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B.E (Information Technology)

INFORMATION RETRIEVAL

(2003 Course)

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

Instructions to the candidates:

1) ***Answer Question 1 or 2, 3 or 4, and 5 or 6 from section - I and Question 7 or 8, 9 or 10, and 11 or 12 from section - II***
2) ***Answers to the two sections should be written in separate books.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Assume suitable data, if necessary.***

SECTION - I

Q1) a) Explain with the help of block diagram, typical IR system. Describe the needs and concepts of information retrieval. [8]

b) Explain Single link algorithm. [8]

OR

Q2) a) You are developing a text processing system for use in an automatic retrieval system. Explain the following parts: [8]

i) Removal of high frequency words.
ii) Suffix stripping.
iii) Detecting equivalent stems.

b) What is cluster hypothesis? Explain graph theoretic method with an example. [8]

Q3) a) Explain Signature File with example. [8]

b) Explain the Fuzzy Set Model. [8]

OR

Q4) a) Explain the two ways of serial search retrieval using matching functions. [8]

b) Explain the ring structures. [8]

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Q5) a) Explain different evaluation measures for information retrieval systems. [10]

b) Explain Information Access Process. [8]

OR

Q6) a) Explain TREC document collection, tasks and Evaluation measures at TREC Conferences. [10]

b) What are the different starting points for search interfaces. [8]

SECTION - II

Q7) a) Discuss the following points with respect to Digital Libraries: [8]

i) DL architecture issues.

ii) Document models, representation and access.

iii) Prototypes, projects and interface standards.

b) Write note on: online retrieval system. [8]

OR

Q8) a) Describe issues regarding emerging information retrieval approaches and related technologies. [8]

b) List and explain working of various search engines and their challenges. [8]

Q9) a) Explain the automatic Feature Extraction. [8]

b) Explain how images can be retrieved using image content as the basis for retrieval. [8]

OR

*Q10)*a) Explain the One dimensional time series. [8]

b) Write short note on: MULTOS. [8]

*Q11)*a) Describe query processing in distributed IR systems. [10]

b) Write a note on : Characterizing the Web. [8]

*Q12)*a) Describe the MIMD architecture with respect to parallel IR. [10]

b) Explain Meta Searches with examples. [8]