



B.E DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Seventh Semester

AUTOMOBILE ENGINEERING

U18AUE0023: Product Lifecycle Management

COURSE OUTCOMES

- CO1:** Apply concepts of product lifecycle management and visioning
CO2: Apply relative importance of product concepts, processes and workflow
CO3: Apply principles of collaborative product development
CO4: Outline considerations in system architecture understand the industrial process
CO5: Apply product lifecycle management strategy and assessment
CO6: Apply the infrastructure assessment, assessment of current systems and applications.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

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|--|-----|-------------------|
| 1. Define PLM in terms of Engineering Products. | CO1 | [K ₂] |
| 2. What are the main elements of Product Lifecycle Management (PLM)? | CO1 | [K ₂] |
| 3. List the capabilities of PLM Software. | CO2 | [K ₁] |
| 4. Why Conceptualization is important in Design? | CO2 | [K ₂] |
| 5. Why engineering change management is necessary? | CO3 | [K ₂] |
| 6. Mention the importance of engineering vaulting. | CO3 | [K ₂] |
| 7. List the features consideration in system architecture. | CO4 | [K ₁] |
| 8. What are the types of Product Architecture? | CO4 | [K ₂] |
| 9. What is PLM strategy in engineering economics? | CO5 | [K ₂] |
| 10. Interpret Infrastructure Assessment | CO6 | [K ₂] |

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

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|--|----|-----|-------------------|
| 11. a) What are the benefits of PLM? | 4 | CO1 | [K ₂] |
| b) Explain Product Lifecycle Management Visioning with relative example. | 12 | CO1 | [K ₂] |

12.	a)	Illustrate Environment driving product lifecycle management.	8	CO2	[K ₂]
	b)	Write Short notes on Business Drivers for PLM.	8	CO2	[K ₂]
13.	a)	Explain the following (i) Product reuse and (ii) Start and Smart Parts	12	CO3	[K ₂]
	b)	Interpret Virtual Testing and Validation.	4	CO3	[K ₂]
14.		Emphasize the functionality scope of the Product Lifecycle Management systems in detail.		CO4	[K ₃]
15.		Develop a PLM Strategy for upcoming electrical vehicle in market.		CO6	[K ₄]
16.	a)	Explain the role management with suitable illustration determining the various roles (played by people) involved in the life cycle of a product architecture.		CO5	[K ₃]
