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UGC - Autonomous Institute
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Previous Question Papers

[illegible]

D.P Code: CS3115PE

Hall Ticket No.:

NARSIMHA REDDY ENGINEERING COLLEGE
(UGC AUTONOMOUS)

University of Technology, January 2023

INFORMATION RETRIEVAL SYSTEM
(Computer Science and Engineering)

Time: 3 hours

Maximum marks: 75

This question never contains two parts A and B

- 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 any one full question from each unit. Each question carries 10 Marks and may have a, b sub questions

(2 Marks)

Part-A

Answer all questions

(50 Marks)

Part-B

Answer all the Units

All Questions carry equal Marks

Q.No	Question	M	CO	BL
	UNIT-I			
a)	Discuss about search capabilities in information retrieval systems	\$	CO1	L1
b.	Write brief note on digital libraries and data warehouses.	\$	CO2	L1
	OR			
a)	What are browse capabilities in information retrieval systems? Explain in detail?	\$	CO2	L2
b.	Difference between database and information retrieval systems?	\$	CO1	L1

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Code No: 117DX

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2017

INFORMATION RETRIEVAL SYSTEMS

(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 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, c as sub questions.

Part- A

(25 Marks)

- 1.a) What is a non-binary independence model? [2]
- b) What is a term frequency and normalized term frequency? Write down their equation [3]
- c) Give an example that improves the effectiveness of Information retrieval system. [2]
- d) What is Ward's method in clustering? Give example. [3]
- e) What are semantic networks? [2]
- f) What is comparable corpus and parallel corpus? [3]
- g) What is meant by query processing? [2]
- h) What is a signature and how to construct signature file. [3]
- i) What is high-precision search? [2]
- j) What is structured data and what is the use of XML? [3]

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INFORMATION RETRIEVAL SYSTEMS

Part-B

(50 Marks)

2. Explain about vector space model in detail. [10]

OR

- 3.a) Explain about retrieval strategies and their categories.
b) What is smoothing in language model? Explain. [5+5]

- 4.a) Explain how Thesaurus are used to expand a query.
b) Explain about the use of manually generated Thesauri. [5+5]

OR

5. Explain about:
a) Resultset clustering b) Hierarchical Agglomerative clustering
c) Rocchio clustering [3+4+3]

- 6.a) What are the four core questions to cross the language barrier?
b) Explain about document translations and query translations. [4+6]

OR

7. Explain the following in semantic networks
a) R-distance b) K-distance [5+5]

8. Discuss about Duplicate document detection. [10]

OR

9. Explain about fixed length and variable index compression. [10]

10. What is distributed document retrieval? Explain the theoretical model of distributed retrieval.

[10]

OR

- 11.a) Explain briefly about advantages and disadvantages of combining systems of DBMS and Information retrieval.
b) Explain about Relevance feedback in relational model. [5+5]

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Code No: 117DX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December

- 2016 INFORMATION RETRIEVAL SYSTEMS

(Computer Science and Engineering)

Time: 3 Hours

Max.

Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 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, c as sub questions.

PART- A

(25 Marks)

- 1.a) Explain Precision and Recall.
[2]
- b) Define Incorporating Term Frequency with example.
[3]
- c) What is computing New Query Weights?
[2]
- d) Explain the following terms with examples.
i) Ward's Method ii) Rocchio Clustering.
[3]
- e) What is use of POS and word sense tagging?
[2]
- f) Explain about Phrase Translation.
[3]
- g) Define Signature files.
[2]
- h) Explain compression based on posting list size.
[3]
- i) Explain about Query Log Analysis.
[2]
- j) Explain Proximity searches.
[3]

PART-B

(50 Marks)

2. Explain key concerns with Probabilistic Retrieval Strategies.
[10]

OR

3. Find the $P_{avg}(t)$ and $R_{t,d}$ for the following query using Language Model method
Query: "gold silver truck"
D1: "shipment of gold damaged in a fire"
D2: "delivery of silver arrived in a silver truck"
D3: "shipment of gold arrived in a truck"

INFORMATION RETRIEVAL SYSTEMS

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4. Explain about the concept of N-Gram in detail.
[10]

OR

5. Consider the following example and find the Term co-occurrence D1 : “a dog will bark at a cat in a tree”
D2 : “ants eat the bark of a tree”

[1

0]

Explain about Incorporating Distance and Complex Phrases.

[1

0]

OR

6. What is Parsing? Explain Single terms and Simple Phrases?
[10]

7. How do you perform Duplicate Document Detection in detail?
[10]

OR

8. Explain in detail the partial result set retrieval and vector space simplifications.
[10]

9. How to compute the relevance using Unchanged SQL? Explain with example.
[10]

OR

10. What is a Distributed information retrieval? Explain about distributed information retrieval system model?
[10]

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