

**FACULTY OF INFORMATICS**  
**M.C.A. (3 Years Course) III- Semester (CBCS) (Backlog) (New) Examination,**  
**October/November 2023**

**Subject: Information Retrieval Systems**

**Time: 3 Hours**

**Max. Marks: 70**

**Note: I. Answer one question from each unit. All questions carry equal marks.**

**II. Missing data, if any, may be suitably assumed.**

**Unit – I**

1. (a) Give an example of similarity coefficients.  
(b) Elaborate the idea for training data for probabilistic retrieval.  
**(OR)**
2. (a) Explain how to incorporate term frequency.  
(b) Describe term to document mapping with an example.

**Unit-II**

3. (a) Elucidate the relevance feedback in the vector space model.  
(b) Write about clustering without a precomputed matrix.  
**(OR)**
4. (a) Write the steps for logistic regression.  
(b) Explain using a thesauri to expand a query.

**Unit-III**

5. (a) Explain R-distance method.  
(b) Write notes on complex phrases.  
**(OR)**
6. (a) Discuss how to translate a document.  
(b) Describe the language models for CLIR.

**Unit-IV**

7. (a) Write the steps to build an inverted index.  
(b) Give an overview of signature files.  
**(OR)**
8. (a) Explain how to find similar duplicates through shingles.  
(b) Give an account of vector space simplifications.

**Unit-V**

9. (a) Describe bibliographic search with unchanged SQL.  
(b) Elucidate the proximity searches.  
**(OR)**
10. (a) Elaborate distributed information retrieval system model.  
(b) Discuss high precision search method.