USN | | | | | | | | | | **15ME835**

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 :
        i) Delphi technique   ii) Scenario writing   iii) Growth curves.   (09 Marks)

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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