

# CBCS SCHEME

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15ME835

## Eighth Semester B.E. Degree Examination, Dec.2023/Jan.2024 Product Life Cycle Management

Time: 3 hrs.

Max. Marks : 80

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Define PLM? Explain the different stages of PLM. (08 Marks)  
b. Discuss and explain briefly the components of PLM. (08 Marks)

OR

- 2 a. Discuss and explain the steps involved in product life cycle model with a neat sketch. (06 Marks)  
b. Summarize the five step process in implementing the PLM strategy. (10 Marks)

### Module-2

- 3 a. With an example, discuss the various steps involved in engineering design. (08 Marks)  
b. Discuss the role of concurrent engineering in Product design and development. (08 Marks)

OR

- 4 a. Write short notes on recycling. (06 Marks)  
b. What is design for X and design – centered development model? (10 Marks)

### Module-3

- 5 a. Sketch and explain the various activities of new product development. (08 Marks)  
b. How do you estimate the market potential of a new product? Explain. (08 Marks)

OR

- 6 a. What is Decision Support System? How it is helpful in decision making? Explain. (08 Marks)  
b. With the aid of a flow chart, explain the process of launching and tracking of a new product. (08 Marks)

### Module-4

- 7 a. Explain briefly the elements of Technology forecasting. (06 Marks)  
b. Define Technology forecasting. Explain briefly the methods of technology forecasting. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 8 a. Discuss and explain briefly the importance of Relevance tree and mission flow diagram used in technology forecasting. (08 Marks)
- b. Explain briefly the methodologies and tools involved in product innovation process. (08 Marks)

**Module-5**

- 9 a. What is Model building? How do you classify them? Explain. (06 Marks)
- b. Explain the following :
- i) Product structures
- ii) Digital mock – up. (10 Marks)

OR

- 10 Explain the following :
- a. Data model.
- b. Product configuration.
- c. 3D CAD systems.
- d. Variant Management. (16 Marks)

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