SEAT No. :

PA-945

[5927]-391

B. E. (Information Technology)
INFORMATION AND STORAGE RETRIEVAL
(2019 Pattern) (Semester - VII) (414441)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*
4) *Assume suitable data, if necessary.*

Q1) a) In information retrieval, if q is the information request and a set of relevant documents for query q is Rq = (d3, d5, d9, d25, d39, d44, d50, d70, d80, d120). Consider new retrieval algorithm has been designed and has been evaluated for information request q returns, ranking of the documents in the answer set is as follows. **[6]**

1)	<u>d120</u>	9)	d143
2)	d84	10)	<u>d25</u>
3)	<u>d50</u>	11)	d38
4)	d6	12)	d48
5)	d8	13)	d230
6)	<u>d9</u>	14)	d113
7)	d58	15)	<u>d3</u>
8)	d129		

The documents that are relevant to the query q are underlined. Calculate precision and recall for the documents that are relevant to the query q.

b) What are measures used to evaluate system performance? **[6]**

c) What are various techniques used to specify query in information visualization? **[6]**

OR

Q2) a) What are User oriented measures used in performance evaluation of IR systems. **[6]**

b) Define Precision and Recall. Give example of each and justify its use in evaluating IR system. **[6]**

c) What is relevance Judgement? Explain the term group relevance judgements, pseudo relevance feedback. **[6]**

Q3) a) What is distributed IR? Explain the architecture of distributed IR in detail. **[9]**

b) What is Collection Partitioning with respect to distributed IR Explain in detail. **[8]**

OR

Q4) a) Explain in details the working of MULTOS data model. **[9]**

b) What is Query Languages with respect to multimedia IR Explain it in detail. **[8]**

Q5) a) Write a short note on Searching the Web. **[6]**

b) Explain Crawler-Indexer Architecture with neat diagram. **[6]**

c) What is role of crawler in web searching? Explain the strategies used by the web crawler. **[6]**

OR

Q6) a) What is hyperlink? Explain structure of hyperlink and also explain searching using hyperlinks. **[6]**

b) Write a note on characterizing the web. **[6]**

c) Explain Web Scrapping with suitable example. **[6]**

Q7) a) Define Recommender system? Explain in brief Collaborative Filtering. **[9]**

b) Explain semantic web in details. **[8]**

OR

Q8) a) Explain difference between Text-centric and Data-centric XML retrieval. **[9]**

b) Explain in detail Content Based Recommendation of Documents. **[8]**

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