CBCS SCHEM

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

Eighth Semester B.E. Degree Examination, June/July 2019
Product Life Cycle Management

Time: 3 hrs.   Max. Marks: 80

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

Module-1

1 a. Define PLM. List and explain the different phases of Product Life Cycle.   **(06 Marks)**
   b. What is PLM Strategy? Explain.   **(04 Marks)**
   c. List the benefits of PLM.   **(06 Marks)**

OR

2 a. Sketch and explain the PLM has a holistic approach to the management of a product.
                                                                                (06 Marks)
   b. List and explain the various opportunities of PLM.   **(06 Marks)**
   c. What do you mean by PLM feasibility study? Explain.   **(04 Marks)**

Module-2

3 a. What is Engineering design? Explain.   **(04 Marks)**
   b. Sketch and explain the product design process.   **(06 Marks)**
   c. Sketch and explain the recovery strategies at end of life.   **(06** Marks)

OR

4 a. Sketch and explain the comparison between sequential and concurrent engineering in product development process.   **(06 Marks)**
   b. List and explain the most common DFX techniques used in the product design and development process.   **(06 Marks)**
   c. Explain the human factors to be considered in product design.   **(04 Marks)**

Module-3

5 a. Sketch and explain the various activities of new product development.   (08 **Marks)**
   b. How do you estimate the market potential of *a* new product? Explain.   **(08 Marks)**

OR

6 a. What is Decision Support System? How it is helpful in decision making? Explain. **(08 Marks)**
   b. With the aid of a flow chart, explain the process of launching and tracking of a new product.
                                                                                (08 Marks)

Module-4

7 a. Define Technology Forecasting. Explain why technology forecasting is important.
                                                                                (08 Marks)
   b. List and explain any one method of Technology Forecasting.   **(08 Marks)**

OR

8 a. Sketch and explain the importance of 'Relevance Tree' by takin2, Automobile   as an example.   **(08 Marks)**
   b. List and explain the importance of the innovation process.   **(08 Marks)**

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Module-5

9 a. What is Model building? How do you classify them? Explain.   **(06 Marks)**

b. Explain the following :

  i) Product structures   ii) Digital mock — up.   **(10 Marks)**

OR

10 Explain the following :

a. Data model.

b. Product configuration.

c. 3D CAD systems.

d. Variant Management.   **(16 Marks)**