life cycle. Also give your inference on the S curve and Inverse bath tub curve in assessing a products life. CO2 [K3]
23. In detail explain any four product development methodologies. CO2 [K2]
24. Explain the various concept generation techniques. CO4 [K2]
25. What are the mitigating measures that can be taken in a supply chain? (5)
Explain how planning, an effective way mitigating obsolescence. (5) CO5 [K2]
What is sustenance? (4)
26. What is an IPR? And give the classification along with the description on the various types of IPR available. CO6 [K2]
27. Explain in your own words the importance of having House of Quality as a part of product development cycle. CO3 [K3]
