Course Code: 1950548 **Roll No:** **MLRS- R19**

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
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III B.Tech I Sem Regular End Examination, February 2022

Information Retrieval Systems
(CSE)

Time: 3 Hours. **Max. Marks: 70**

Note: 1. Question paper consists: Part-A and Part-B.
2. In Part – A, answer all questions which carries 20 marks.
3. In Part – B, answer any one question from each unit.
Each question carries 10 marks and may have a, b as sub questions.

PART- A

(10*2 Marks = 20 Marks)

1.	a)	List the primary problems of information retrieval systems.	2M	CO1	BL1
	b)	Differentiate precision and recall.	2M	CO1	BL2
	c)	Define PAT data structure.	2M	CO2	BL1
	d)	What is XML data structure?	2M	CO2	BL1
	e)	What are the classes of automatic indexing?	2M	CO3	BL1
	f)	Define term clustering.	2M	CO3	BL1
	g)	Define similarity measure.	2M	CO4	BL1
	h)	What do you mean by selective dissemination of information?	2M	CO4	BL1
	i)	List the components of hardware text search systems.	2M	CO5	BL1
	j)	What do you mean by graph retrieval?	2M	CO5	BL2

PART- B

(10*5 Marks = 50 Marks)

2	a)	Illustrate functional overview of information retrieval system in detail.	5M	CO1	BL2
	b)	Discuss the relationship of information retrieval systems with dbms, digital libraries and data warehouses.	5M	CO1	BL2
		OR			
3		Analyze the importance of search capabilities and browse capabilities in information retrieval system.	10M	CO1	BL4
4	a)	Compare inverted file structure and signature file structure.	5M	CO2	BL2
	b)	Explain information extraction process.	5M	CO2	BL2
		OR			
5		Apply the Porter stemming algorithm for the following words: irreplaceable, informative, activation, and triplicate.	10M	CO2	BL3

6	a)	Discuss the advantages and disadvantages of using a statistical approach, a natural language approach and concept indexing approach to create index for set of documents.	5M	CO3	BL2
	b)	Differentiate single link, the clique and the star cluster methods.	5M	CO3	BL4
		OR			
7		Explain Rabin-Karp algorithm with an example.	10M	CO3	BL3
8	a)	Apply cosine similarity measure and Jaccard coefficient to compute similarity between document and query.	5M	CO4	BL3
	b)	Discuss the importance of information visualization process.	5M	CO4	BL2
		OR			
9		Analyze the importance of using relevance feedback mechanism in information retrieval process with suitable example.	10M	CO4	BL4
10	a)	Discuss the importance of hardware text search systems.	5M	CO5	BL2
	b)	Explain Video retrieval process.	5M	CO5	BL2
		OR			
11		Apply Boyer-Moore algorithm to perform pattern matching in order to optimize text search.	10M	CO5	BL3

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