U.S.N

P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester B.E. - Information Science and Engineering
Semester End Examination; August - 2023
Supply Chain Management

Time: 3 hrs   *Max. Marks: 100*

Course Outcomes

The Students will be able to:
CO1: Build a strategic framework to analyze supply chains.
CO2: Design the supply chain network.
CO3: Plan demand and supply in a supply chain.
CO4: Plan and manage inventories in a supply chain.
CO5: Manage cross-functional drivers in a supply chain.

<u>*Note:*</u> *I) PART - A is compulsory. **Two** marks for each question.*
   *II) PART - B: Answer any <u>**Two**</u> sub questions (from a, b, c) for a Maximum of **18 marks** from each unit.*

Q. No.	Questions	Marks	BLs	COs	POs
	I : PART - A	**10**			
1 a.	List the different cycles in the supply chain process.	2	L1	CO1	PO1
b.	What are the two dimensions in which distribution networks are evaluated?	2	L1	CO2	PO1
c.	What are the factors that contribute to the observed demand?	2	L1	CO3	PO1
d.	How are cycle inventory and lot size related when the demand is steady?	2	L2	CO4	PO1
e.	How is sourcing from diversified vendors going to reduce the risk in a supply chain?	2	L2	CO5	PO1
	II : PART - B	**90**			
	UNIT - I	**18**			
2 a.	Explain the push-pull view of a supply chain.	9	L2	CO1	PO1
b.	Elaborate the supply chain macro process in a firm.	9	L2	CO1	PO1
c.	Discuss the important steps for any organization to achieve strategic fit.	9	L2	CO1	PO1
	UNIT - II	**18**			
3 a.	What are the key factors to consider when selecting a distribution and delivery method for a supply chain? Discuss with suitable example.	9	L2	CO2	PO1
b.	Briefly explain the four phases involved in designing the supply chain network. Emphasize on strategic decision-making process.	9	L2	CO2	PO1
c.	How can gravity model and network optimization models be utilized in the design of supply chain networks?	9	L3	CO2	PO1

	UNIT - III	**18**			
4 a.	What are the different classifications of forecasting methods? Explain any three with suitable examples.	9	L2	CO3	PO1
b.	Explain four steps in the adaptive-forecasting framework.	9	L2	CO3	PO1
c.	What are the four key-factors that influence the timing of a promotion including its impact on demand, cost of holding inventory cost of changing capacity and product margins?	9	L2	CO3	PO1
	UNIT - IV	**18**			
5 a.	In what situations within the supply chain can economics of scale be leverages in replenishment decisions? Explain with suitable examples.	9	L2	CO4	PO1
b.	Describe the following with respect to measuring product availability: i) Product fill rate ii) Order fill rate iii) Cycle Service Level (CSL)	9	L2	CO4	PO1
c.	Discuss the role of IT in inventory management.	9	L2	CO4	PO1
	UNIT - V	**18**			
6 a.	List the major benefits from effective sourcing decisions in a supply chain and discuss.	9	L2	CO5	PO1
b.	Write a note on pricing and revenue management for seasonal demand.	9	L2	CO5	PO1
c.	Discuss the three approaches to risk sharing for increasing profit in supply chain.	9	L2	CO5	PO1

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