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PRESIDENCY UNIVERSITY BENGALURU

 **SET-A**

SCHOOL OF ENGINEERING

 **END TERM EXAMINATION – MAY/JUNE 2024**

**Semester :** Semester VI - 2021

**Course Code :** MEC4010

**Course Name :**  Product Life Cycle Management

**Program:** B. Tech.

**Date :** June 21, 2024

**Time :** 1:00 PM - 4:00 PM

# Max Marks : 100

**Weightage :** 50%

# Instructions:

1. *Read all questions carefully and answer accordingly.*
2. *Question paper consists of 3 parts.*
3. *Scientific and non-programmable calculator are permitted.*
4. *Do not write any information on the question paper other than Roll Number.*

**PART A**

**ANSWER ANY FIVE QUESTIONS 5QX2M=10M**

1. What are the benefits of using Teamcenter for BOM management?
2. How does Teamcenter manage BOM data security?
3. Name the elements of Ramp-up.
4. Explain briefly entrepreneurial culture.
5. What is bill of material (BOM).in the context of Teamcenter?
6. Strategy is the blueprint of decisions in an organization. Justify the statement.
7. What is the role of workflows in Teamcenter?

(CO3) [Knowledge] (CO3) [Knowledge] (CO4) [Knowledge] (CO4) [Knowledge] (CO5) [Knowledge] (CO5) [Knowledge] (CO2,CO1) [Knowledge]

**PART B**

**ANSWER ANY FIVE QUESTIONS 5QX10M=50M**

1. Explain the significance of a Multilevel Bill of Materials (BOM) structure in the manufacturing industry. How does a Multilevel BOM differ from a Single Level BOM, and what advantages does it offer in complex product assemblies?

(CO3) [Comprehension]

1. Describe the importance of Marketing Collateral in the product development process. How can different types of marketing collateral, such as email, social media, and events, contribute to promoting a product effectively?

(CO3) [Comprehension]

1. Explain what is the difference between digitization and digitalization, and how do they contribute to digital transformation?

(CO4) [Comprehension]

1. Depict a tree diagram showing the key hurdles and obstacles faced in the realm of digital manufacturing?

(CO4) [Comprehension]

1. How can role-based user training contribute to the seamless integration and effective utilization of the new PLM system tools and processes?

(CO5) [Comprehension]

1. What approach should be taken during PLM system implementation to ensure effective achievement of strategic goals and encourage process improvement within the company?

(CO5) [Comprehension]

1. Explain the different stages of the product life cycle and how companies can extend the life cycle of their products through various strategies.

(CO1,CO2) [Comprehension]

**PART C**

**ANSWER ANY TWO QUESTIONS 2QX20M=40M**

1. You are a Product Development Manager tasked with implementing a new PLM system in a manufacturing company. Explain how you would utilize different types of Bill of Materials (BOM) - such as Manufacturing BOM, Engineering BOM, and Sales BOM - within the PLM system to streamline the product development process. Provide a detailed plan on how you would integrate these BOM types, ensure data accuracy, and facilitate collaboration between design, engineering, and sales teams.

(CO3) [Application]

1. Your company is considering implementing a PLM system, but there are concerns about the potential risks and challenges. Conduct a comprehensive assessment to identify potential obstacles and develop mitigation strategies.

(CO4) [Application]

1. You are the PLM manager for a company that manufactures industrial machinery. Your company is planning to expand into new international markets, and you need to develop a PLM strategy to support this expansion. How would you approach this task?

(CO5) [Application]