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Question Paper Code	12564
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B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

Eighth Semester

Computer and Communication Engineering

20CSEL703 – INFORMATION RETRIEVAL TECHNIQUES

Regulations – 2020

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

	Marks	K-Level	CO
1. Identify the need of Information Retrieval.	2	K1	CO1
2. Compare Information vs Data Retrieval.	2	K2	CO1
3. List the classes of retrieval model.	2	K1	CO2
4. Interpret cosine similarity measure.	2	K2	CO2
5. Distinguish Supervised learning and Unsupervised Learning.	2	K2	CO3
6. What is a Range query and Nearest-Neighbor Queries?	2	K1	CO3
7. What is meant by Search Engine Optimization?	2	K1	CO4
8. Classify the types of search engines.	2	K2	CO4
9. Classify collaborative filtering system.	2	K2	CO5
10. Describe Hybrid recommendation system.	2	K2	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Describe the various components of Information Retrieval System with neat diagram.	13	K2	CO1
OR			
b) Explain in detail about search interfaces available today.	13	K2	CO1
12. a) i) Express what is Boolean retrieval model.	4	K2	CO2
ii) Describe the document preprocessing steps in detail.	9	K2	CO2
OR			
b) i) Explain about explicit relevance feedback mechanism with neat diagram.	6	K2	CO2
ii) Write short note on implicit relevance feedback mechanism with neat diagram.	7	K2	CO2
13. a) i) Analyze the working of Nearest Neighbor algorithm along with one representation.	6	K3	CO3
ii) Analyze the K-Means Clustering method and the problems in it.	7	K3	CO3

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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OR

- b) i) Analyze about Decision Tree Algorithm with illustration. 6 K3 CO3
ii) Demonstrate its working in detail with an example. 7 K3 CO3
14. a) With the neat diagram explain the features and architecture of Web crawler. 13 K2 CO4

OR

- b) Discuss about search engine user interaction in detail. 13 K2 CO4
15. a) Classify the different types of recommendation systems. 13 K2 CO5

OR

- b) i) Design Matrix factorization model. 6 K2 CO5
ii) Explain in Detail about Neighboring models in detail. 7 K2 CO5

PART - C (1× 15 = 15 Marks)

16. a) Explain about Information Visualization techniques. 15 K2 CO6

OR

- b) Discuss about the aspects of visualization process. 15 K2 CO6