

## INFORMATION RETRIEVAL

**Subject Code: 10IS842**  
**Hours/Week: 4**  
**Total Hours: 52**

**I.A. Marks: 25**  
**Exam Marks: 100**  
**Exam Hours: 3**

### PART – A

**UNIT – 1** **7 Hours**  
**Introduction, Retrieval Strategies – 1:** Introduction; Retrieval Strategies: Vector Space Model; Probabilistic Retrieval strategies

**UNIT – 2** **6 Hours**  
**Retrieval Strategies – 2:** Some More Retrieval Strategies: Language Models; Inference Networks; Extended Boolean Retrieval; Latent Semantic Indexing; Neural Networks; Genetic Algorithms; Fuzzy Set Retrieval.

**UNIT – 3** **7 Hours**  
**Retrieval Utilities:** Relevance feedback; Clustering; Passage-Based Retrieval; N-Grams; Regression Analysis; Thesauri; Semantic Networks; Parsing.

**UNIT – 4** **6 Hours**  
**Indexing and Searching:** Introduction; Inverted Files; Other indices for text; Boolean queries; Sequential searching; Pattern matching; Structural queries; Compression.

### PART – B

**UNIT – 5** **6 Hours**  
**Cross-Language Information Retrieval and Efficiency:** Introduction; Crossing the language barrier; Cross-Language retrieval strategies; Cross language utilities. Duplicate Document Detection.

**UNIT – 6** **6 Hours**  
**Integrating Structured Data and Text:** Review of the relational model; A historical progression; Information retrieval as a relational application; Semi-structured search using a relational schema; Multi-dimensional data model.

**UNIT – 7** **7 Hours**  
**Parallel Information Retrieval, Distributed Information Retrieval:** Parallel text scanning; Parallel indexing; Clustering and classification; Large

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, 2<sup>nd</sup> 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.