USN ☐☐☐☐☐☐☐☐☐☐

10ME769

Seventh Semester B.E. Degree Examination, June/July 2017
Product Lifecycle Management

Time: 3 hrs.

Max. Marks: 100

Note: *Answer FIVE full questions, selecting*
at least TWO questions from each part.

PART – A

1 a. Define product Life Cycle Management. Explain the PLCM model with a neat sketch.
(10 Marks)
   b. Explain the opportunities and benefits of PLCM.
(10 Marks)

2 a. Explain the various characteristics of PLCM.
(10 Marks)
   b. Discuss the various drivers of PLCM.
(10 Marks)

3 a. What is a product data management system? What are the basic components of a PDM system?
(10 Marks)
   b. Classify and explain the reasons for implementing a PDM system.
(10 Marks)

4 a. Define collaborative product development. What are the various drivers and aspects of collaborative product development?
(10 Marks)
   b. Write a note on :
      i) Digital mock up and prototype development
      ii) Virtual testing and validation.
(10 Marks)

PART – B

5 a. Briefly explain the tools of communication for collaborative work.
(10 Marks)
   b. What is the importance of creating CAD drawings and animation for assembly instructions in the context of collaborative work? Explain.
(10 Marks)

6 a. Discuss the parameters considered for optimization of design in the context of PLCM.
(10 Marks)
   b. What role do "know-how" and "Best Practices" play in the knowledge aspect of PLCM?
(10 Marks)

7 a. What is digital manufacturing? What are it benefits?
(10 Marks)
   b. Write a note on :
      i) Manufacturing the first one
      ii) Virtual learning curve.
(10 Marks)

8 a. What are the four important PLCM initiatives to support the corporate objectives? Explain.
(10 Marks)
   b. What are the various constituents that need to be considered for assessment of current systems? What precautions need to be taken during this assessment?
(10 Marks)

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