Total No. of Questions : 10]	SEAT No. :
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[4959]-1138

## B.E.(Information Technology) c: INFORMATION STORAGE AND RETRIEVAL

(2012 Course) (Semester-II)(Elective-III) (414463)

Time : 2½ Hours] [Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary.
- **Q1)** a) Explain Luhn's idea in details.

[5]

b) What is clustering? Explain the use of clustering in IR.

[5]

OR

Q2) Clusters the documents using single pass clustering algorithm for the following example. Threshold value is 10[10]

	Terms in document						
	T1	T2	Т3	T4	T5		
Doc 1	1	2	0	0	1		
Doc 2	3	1	2	3	0		
Doc 3	3	0	0	0	1		
Doc 4	2	1	0	3	0		
Doc 5	2	2	1	5	1		

**Q3)** a) Explain Boolean model in detail

[5]

b) Give the difference between suffix array and suffix tree.

[5]

OR

Explain the term precision and recall and calculate the same for the **Q4)** a) following example [5] A set of relevant documents for query  $q = \{d3,d7,d8,d11,d14,d19,d23,d25\}$ A new retrieval algorithm returns following answer set  $= \{d1,d2,d3,d7,d9,d10,d14,d20,d23,d24,d25\}$ Explain the terms Harmonic mean, E measure, R precision, Precision b) histogram [5] Explain GEMINI approach for multimedia IR. [9] **Q5**) a) b) How are queries processed in distributed IR. [9] OR **Q6)** a) Write a note on MULTOS [9] b) Describe multimedia data support in commercial DBMS. [9] **Q7**) a) Discuss challenges involved in web searching. [8] Explain crawler indexer architecture in details. b) [8] OR *Q8*) a) Write a note on characterizing the web [8] b) What are meta crawlers? Explain with suitable example [8] **Q9**) a) What is collaborative filtering? Discuss its advantages and disadvantages [8] b) Explain semantic web in details [8] OR Explain the method for extracting data from text **Q10)**a) [8] Explain Collecting and Integrating Specialized Information on the web. b) [8]