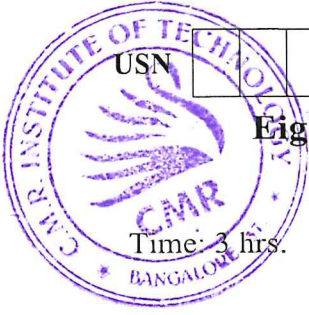


# CBCS SCHEME

15ME835



USN

## Eighth Semester B.E. Degree Examination, November 2020 Product Life Cycle Management

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions irrespective of modules.*

### Module-1

- 1 a. Explain the different phases of PLCM with a neat sketch. (08 Marks)  
b. Explain the component of PLCM. (08 Marks)
- 2 a. Explain in brief the basic components of a PDM system. (08 Marks)  
b. Explain the process of implementing the PLM strategy. (08 Marks)

### Module-2

- 3 a. Discuss the various steps involved in product design. (08 Marks)  
b. What is Design for X in product design? List the various techniques in design for X-system. (08 Marks)
- 4 a. What is product recycling? Discuss the benefits of product recycling. (08 Marks)  
b. Discuss in brief the various human factors to be incorporated during product design. (08 Marks)

### Module-3

- 5 a. Define New Product Development (NPD) and discuss the need for NPD. (08 Marks)  
b. Discuss components for building Decision Support System (DSS). (08 Marks)
- 6 a. Explain the steps involved in product Redesign. (08 Marks)  
b. What are different factors for estimating market opportunities for new product? (08 Marks)

### Module-4

- 7 a. What is technology forecasting? State the need for technology forecasting. (07 Marks)  
b. Write short notes on : (09 Marks)  
i) Delphi technique ii) Scenario writing iii) Growth curves.
- 8 a. Discuss the mission flow diagram in technology forecasting. (08 Marks)  
b. Briefly discuss the various methodologies and tools in product innovation process. (08 Marks)

### Module-5

- 9 a. Write short notes on : i) 3D CAD system ii) Digital Mock-up. (08 Marks)  
b. Discuss the need and benefits of virtual product development. (08 Marks)
- 10 a. What is data model? Discuss the different types of data models. (08 Marks)  
b. Explain the important guidelines to be followed in writing product description. (08 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.

