Register Number:……..

KUMARAGURU
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B.E DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Seventh Semester

MECHANICAL ENGINEERING

U18MEE0017**:** Logistics and Supply Chain Networks

COURSE OUTCOMES

CO1: Justify significance of a logistics and its relationship to supply chain management

CO2: Identify and resolve contemporary issues in a logistic environment

CO3: Understand basics of supply chain and its overview

CO4: Analyze impact of sourcing decision in supply chain performance

CO5: Build distribution network design by analyzing its influencing factors

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

1.	Recognize the objectives of logistics strategies.	CO1	[K_1]
2.	Translate the meaning of vertical integration?	CO1	[K_2]
3.	List the key to fast cycle logistics.	CO2	[K_1]
4.	Summarize the meaning of a Supply Chain and its aim?	CO2	[K_2]
5.	Recall the flows in a supply chain.	CO3	[K_1]
6.	Cite examples of world class supply chains.	CO3	[K_1]
7.	List the steps in achieving strategic fit.	CO4	[K_1]
8.	Record the types of auctions in practice.	CO4	[K_1]
9.	Review the meaning of economies of scale.	CO5	[K_2]
10.	List the 2 prominent members in a Distribution network.	CO5	[K_4]

Answer any FIVE Questions:-

PART B (5 x 4 = 20 Marks)

(Answer not more than 80 words)

11.	Infer contemporary logistic terms practiced in industries.	CO1	[K_4]

12.	Differentiate B2B and B2C.	CO2	[K4]
13.	Discuss the bullwhip effect.	CO3	[K2]
14.	Correlate interaction graph for cost versus response time in understanding the supply chain.	CO4	[K4]
15.	Report the obstacles in achieving strategic fit.	CO4	[K2]
16.	Deduce the role of Distribution in the supply chain.	CO5	[K3]

Answer any FIVE Questions:-
PART C (5 x 12 = 60 Marks)
(Answer not more than 300 words)

17. A diary firm has 3 plants located in a state with daily milk production of 3 million litres, 12 million litres and 8 million litres at each plant respectively. Each day the firm must fulfil the needs of its 4 Distribution centers, with minimum requirement at each centre as 7 million litres,5 million litres,9 million litres and 2 million litres respectively. Cost of shipping one million litre of the milk from each plant to each Distribution centre is given in the following table in hundreds of Rupees. Estimate the minimal shipment cost. — 12 — CO1 — [K4]

		DISTRIBUTION CENTRES			
		1	**2**	**3**	**4**
PLANTS	**1**	2	3	11	7
	2	12	10	6	1
	3	5	8	15	9

18.	a)	Dramatize the Hierarchy of Logistics Management Decisions.	6	CO2	[K3]
	b)	List the various costs associated in logistics.	6	CO2	[K1]
19.		Debate the major 3 phases of supply chain decisions with suitable cases.	12	CO3	[K4]
20.	a)	Interpret the major supplier assessment factors.	6	CO4	[K4]
	b)	Recognize the importance of effective Sourcing Decisions.	6	CO4	[K4]

21.	a)	Categorize the drivers of Supply Chain Performance.	6	CO4	[K_3]
	b)	Examine the role of contracts in Supply Chain Performance.	6	CO4	[K_3]
22.	a)	Deduce the design options available for distribution networks.	6	CO5	[K_4]
	b)	Pick the factors influencing network design decisions.	6	CO5	[K_2]