

# GBCS SCHEME



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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, 42+8 = 50, will be treated as malpractice.