[5254]-192

B.E. (Information Technology)
INFORMATION RETRIEVAL
(2008 Pattern)

Time : 3 Hours]   *[Max. Marks : 100*

Instructions to the candidates:

1) Answer Q1 or Q2, Q3 or Q4,Q5 or Q6, Q7 or Q8,Q9 or Q1O, Q11 or Q12.

2) Answer to the two sections should be written in separate books.

3) Neat diagrams must be drawn wherever necessary.

4) Figures to the right side indicate full marks.

5) Assume Suitable data if necessary.

SECTION - I

Q1) a) With the help of block diagram explain Information Retrieval System. In your words explain what do you mean by Information Retrieval?   **[8]**

b) Explain Hierarchic clustering Algorithm? Comment if Hierarchic methods are suitable for document clustering?   **[8]**

OR

Q2) a) What are different constituents of Classification Methods and with proper example explain relations that exist among them   **[8]**

b) Define Clustering? Explain in detail various parameters used while designing any clustering algorithm   **[8]**

Q3) a) Explain Suffix Array with the help of diagram. What do you mean by signature file? How it can be constructed.   **[8]**

b) Explain Cellular multi-lists with proper example   **[8]**

OR

Q4) a) What do you mean by Coordination level?   **[6]**

For the following Ki list if the set of documents are:

K1-list: Dl, D2, D3, D4

K2-List: Dl, D2

K3-List: Dl, D2, D3

K4-List: Dl

Then for query **Q = K1 AND K2 AND K3** find out the answer

b) Write Short Notes on : i) Inverted Index File ii) Index-sequential File**[10]**

Q5) a) Explain the terms Precision and Recall **[6]**
Assume the following:
- A database contains 80 records on a particular topic
- A search was conducted on that topic and 60 records were retrieved.
- Of the 60 records retrieved, 45 were relevant.
Calculate the precision and recall scores for the search.

b) State & Explain User Oriented Measures with the help of Venn Diagram **[6]**

c) What are digital Libraries **[6]**

<div align="center">OR</div>

Q6) a) Explain TREC document collection with tasks and Evaluation measures at TREC conferences **[8]**

b) Explain Harmonic Mean & E Measure **[6]**

c) Write Note on: OPAC **[4]**

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SECTION - II

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Q7) a) Describe Ontology in Information Retrieval and its use? **[8]**

b) What is Parallel Computing? Explain taxonomy of parallel architectures **[8]**

<div align="center">OR</div>

Q8) a) With respect to various aspects discuss MIMD Architectures. **[8]**

b) Define Ontology? Explain in detail reasons to develop Ontology. **[8]**

Q9) a) What is the role of Multimedia in Commercial Database Management System? **[8]**

b) Discuss MULTOS in short. **[8]**

<div align="center">OR</div>

Q10) a) Write note on Generic Multimedia Indexing Approach (GEMINI)? **[8]**

b) Discuss SQL3 in short. **[8]**

*Q11)*a) Discuss the centralized architecture of the search engine; Enlist the drawbacks of Harvest architecture. **[10]**

b) What do you mean by Web crawler and briefly explain the working of web crawler **[8]**

OR

*Q12)*a) Write short notes on: Challenges in web search **[6]**

b) What is Web Usage mining **[6]**

c) Explain Meta searches with example **[6]**

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