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17ME835

## Eighth Semester B.E. Degree Examination, July/August 2022 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. Define Product Life Cycle Management. Discuss the Opportunities (any 4) of Product Life Cycle Management. (10 Marks)
- b. Discuss briefly the various Components of Product Life Cycle Management. (10 Marks)

OR

- 2 a. Discuss briefly the steps involved in the development of a PLM strategy. (10 Marks)
- b. Explain the basic component of Product Data Management System. (10 Marks)

### Module-2

- 3 a. List the benefits and objectives of a good Product Design. (10 Marks)
- b. What is Concurrent Engineering? List the advantages of Concurrent Engineering. (10 Marks)

OR

- 4 a. Discuss briefly the various steps involved in Product Design Process. (07 Marks)
- b. What is Product Recycling? Also discuss the benefits of Recycling. (13 Marks)

### Module-3

- 5 a. What is New Product Development (NPD)? Discuss the need for NPD. (10 Marks)
- b. Explain the step involved in NPD. (10 Marks)

OR

- 6 a. Explain the steps involved in structuring New Product Development. (14 Marks)
- b. List the characteristics of an ideal Decision Support System. (06 Marks)

### Module-4

- 7 a. Discuss the meaning of Technological change with examples. Also mention its impact on Society. (10 Marks)
- b. Explain the following Technology Forecasting method :  
Brain Storming , Delphi technique and Scenario writing. (10 Marks)

OR

- 8 a. What is Technology Forecasting? Mention the reasons for Technology Forecasting. (08 Marks)
- b. Explain 'Relevance Tree Technique' of Forecasting with a suitable example. (12 Marks)

### Module-5

- 9 a. What is Virtual Product Development? Mention the benefits of Virtual Product Development. (10 Marks)
- b. Discuss the 3D , CAD system used for Virtual Product Development, also mention its benefits. (10 Marks)

OR

- 10 a. What is Product Data Technology? Discuss the classification of Product Data. (10 Marks)
- b. Illustrate the Generic Product Structure of a Bicycle. (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.