Total No. of Questions : 12]

SEAT No :

P2821

[Total No. of Pages :2

[5154]-202
B.E.(I.T)
INFORMATION RETRIEVAL
(2008 Course) (Semester-II) (414449)

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 Q10, Q11or 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) State Cluster Hypothesis.Explain Graph Theoretic approach for clustering. **[8]**

b) Explain Exhaustively and Specificity with respect to Index term weighting. **[8]**

c) Define Cluster Representative. **[2]**

OR

Q2) a) Explain Luhn's Idea and conflation Algorithm in detail and explain in short steps to conflate the following words: Here, Hearby, Hereafter, Herein, Hereupon. **[12]**

b) Explain the steps taken to form clusters using single pass Algorithm. **[6]**

Q3) a) Explain Boolean Model in detail. **[6]**

b) Explain in detail Cellular Multilists. **[6]**

c) How Query operation can be modified for fast retrieval. **[4]**

OR

Q4) a) Explain sequential and Index-sequential file structures with their advantages and disadvantages. .**[8]**

b) Explain Boolean search in detail. What do you mean by co-ordination Level? Explain with example. **[8]**

Q5) a) Describe the various challenges for the effective deployment of Digital Libraries. **[8]**

b) Explain E-measure and Harmonic Mean. **[8]**

OR

P.T.O.

Q6) a) Explain :R-precision, precision Histograms with proper example. **[10]**

b) What is the significance of Retrieval performance Evaluation.Consider set of relevant documents to the query q as $\{d_1, d_3, d_5, d_2, d_4, d_6, d_{12}, d_{24}, d_{36}, d_{48},\}$.A new retrieval algorithm returns the following answer $\{d_{48}, d_{41}, d_6, d_{61}, d_{67}, d_{511}, d_{54}, d_{57}, d_2, d_{28},, d_{21}, d_{250}, d_{211}, d_1\}$Evaluate retrieval performance of the algorithm. **[6]**

SECTION-II

Q7) a) Compare parallel and Distributed IR. **[8]**

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

OR

Q8) a) Explain ontology Life cycle. **[8]**

b) Explain distributed IRwith the help source selection and Query processing. **[8]**

Q9) a) Discuss steps on which Data Retrieval relies in Multimedia IR **[8]**

b) Explain Uncertainty, proximity and Weights in Query Expressions. **[8]**

OR

Q10)a) What do you understand by Spatial Access Method? State drawbacks of sequential scanning. **[8]**

b) How is image analysis and image access accomplished in MULTOS data model. **[8]**

Q11)a) What are different forms of searching the web. **[4]**

b) What are web Robots?What is its role in web search engines. **[6]**

c) Enlist the search Engines? On what parameters they can be compared.**[8]**

OR

Q12) a) State difference between search Engine and web Directories. **[6]**

b) Write short Notes on following. **[12]**

i) Web mining

ii) Economic Legal Issues with web Agents

iii) Collaborative Filtering

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