

# CBCS SCHEME

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18MA822

**Eighth Semester B.E. Degree Examination, June/July. 2023**

## **Product Life Cycle Management**

Time: 3 hrs.

Max. Marks: 100

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

### **Module-1**

- 1 a. Briefly explain the basic components of a PDM system. (10 Marks)
- b. Define PDM system. Explain the importance and reasons for implementing them in organization. (10 Marks)

**OR**

- 2 a. Explain the opportunities and benefits of PLCM. (10 Marks)
- b. What are the components of PLM and explain the phases of PLM with a neat sketch. (10 Marks)

### **Module-2**

- 3 a. Explain the various strategies for Recovery at End of product life. (10 Marks)
- b. Discuss the role of concurrent engineering in product design and development. (10 Marks)

**OR**

- 4 a. With an example, discuss the various steps involved in Engineering design. (10 Marks)
- b. What is product recycling? Discuss the benefits of product recycling. (10 Marks)

### **Module-3**

- 5 a. Define New Product Development (NPD) and Discuss the need for NPD. (10 Marks)
- b. Explain briefly the steps involved in product redesign. (10 Marks)

**OR**

- 6 a. What is Decision Support System (DSS)? Discuss the components for building DSS. (10 Marks)
- b. Explain briefly Launching the Tracking of new product program. (10 Marks)

### **Module-4**

- 7 a. Briefly explain relevance tree technique with a suitable example. (10 Marks)
- b. Define Technology Forecasting. Briefly explain the different methods of technology forecasting. (10 Marks)

**OR**

- 8 a. Define Technological change. Explain briefly its impact on society. (10 Marks)
- b. Briefly discuss the various methodologies and tools in product innovation. (10 Marks)

### **Module-5**

- 9 a. Briefly explain any two common techniques for analyzing virtual product models. (10 Marks)
- b. Explain briefly the concept of product configuration and its benefits. (10 Marks)

**OR**

- 10 a. Explain briefly the product data technology and its classification. (10 Marks)
- b. Discuss 3D – CAD system and Digital Mock – up tools used in virtual product development. (10 Marks)

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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.