

UNIVERSITY OF CALICUT
The School of Engineering
CBCS SCHEME

USN

15ME835

Eighth Semester B.E. Degree Examination, July/August 2022
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. With an example, discuss the various steps involved in engineering design. (08 Marks)
- b. Discuss the role of concurrent engineering in Product design and development. (08 Marks)

OR

- 4 a. Write short notes on recycling. (06 Marks)
- b. What is design for X and design – centered development model? (10 Marks)

Module-3

- 5 a. What is New Product Development (NPD)? What are the needs and benefits? (08 Marks)
- b. Define building decision support system with all components. (08 Marks)

OR

- 6 a. Discuss on implementing new product development. (08 Marks)
- b. Explain launching and tracking of new product program. (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 taking Automobile as an example. (08 Marks)
- b. List and explain the importance of ideation tools in the innovation process. (08 Marks)

Module-5

- 9 a. Explain the use of digital Mock – Up in product development. (06 Marks)
- b. Explain the technology involved in solid modeling for building 3D models. (10 Marks)

OR

- 10 a. What is Product data technology? Explain variant management. (08 Marks)
- b. Discuss the need and benefits of variant product development. (08 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. 12+8=50, will be treated as malpractice.