Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End Term Examinations – December 2025

Date: 05-12-2025 **Time:** 01:00pm – 04:00pm

School: COMMON TO ALL SCHOOL	**Program:** COMMON TO ALL PROGRAM	
Course Code : MEC3251	**Course Name:** Supply Chain Management	
Semester: OE	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	CO1	CO2	CO3	CO4	CO5	CO6
Marks	14	14	14	12	22	24

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1.	What are the three important flows in a Supply Chain?	**2 Marks**	**L1**	**CO1**
2.	Differentiate between efficient and responsive supply chains.	**2 Marks**	**L2**	**CO1**
3.	What do mean by Supply chain network design?	**2 Marks**	**L1**	**CO2**
4.	Write the importance of distribution network in today's global Supply Chains.	**2 Marks**	**L2**	**CO2**
5.	**What is** "Lead Time" in supply chain operations**?**	**2 Marks**	**L1**	**CO3**
6.	How will you differentiate quantitative and qualitative forecasting?	**2 Marks**	**L2**	**CO3**
7.	Under what circumstances pipelines are considered as a mode of transportation? What sort of products are generally transported in this mode?	**2 Marks**	**L1**	**CO4**
8.	Who is generally called as Logistics service provider?	**2 Marks**	**L2**	**CO5**
9.	What do you mean by Supply chain digitization?	**2 Marks**	**L1**	**CO6**
10.	What is the role of artificial intelligence (AI) in demand forecasting?	**2 Marks**	**L2**	**CO6**

Part B

Answer the Questions. **Total Marks 80M**

11.	**a.**	Elaborate on why effective decision-making is critical in supply chain management, highlighting the three levels of decisions.	**10 Marks**	**L2**	**CO1**
		Or			
12.	**a.**	Construct a general food supply chain (e.g., for perishable items like fruits and vegetables) with various stages involved and explain each stage in detail.	**10 Marks**	**L2**	**CO1**
13.	**a.**	Using a real-world example, demonstrate how effective distribution can impact supply chain performance.	**10 Marks**	**L3**	**CO2**
		Or			
14.	**a.**	Given specific company requirements, determine the critical factors impacting its supply chain network design.	**10 Marks**	**L3**	**CO2**
15.	**a.**	Given a business scenario, identify appropriate forecasting methods, classify them, and explain how each can be applied effectively.	**10 Marks**	**L3**	**CO3**
		Or			
16.	**a.**	Demand for Smart Home LED bulbs Ltd. at a retail chain is 3,000 units per month. The retailer incurs a fixed ordering, shipping, and handling cost of $5,000 each time an order is placed. Each LED bulb costs the retailer $20, and the holding cost is 10% of the unit cost per year. Determine the optimal order quantity for the retailer and calculate the total annual cost.	**10 Marks**	**L3**	**CO3**
17.	**a.**	Describe a situation where road transportation would be an appropriate mode of transport, and explain how its advantages and disadvantages would influence your choice.	**10 Marks**	**L3**	**CO4**
		Or			
18.	**a.**	Apply your knowledge of transportation modes to recommend rail transport for a company and justify your choice with its advantages and disadvantages.	**10 Marks**	**L3**	**CO4**
19.	**a.**	Given a practical business situation, classify the logistics services needed and explain how each service contributes to supply chain efficiency.	**20 Marks**	**L3**	**CO5**

		Or			
20.	**a.**	How would you apply auctions or negotiations to select the most suitable supplier for a real business requirement? Consider any case and explain in detail.	**20 Marks**	**L3**	**CO5**

21.	**a.**	Using IT-enabled logistics tools (such as RFID or GPS tracking), illustrate how a company can improve visibility and control in its supply chain and implement transportation and handling strategies to minimize spoilage and delays in fruits and vegetables.	**20 Marks**	**L4**	**CO6**
		Or			
22.	**a.**	Analyze how technological interventions can enable the automotive spares supply chain to transition from a traditional push-based model to a pull-based model.	**20 Marks**	**L4**	**CO6**