



B.E DEGREE MODEL EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Seventh Semester

INFORMATION SCIENCE AND ENGINEERING

U18IST7001: Information Storage and Retrieval

COURSE OUTCOMES

- CO1:** Set-up different cloud storage options.
CO2: Analyze current environment and plan migration to cloud.
CO3: Understand the foundations of NLP techniques for text access and retrieval.
CO4: Evaluate an Information Retrieval Systems.
CO5: Understand Information Retrieval and Feedback model.
CO6: Understand the underlined technologies of a web search engine.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

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|---|-----|-------------------|
| 1. List the migration tools that integrate with AWS Migration Hub. | CO1 | [K ₂] |
| 2. State any three essential characteristics of cloud computing. | CO1 | [K ₂] |
| 3. What is the differentiate between snowmobile and snowball. | CO2 | [K ₂] |
| 4. Relate standard MySQL and PostgreSQL engines available in Amazon RDS | CO2 | [K ₂] |
| 5. Distinguish data retrieval system and information retrieval system. | CO3 | [K ₂] |
| 6. State the art of NLP for Text Retrieval. | CO3 | [K ₂] |
| 7. Draw the typical Text Retrieval System Architecture. | CO4 | [K ₂] |
| 8. Define tokenization. | CO4 | [K ₂] |
| 9. How can a TR system learn from examples to improve retrieval accuracy? | CO5 | [K ₂] |
| 10. List out the web search challenges and opportunities. | CO6 | [K ₂] |

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

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|--|----|-----|-------------------|
| 11. a) Explain in detail about the Storage Types on AWS | 8 | CO1 | [K ₂] |
| b) Illustrate the Networking on AWS in detail. | 8 | CO1 | [K ₃] |
| 12. a) Explain in detail about Amazon Elastic Block Store. | 10 | CO2 | [K ₂] |

	b)	State how the AWS Database Migration Service works?	6	CO2	[K ₂]
13.	a)	Describe two problems exist in simplest vector space model	8	CO3	[K ₃]
	b)	Explain TF Transformation and Doc Length Normalization with example	8	CO3	[K ₂]
14.	a)	Design probabilistic retrieval model using smoothing and ranking function	10	CO4	[K ₃]
	b)	Explain Query generation by sampling words from a Doc and write example with different Query.	6	CO4	[K ₃]
15.	a)	Design Vector Space Model for Rocchio Feedback	8	CO5	[K ₃]
	b)	Explain Recommender Filtering System and specify three basic problems exist in Content-Based Filtering.	8	CO5	[K ₂]
16		Illustrate the web indexing on multiple machines GFS Architecture, with an example of creating the index in parallel MapReduce.	16	CO6	[K ₃]
