Code No: M1221/R07

Set No. 1

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
INFORMATION RETRIEVAL SYSTEMS
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. Explain the following:-

   (a) Selective Dissemination of Information

   (b) Index Data search

   (c) Document database search. [5+6+5]

2. Discuss the functions of an Information Retrieval System. [16]

3. (a) Explain the concept of catalogs.

   (b) What is information extraction? Explain its concepts. [8+8]

4. (a) Explain about stemming process.

   (b) Explain porter stemming algorithm. [8+8]

5. Explain the term frequency algorithm with a suitable example. [16]

6. Compare and contrast Manual Clustering and Automatic Term Clustering. [16]

7. Discuss about selective dissemination information search techniques with examples.
   [16]

8. Discuss in detail the measurement example of TREC including its results. [16]

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Code No: M1221/R07

Set No. 2

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
INFORMATION RETRIEVAL SYSTEMS
(Information Technology)

Time: 3 hours   Max Marks: 80

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

1. (a) Differentiate Private Index file and DBMS.
   (b) Explain about objectives of Information Retrieval System.   [8+8]

2. (a) What is a contiguous word phrase? Explain its concept.
   (b) Write a brief note on Information Retrieval System capabilities.   [8+8]

3. (a) Briefly explain about Automatic Indexing.
   (b) Explain about indexing and describe the various indexing processes. [8+8]

4. (a) What are the data files used in k-stem system?
   (b) Describe Dictionary look-up stemmers.   [8+8]

5. Describe in detail the issues and concepts involved in Hypertext Linkages. [16]

6. Compare and contrast Manual Clustering and Automatic Term Clustering. [16]

7. Write short notes on:
   (a) Similarity Measures and Ranking.
   (b) Hidden Markov Models Techniques.   [8+8]

8. Explain about importance of hardware in text search algorithms.   [16]

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Code No: M1221/R07

Set No. 3

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
INFORMATION RETRIEVAL SYSTEMS
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. Explain the following:-

   (a) Selective Dissemination of Information

   (b) Index Data search

   (c) Document database search.   [5+6+5]

2. What are the similarities and differences between the use of fuzzy searches and term masking? What are the potential for each to introduce errors?   [16]

3. Explain the concept of automatic indexing and describe various indexing processes.
                                                                      [16]

4. Describe the similarities and differences between stemming algorithms and n-grams. Describe how they affect precision and recall.   [16]

5. Explain in detail about the following:

   (a) Simple term Frequency Algorithm.

   (b) Inverse Document Frequency.   [8+8]

6. (a) What are the two types of clustering?

   (b) Discuss a variety of specific techniques to create a thesaurus cluster.   [6+10]

7. (a) Discuss about relevance feed back technique.

   (b) How do you expect that relevance feed back using only positive judgments will affect the precision and recall of an information system? Explain.   [8+8]

8. (a) How finite state Automata is used for hardware and software searchers?

   (b) Construct finite state automata for each of the following set of terms:
       HE, SHE, HER, HERE, THERE, SHEAR.
       Be sure to define the three sets I, S, P along with providing the state drawing.
                                                                      [8+8]

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Code No: M1221/R07

Set No. 4

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
INFORMATION RETRIEVAL SYSTEMS
(Information Technology)

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. Write short notes on:

   (a) Private Index file

   (b) Digital library

   (c) Data warehouse

   (d) Information Retrieval System.   [4×4=16]

2. Describe about various standards used in Information Retrieval Systems.   [16]

3. (a) What is an Indexing process? Explain its concept.

   (b) Explain about indexing by concept.   [8+8]

4. (a) Describe briefly about the concepts of Signature File Structure.

   (b) Describe briefly about the concepts of Porter Stemming Algorithm.   [8+8]

5. (a) What is the goal of Natural language processing? Explain.

   (b) 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+8]

6. List out the various techniques in Automatic Term Clustering. Explain.   [16]

7. (a) Discuss about relevance feed back technique.

   (b) How do you expect that relevance feed back using only positive judgments will
       affect the precision and recall of an information system? Explain.   [8+8]

8. Explain about importance of hardware in text search algorithms.   [16]

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