R18 Code No: 155BV JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD **B. Tech III Year I Semester Examinations, February - 2022 INFORMATION RETRIEVAL SYSTEMS** (Computer Science and Engineering) Time: 3 hours Max. Marks: 75 Answer any five questions All questions carry equal marks With the help of a neat diagram, explain the text normalization process. 1.a) Discuss the Search Capabilities in detail. b) [7+8] What new areas of information retrieval research may be important to support a Digital 2.a) Library? Explain. Write the difference between data retrieval and information retrieval. b) [8+7] Differentiate human indexing and automatic indexing and list the advantages and 3. disadvantages of automatic indexing. [15] Explain the History and Objectives of Indexing. 4.a) b) Describe the Hypertext and XML Data Structures. [7+8] 5. Prove that a term could not be found in multiple clusters when using the single link technique. [15] What are the tradeoffs in the use of zoning as part of the indexing process? Explain.[15] 6. Explain about weighted searches of Boolean systems. 7.a) Explain about cognition and perception in information visualization. b) [7+8] 8.a) Discuss the Non-Speech Audio Retrieval. Explain the software text search algorithms in detail. b)

----00000----

		II-LIND	1		
4)	cđ	Explain in detail precision and recall?	s	TO	. L1
	ö	What is signature file structure and explain how it is useful in IRS.	S	C02	14
1	1	OR		t	
5)	ed	Explain in detail hypertext data structures?	5	COL	TI
	Ö	Explain in detail inverted file structure?	2	COI	[1]
		III-LIN1			
(9	69	What do you mean by natural language processing explain in detail	S	CO3	EI
	0	Explain in detail thesaurus generation?	S	CO3	L1.
		OR			
6	3	Explain in detail about concept indexing?	S	CO3	[1]
	0	Explain about automatic term clustering?	2	COI	L1
	-	linit-iv		-	
(8)	69	What is Relevance feedback and explain the positive and	S	C04	LI
	2	Explain in detail weighed searches of Boolean systems?	s	CO4	L1
	-	OR			
(6	20	Explain in detail similarity measures?	S	C04	L1
	P	Give a brief account on cognition and perception?	5	CO3	LI
	-	UNIT-V			
10)	0	Explain in detail hardware text scarch algorithm?	S	CO4	LI
	-	· Exolain in detail graph retrieval?	2	CO4	. L2
'	-		-		

2 CO4 L1 2 CO4 L1 2 CO4 L2 BL (50 Marks) Г 1 2 COI LI 2 COI LI BL 3 CO3 L1 CO3 L1 T L 2 CO2 L2 Part A is compulsory which carries 20 marks (10 sub questions are two from each unit carry 2 Marks). Answer all questions in Part A
 Part B Consists of 5 Units. Answer any one full question from each unit. Each question carries 10 Marks and may have a, b sub questions Maximum marks: 765 (2 Marks) col M CO COL M CO C02 III B.Tech I Semester (NR20) Regular Examination, January 2023 S N 5 Ś a. What are browse capabilities in information retrieval systems Discuss about search capabilities in information retrieval NARSIMHA REDDY ENGINEERING COLLEGE (UGC AUTONOMOUS) INFORMATION RETRIEVAL SYSTEM What are the two measures with an information retrieval (Computer Science and Engineering) Write brief note on digital libraries and data warehouses. Answer all the Units All Questions carry equal Marks i. Write short notes on hardware text search algorithm? Part-A Answer all questions This question paper contains two parts A and B Hall Ticket No .: I-LIND Part-B OR Write short notes on statistical indexing? Write short note on Ranking algorithms. Question Question Discuss about information extraction? What is manual Clustering? Define automatic indexing? j. Explain video Retrieval?

Define high lighting?

ä u -

system?

Q.No 1) 8.

Q.P Code: CS3115PE

Time :3 hours

Note:

Write about masking?

Page 1 of 2

E

COI

5

Retrieval

and information

Difference between database

ò.

systems?

explain in detail?

systems

ö ed Q.No

12

5 CO2

Page 2 of 2

5 П

C03 5 CO4

5

b. Describe in detail multimedia information retrieval?

[11] a. Draw and explain the streaming architecture?

OR

R18 Code No: 155BV JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B. Tech III Year I Semester Examinations, January/February - 2023 **INFORMATION RETRIEVAL SYSTEMS** (Computer Science and Engineering) Time: 3 Hours Max. Marks: 75 Note: i) Question paper consists of Part A, Part B. ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions. iii) 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 (25 Marks) 1.a) Define recall. [2] What are the search capabilities of an IDS? b) [3] c) What is meant by public index? [2] What is the basis for concept indexing? d) [3] What is logarithmetic term frequency? e) [2] List the steps in the clustering process. f) [3] g) What is the impact of relevance feedback on search? [2] What is statistical system binding? h) [3] i) List the functions supported by Fast Data Finder. [2] What are the five elements of finite state automata used in text searching algorithms? i) [3] PART – B (50 Marks) Describe the item normalization process of information retrieval system in detail. [10] 2. OR 3.a) Discuss the limitations of term masking. b) Compare natural language queries with multimedia queries. 4.a) Illustrate the two processes associated with information extraction. Demonstrate multimedia indexing. b) +51OR Make a comparison of dictionary look-up stemmers and successor stemmers. 5.a) How to create a PAT tree? Explain with example data. b) [5+5]6. Explain the need and importance of weighting scheme for automatic indexing and the problems associated with the weighting scheme. [10]

7. Consider the following term-term matrix:



a) Determine the Term Relationship matrix using a threshold of 10 or higher

b) Determine the clusters using the clique technique

c) Determine the clusters using the star technique where the term selected for the new seed for the next star is the smallest number term nor already part of a class. [2+4+4]

- Compare and contrast Jaccard measure with Dice measure for similarity. 8.a)
- Discuss the significance of negative feedback in ranking the documents. b) [5+5]OR
- Explain the potential ambiguities in use of relevance feedback on hypertext documents. 9.a)
- Briefly describe the aspects of the visualization process. b) [5+5]
- Demonstrate Boyre-Moore Algorithm for the following scenario, explain each step. 10. String to be searched: abcac ababdcabcdacabcac Input String: [10]

- Discuss the predominant features of still imagery that can be used in content based 11.a) indexing.
 - b) Describe the features of Sagebook for graph retrieval.

---00000----

Q.P Code: DS3115PE

Hall Ticket No .:

NARSIMHA REDDY ENGINEERING COLLEGE (UGC AUTONOMOUS) III B.Tech I Semester (NR20) Supplementary Examination, June 2023

(Computer Science and Engineering (Data Science)) INFORMATION RETRIEVAL SYSTEM

Maximum marks: 75

Time : 3 hours

Note: • This question paper contains two parts, A and B

- Part A is compulsory which carries 20 marks (10 sub questions are two from each unit carry 2 Marks). Answer all questions in Part A
 Part B Consists of 5 Units. Answer one question from each unit. Each question carries 10 Marks and may have a, b sub questions

(25 Marks) Answer all questions Part-A

0	Question	N	CO	BI
-i	Write short notes on types of index files?	2	C01	
0	Define automatic indexing?	2	C02	LI
ci	Define	2	C01	1
	I) over generation			
	II) Fallout?			
-i	Define inverter file structure?	2	C01	-
1 ni	Discuss about information extraction?	2	C01	=
4	Explain about item clustering?	3	C03	L2
ni	Write short notes on search statement. List three levels of	S	CO3	LI
	binding?			
1.	Explain jaccarrd similarity measure with formula?	3	C03	LI
	Write brief note on spoken language audio retrieval?	3	C04	LI
	Explain about topic detection and tracking (TDT)?	3	C03	T1

All Questions carry equal Marks Answer all the Units Part-B

(50 Marks)

Ó.	No	Question	N	CO	BL	
		UNIT-I				
2)	сі	Explain in detail about the four major functional processes in information retrieval systems?	S	C01	Ll	
	b.	Write brief note on digital libraries and data warehouses	S	C02	ΓI	
		OR				
3)	a.	Discuss about search capabilities in information retrieval systems?	5	C01	L1	1
	b.	Explain in detail about				
		I)Document database search	1			
		II) index database search	0	COI	L2	
		III) Multimedia database search?				

	II-III O			
	Explain in detail successor steamers?	S	C02	F
	Explain the porter stemming algorithm?	S	C02	1.2
	OR			
	Explain in detail the indexing process for information retrieval systems with neat diagram ⁹	S	COI	F
	Discuss the different classes of automatic indexino?	V	100	
		2	100	
	Discuss statistical type of indexing method in detail?	S	CO3	1
	What is mean by automatic indexing? Discuss about statistical			
	indexing and concept indexing?	S	C03	El
1 1	OR			
	Explain in detail different classes of automatic indexing?	5	C03	[]
	What do you mean by natural language processing explain in	v	CO3	1
			2	
	VI-TIV			
	What are search statements and why there are three levels of binding in the creation of search?	S	C04	LI
	Explain in detail about the various ranking algorithms?	5	C04	L1
	OR			
-	Discuss various information visualization technologies?	5	CO3	
_	List and explain the six key characteristics of intelligent agents			
	in internet and hypertext?	S	C04	ΓI
	A-TINU			
	Explain in detail video retrial ?	S	C03	[]
	Discuss in brief about non-speech audio retrieval and graph retrial?	5	C04	Ll
	OR			
	Explain in detail about software text search algorithms?	S	C04	LI
_	Explain in detail spoken language audio retrieval?	v	C03	C 1

--00000---

Page 1 of 2