

Code No: 825AD

**R15m****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA V Semester Examinations, April/May - 2019****INFORMATION RETRIEVAL SYSTEMS****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A****5 × 5 Marks = 25**

- 1.a) Explain with an example the concept of *Biword Indexes*. [5]
- b) What is Inverse document frequency? [5]
- c) What is Probabilistic Information Retrieval? [5]
- d) What is Hierarchical Clustering? [5]
- e) Write a brief note on The Web Graph. [5]

**PART - B****5 × 10 Marks = 50**

2. Explain in detail about Distributed indexing. [10]
- OR**
- 3.a) Write a detailed note on Dynamic Indexing.
- b) Explain in detail about Dictionary compression. [5+5]
4. Explain in detail about following Components of an information retrieval system:  
a) Relevance feedback                      b) Query-term proximity. [5+5]
- OR**
- 5.a) Explain in detail about the Evaluation of Unranked Retrieval Sets.
- b) Explain how Assessing relevance is done for evaluating a system. [5+5]
6. Write a detailed note on vector space model for XML retrieval. [10]
- OR**
- 7.a) Explain in detail about the Text Classification problem.
- b) Write a detailed note on Rocchio classification. [5+5]
- 8.a) Explain various components used in Evaluation of clustering.
- b) Explain in detail about Single-link and complete-link clustering. [5+5]
- OR**
- 9.a) Write a detailed note on Low-rank approximations in Matrix Decompositions.
- b) Explain in detail about Group-average agglomerative clustering. [5+5]
10. What is a Web Crawler? Explain its architecture with a neat diagram. [10]
- OR**
- 11.a) Write a detailed note on Connectivity servers required by Web Search Engines.
- b) Write a detailed note on Hubs and Authorities. [5+5]