



# CBCS SCHEME

15ME835

## Eighth Semester B.E. Degree Examination, June/July 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 need for PLM. (08 Marks)  
b. Explain the phases of PLM. (08 Marks)

OR

- 2 a. What is Product Data Management? List the advantages of PDM. (10 Marks)  
b. Discuss on opportunities of PLM. (06 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. Define Technological change. Mention methods of technology forecasting. (08 Marks)  
b. With an example explain relevance tree technique. (08 Marks)

OR

- 8 a. Write short notes on : i) Morphological methods ii) Flow diagram. (08 Marks)  
b. What are methods and tools in the innovation process according to situation? (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)

\*\*\*\*\*

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.