

parallel systems; A theoretic model of distributed information retrieval; Web search; Result fusion; Peer-to-Peer information systems; Other architectures.

UNIT – 8

7 Hours

Multimedia IR: Introduction; data modeling; Query languages; Spatial access methods; A general multimedia indexing approach; One-dimensional time series; Two-dimensional color images; Automatic picture extraction.

Text Books:

1. David A. Grossman, Ophir Frieder: Information Retrieval Algorithms and Heuristics, 2nd Edition, Springer, 2004. (Chapters 1, 2, 3, 4, 5, 6, 7, 8)
2. Ricardo Baeza-Yates, Berthier Ribeiro-Neto: Modern Information Retrieval, Pearson Education, 1999 (Chapters 8, 11, 12)

Reference Books:

1. William B. Frakes, Ricardo Baeza-Yates (Editors): Information Retrieval Data Structures & Algorithms, Pearson Education, 1992.

SUPPLY CHAIN MANAGEMENT

Subject Code: 10IS843

I.A. Marks: 25

Hours/Week: 4

Exam Marks: 100

Total Hours: 52

Exam Hours: 3

PART – A

UNIT – 1

6 Hours

Introduction to Supply Chain, Performance of Supply Chain: What is a Supply Chain; Decision phases in a supply Chain; Process view of a Supply Chain; The importance of Supply Chain Flows; Examples of Supply Chains. Competitive and Supply Chain strategies; Achieving strategic fit; Expanding strategic scope.

UNIT – 2

6 Hours

Supply Chain drivers and Obstacles, Designing Distribution Network: Drivers of Supply Chain Performance; A framework for structuring drivers; Facilities, Inventory, Transportation, and Information; Obstacles to achieve strategic fit

The role of distribution in the Supply Chain; factors influencing distribution network design; Design options for a distribution network; the value of distributors in the Supply Chain; Distribution Networks in practice.

UNIT – 3**7 Hours**

Network Design: The role of network design in the Supply Chain; Factors influencing Network design Decisions; A framework for Network Design Decisions; Models for facility Location and Capacity Allocation; making Network Design decisions in practice.

The impact of uncertainty on Network design; Discounted cash flow analysis; Representations of uncertainty; Evaluating Network Design decisions using Decision Trees; Making Supply Chain decisions under uncertainty in practice.

UNIT – 4**7 Hours**

Demand Forecasting, Aggregate Planning: The role of forecasting in a Supply Chain; Characteristics of forecast; Components of a forecast and forecasting methods; Basic approach of Demand forecasting; Time series forecasting methods; Measures of forecast errors; The role of aggregate planning in a supply Chain; The aggregate planning problem; Aggregate planning strategies.

PART – B**UNIT – 5****6 Hours**

Inventory Management: The role of cycle inventory in a supply Chain; Economies of scale to exploit fixed costs, quantity discounts; Short-term discounting; Managing multi-echelon cycle inventory; Estimating cycle inventory related costs in practice.

UNIT – 6**7 Hours**

Transportation: The role of transportation in the Supply Chain; Factors affecting transportation decisions; Modes of transportation and their performance characteristics; Design options for a transportation network; Trade-offs in transportation design; Tailored transportation; Routing and scheduling in transportation; Making transportation decisions in practice.

UNIT – 7**7 Hours**

Pricing and Revenue Management, Coordination : The role of revenue management in Supply Chain; revenue management for multiple customer segments, perishable assets, seasonal demand, and bulk and spot contracts; Using revenue management in practice

Lack of Supply Chain coordination and Bullwhip effect; Effect of lack of coordination on performance; Obstacles to coordination in the Supply Chain; managerial levers to achieve coordination; Building strategic partnerships and trust within a supply Chain; Achieving coordination in practice.

UNIT – 8**6 Hours**

IT, Internet and Supply Chain: The role of IT in the Supply Chain; The Supply Chain IT framework; CRM; Internal SCM; Supplier Relationship Management; The transaction management foundation; The future if IT in SCM; Supply Chain It in practice.

The role of E-Business in Supply Chain; The E-Business framework; The B2B addition to the E-Business framework; E-Business in practice

Text Books:

1. Sunil Chopra, Pter Meindl: Supply Chain Management Strategy, Planning, and Operation, 3rd Edition, Pearson Education, 2007.
(Chapters 1, 2, 4, 4, 5, 6, 7, 8.1 to 8.3, 10, 14, 15, 16, 17, 18)

Reference Books:

1. David Simchi-Levi, Philp Kaminky, Edith Simchi-Levi: Designing and Managing The Supply Chain Concepts, Strategies & Case Studies, 3rd Edition, Tata McGraw Hill, 2003.
2. R.P. Mohanty, S.G. Deshmukh: Supply Chain Management Theories & Practices, Bizmantra, 2005.
3. Rahul V. Altekar: Supply Chain Management Concepts and Cases, PHI, 2005.
4. M Martin Christopher: Logistics and Supply Chain Management, 2nd Edition, Pearson Education, 1998.

SERVICES ORIENTED ARCHITECTURE**Subject Code: 10IS844****I.A. Marks: 25****Hours/Week: 4****Exam Marks: 100****Total Hours: 52****Exam Hours: 3****PART – A****UNIT 1****7 Hours**

Introduction o SOA, Evolution of SOA: Fundamental SOA; Common Characteristics of contemporary SOA; Common tangible benefits of SOA;An SOA timeline (from XML to Web services to SOA); The continuing evolution of SOA (Standards organizations and Contributing vendors); The roots of SOA (comparing SOA to Past architectures).

UNIT 2**6 Hours**

Web Services and Primitive SOA : The Web services framework; Services (as Web services); Service descriptions (with WSDL); Messaging (with SOAP).