Code No: **R42059**   **R10**   Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016
INFORMATION RETRIEVAL SYSTEMS
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks
*****

1 a) Describe the functional overview of information retrieval system.   [8]
   b) Write the similarities between information retrieval systems and data warehouses.   [7]

2 a) Explain the miscellaneous capabilities of information retrieval systems.   [8]
   b) Discuss the process of information extraction.   [7]

3 a) What are the data files used to control and limit the stemming process by k-stem system? Explain.   [8]
   b) Write the advantages of N-grams. How N-grams is used in spelling error detection and correction?   [7]

4 a) Explain the techniques for creation of index when the terms of original item are used as basis of index process.   [10]
   b) Explain the role of automatic indexing in Natural languages.   [5]

5 a) With an example explain the steps in manual clustering process.   [8]
   b) Explain about statistical thesauri and theoretically thesauri.   [7]

6 a) How the similarity measures are applied to statistical systems? Explain.   [8]
   b) What are the six key characteristics of intelligent agents used in the searching of Internet and hypertext?   [7]

7 a) Describe what cognitive engineering principles are being used in the Information visualization techniques.   [8]
   b) What are the main aspects of human visualization process? Explain.   [7]

8 a) How finite state Automata is used for hardware and software searchers?   [8]
   b) Explain Knuth – Pratt – Morris algorithm.   [7]

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Code No: **R42059**   **R10**   Set No. 2

IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016
INFORMATION RETRIEVAL SYSTEMS
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks
*****

1 a) Discuss how Databases can be used as a source of Information Retrieval Systems.   [8]
   b) Describe about various standards used in Information Retrieval Systems.   [7]

2 a) How to define the measures with the search process?   [8]
   b) Explain about public file indexer.   [7]

3 a) Explain the importance of stemming algorithm.   [8]
   b) Describe briefly Hypertext data structure.   [7]

4 a) Explain about classes of Automatic Indexing.   [8]
   b) What is linkage? Explain pre-coordination and post-coordination.   [7]

5 a) What are the approaches used to account for different document lengths while determining the value of term frequency?   [9]
   b) What is the purpose of Thesaurus? Explain what it contains.   [6]

6 a) What are the processing steps used in automatic relevance feed back to enhance user query?   [8]
   b) Discuss the role of weighted searches in Boolean systems.   [7]

7 a) Explain the *Perspective Wall* information visualization technology.   [8]
   b) Describe the need for information visualization. Under what circumstances is information visualization is not useful? Quote an example.   [7]

8 a) Discuss the concept of text search with relevant examples.   [8]
   b) Explain the Boyer-Moore text search algorithm with an example.   [7]

Code No: **R42059**   **R10**   Set No. 3

IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016
INFORMATION RETRIEVAL SYSTEMS
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks
*****

1 a) What were the reasons for origination of Information Retrieval Systems?   [8]

   b) Write brief notes on digital libraries and data warehouse.   [7]

2 a) What is a Browse capability? Explain about various browse capabilities.   [9]

   b) What portions of an item should be indexed? Explain.   [6]

3 a) Explain in detail about "Inverted File Structure".   [8]

   b) What are the conclusions given by Frakes on stemming?   [7]

4 a) Discuss about Pre-coordination and Linkages in the Indexing Process.   [8]

   b) Explain the concept of automatic indexing and describe various indexing
       processes.   [7]

5 a) Discuss the techniques to create a thesaurus cluster.   [8]

   b) Explain about automatic term clustering.   [7]

6 a) What is ranking? Explain about the relevance score.   [7]

   b) Why does the numerator remain basically the same in all of the similarity
       measures? Discuss other possible approaches and their impact on the formulas. [8]

7 a) Describe briefly the terms Cognition and Perception.   [8]

   b) Write about information visualization techniques that are available to access
       the Internet.   [7]

8 a) Explain the Aho-Corasick search algorithm with an example.   [8]

   b) What is TREC result and how it can be used in information system evaluation? [7]

Code No: **R42059**   **R10**   Set No. 4

IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016
INFORMATION RETRIEVAL SYSTEMS
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks
*****

1 a) What are the objectives of information retrieval systems?   [8]

  b) Explain the differences between Information Retrieval Systems and DBMS.   [7]

2 a) Explain the weighting process of index terms.   [9]

  b) Write a brief note on Information Retrieval System capabilities.   [6]

3 a) Which stemming technique is used by INQUERY system? Explain.   [8]

  b) Describe briefly Hypertext data structure.   [7]

4 a) What information is available in a natural language based indexing that is not available in normal statistical systems? What effect does this have on the search process?   [8]

  b) Describe the Concept Indexing with an example.   [7]

5 a) Discuss how clustering effects the precision and recall.   [6]

  b) Explain how to determine the clusters using Clique and Single Link techniques with an example.   [9]

6 a) Explain the use of neural networks for the learning function.   [7]

  b) Why is relevance feedback required in User Search Techniques? Explain.   [8]

7 a) Explain the *Cone Tree* information visualization technology.   [8]

  b) What are the set of rules postulated by Gestalt psychologists for visualization?   [7]

8 a) Write the criteria used for GESCAN and Fast Data Finder hardware text search machines? Why was this approach used over others?   [10]

  b) What are the two types of retrieval examined at TREC?   [5]