

**Code No: MB1941/R19**

**MBA IV Semester Regular/Supplementary Examinations, May -2024**

**SUPPLY CHAIN MANAGEMENT AND ANALYTICS**

**Time: 3 Hours**

**Max. Marks: 75**

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*Answer Any FIVE Questions, one from each unit  
Question No. 11 is Compulsory*

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**UNIT-I**

1. a) Define supply chain and explain the key parts of supply chain. [6M]  
b) Explain the conceptual model of a basic supply chain [6M]

**(OR)**

2. a) Briefly explain various views on supply chain management. [6M]  
b) Explain the various types of supply chain analytics? [6M]

**UNIT-II**

3. a) Describe the methods of supply chain analysis. [6M]  
b) Discuss the three main goals of supply chain planning. [6M]

**(OR)**

4. a) Elaborate the benefits of strategic network planning. [6M]  
b) What factors are to be considered while designing a supply chain network model? [6M]

**UNIT-III**

5. a) Describe the dynamic programming approach to the set cover problem. [6M]  
b) Explain the importance of Traveling Salesman Problem. [6M]

**(OR)**

6. a) What is heuristic method of route optimization? [6M]  
b) Give a real-life example of the vehicle routing problem related to SCM. [6M]

**UNIT-IV**

7. a) What is fuzzy logic technique and what are the main operations of fuzzy logic? [6M]  
b) What are the applications of fuzzy logic system in SCM? [6M]

**(OR)**

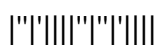
8. a) Explain the role Information Technology in supply chain management. [6M]  
b) Compare and contrast CRM and SCM. [6M]

**UNIT-V**

9. a) What is the significance of inventory management in supply chain? Briefly explain. [6M]  
b) What are the major types of inventory control systems in SCM? [6M]

**(OR)**

10. a) Explain the supply chain management process in the Food & Beverages Companies. [6M]  
b) What are different types of supply chain network design decisions? [6M]



11.

**CASE STUDY**

[15M]

In this lean operations world, in an effort to lower handling costs, speed delivery and reduce inventory, retailers are forcing their suppliers to do more and more in the way of preparing their merchandise for their cross-docking warehouses, shipment to specific stores and their shelf presentation. Your company, a small manufacturer of aquarium decorations, is in a tough position. First, Mega-Mart wanted you to develop bar-code technology, then special packaging, then small individual shipments bar coded for each store. (This way when the merchandise hits the warehouse it is cross-docked immediately to the correct truck and store and is ready for shelf placement.) And, now Mega-Mart wants you to develop RFID-immediately. Mega-Mart has made it clear that suppliers that can't keep up with the technology will be dropped. Earlier, when you didn't have the expertise for bar codes, you had to borrow money and hire an outside firm to do the development, purchase the technology and train your shipping clerk. Then, meeting the special packaging requirement drove you into a loss for several months, resulting in a loss for last year. Now, it appears that the RFID request is impossible. Your business, under the best conditions, is marginally profitable, and the bank may not be willing to bail you out again. Over the years, Mega-Mart has slowly become your major customer and without them, you are probably out of business.

**Question:**

- i. What are the ethical issues and what do you do?

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