Course Code: 23MB4C01

BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE

(AUTONOMOUS)

II –MBA II-Semester Regular/Supplementary Examinations (BR23), May - 2026

Time: 3 hours — ***Supply Chain Management and Analytics(MBA)*** — Max. Marks: 70

PART - A Answer ONE Question from each UNIT (5 x 12 = 60 Marks)
All Questions Carry Equal Marks
PART - B Compulsory (1 x 10 = 10 Marks)

PART -A

	UNIT-I	Marks	CO	BL
1.a)	Examine the framework of Supply chain.	6M	1	K4
b)	List the key driver of supply chain.	6M	1	K1
	OR			
2.a)	Identify the various types of supply chain analytics.	6M	1	K3
b)	State the significance of supply chain analytics.	6M	1	K1

	UNIT-II	Marks	CO	BL
3.a)	Write a note on strategic network planning.	6M	2	K1
b)	State the functions of master production schedule.	6M	2	K1
	OR			
4.a)	Explain the master planning process.	6M	2	K5
b)	Interpret the ATP approach of contemporary APS system.	6M	2	K2

	UNIT-III	Marks	CO	BL
5.a)	Briefly explain different types of scheduling in supply chain.	6M	3	K5
b)	Interpret strategic sourcing process in supply chain management.	6M	3	K2
	OR			
6.a)	Write about travelling sales algorithms in supply chain management	6M	3	K1
b)	Illustrate advanced vehicle routing problem heuristics.	6M	3	K2

	UNIT-IV	Marks	CO	BL
7.a)	State the recent issues in SCM.	6M	4	K1
b)	Summarise the concept of benchmarking and outline its implementation.	6M	4	K2
	OR			
8.a)	Identify the differences between CRM and SCM.	6M	4	K3
b)	Examine the value-added services in supply chain.	6M	4	K4

	UNIT-V	Marks	CO	BL
9.a)	Explain the location decisions in supply chain management.	6M	5	K5
b)	Assess the need for inventory management in supply chain.	6M	5	K5
	OR			
10.a)	Define supply chain project and explain its implementation process.	6M	6	K5
b)	Infer the implementation of SCM in Pharmaceutical company.	6M	6	K2

PART – B

	CASE STUDY	Marks	CO	BL
11	Deere & Company (brand name John Deere) is famed for the manufacture and supply of machinery used in agriculture, construction, and forestry, as well as diesel engines and lawn care equipment. In 2014, Deere & Company was listed 80^{th} in the Fortune 500 America's ranking and was 307^{th} in the 2013 Fortune Global 500 ranking. Deere and Company has a diverse product range, which includes a mix of heavy machinery for the consumer market, and industrial equipment, which is made to order. Retail activity is extremely seasonal, with the majority of sales occurring between March and July. The company was replenishing dealers' inventory weekly, using direct shipment and cross-docking operations from source warehouses located near Deere & Company's manufacturing facilities. This operation was proving too costly and too slow, so the company launched an initiative to achieve a 10% supply chain cost reduction within four years. Consequently, the company undertook a supply chain network-redesign program, resulting in the commissioning of intermediate "merge centers" and optimization of cross-dock terminal locations. Deere & Company also began consolidating shipments and using break-bulk terminals during the seasonal peak. The company also increased its use of third-party logistics providers and effectively created a network that could be optimized tactically at any given point in time. Questions: (a) Identify the challenges faced by Deere & Company? (b) What are the effective supply chain analytics to be used develop the path to Cost reduction. (c) Suggest supply chain cost management techniques for decreasing inventory costs, lead time and transportation costs.	10M	4	5

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