

MBPC3036 INVENTORY & LOGISTIC MANAGEMENT

Course Objective:

To understand the principles of logistics management

To understand the logistics role in the economy and the organization

Module-I

Introduction to Inventory Management – Its types and functionality, Selective Inventory Control, Inventory Costs and Inventory Replenishment, Production, Planning, Control and Forecasting, Materials Requirement Planning and Spare Parts Inventory, Stores Management, Accounting for Inventory and JIT (Just – In – Time). Demand pattern analysis: Seasonal variations, trend analysis, cyclical patterns, irregular demand management- Digital inventory tracking: Barcode systems, cycle counting procedures, perpetual inventory systems

Module-II

Logistics management and Supply Chain management - Definition, Evolution, Importance. The concepts of logistics. Logistics relationships. Functional applications – HR, Marketing, Operations, Finance, IT. Logistics Organization - Logistics in different industries.

Logistics Activities: – functions, objectives, solution. Customer Service, Warehousing and Material Storage, Material Handling, order processing, information handling and procurement Transportation and Packaging. Third-party and fourth-party logistics - Reverse Logistics - Global Logistics.

Module-III

Modelling logistics systems - Simulation of logistic systems - Dimensions of Logistics & SCM – The Macro perspective and the macro dimension – Logistic system analysis strategy, Logistical Operations Integration, Customer service – Supply Chain Relationships- Customer segmentation strategies: Service level differentiation, customized logistics solutions, Omnichannel fulfillment: Click-and-collect, ship-from-store, endless aisle capabilities

Course Outcome:

CO1: Define key concepts in inventory, logistics, and supply chain management, including their functions and types.

CO2: Identify various inventory control methods, replenishment techniques, and digital tracking systems.

CO3: Describe the roles and relationships of logistics functions across different business domains and industries.

CO4: Explain basic logistics system models, customer service strategies, and omnichannel fulfillment concepts.

CO5: Analyse demand patterns, logistics activities, and inventory data to support operational decision-making.

Books:

1. Bower sox. Supply Chain Logistics Management: Mc Graw Hill.
2. Bowersox,. Logistical Management: Mc-Graw Hill,
3. Reguram G, Rangaraj N. Logistics and Supply Chain Management Cases and Concepts: Macmillan India Ltd., New Delhi.
4. Sahay B. S. Supply Chain Management for Global Competitiveness: Macmillan India Ltd., New Delhi.
5. Production & Operations Management, Prof. Mahadeven ,IIM Bangalore
6. Achieving effective inventory management by John Schreibfeder