CBCS SCHEME

USN

15ME835

Eighth Semester B.E. Degree Examination, July/August 2021
Product Life Cycle Management

Time: 3 hrs. Max. Marks: 80

Note: Answer any FIVE full questions.

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

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)**

3 a. Define Engineering Design? Explain briefly the steps involved in Engineering Design. **(08 Marks)**
b. Define Product Recycling? Discuss the various benefits of product recycling. **(08 Marks)**

4 a. Discuss and explain briefly the concepts involved in organization and decomposition in product design by considering a suitable example. **(08 Marks)**
b. Discuss and explain briefly the different guidelines to be followed during design for manufacturing and assembly. **(08 Marks)**

5 a. Explain the benefits of New Product development. **(06 Marks)**
b. Summarize the steps involved in estimating the market opportunities for a new product. **(10 Marks)**

6 a. Discuss the steps involved in launching of a New Product. **(10 Marks)**
b. Explain briefly the need and benefits of product redesign. **(06 Marks)**

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

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)**

9 a. Summarize the tools involved in virtual product development. **(08 Marks)**
b. Illustrate with an example the Generic Product Structure. **(08 Marks)**

10 a. Define product data technology. Explain briefly the different categories of product data technology. **(06 Marks)**
b. Define Data Model. Explain briefly the different types of data models used in product life cycle management. **(10 Marks)**

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