

Reg. No.

Question Paper Code

12018

17 JUL 2023

M.E. / M.Tech. - DEGREE EXAMINATIONS, APRIL/MAY 2023

Second Semester

M.E. - Computer Science and Engineering

20PCSEL203 - INFORMATION RETRIEVAL TECHNIQUES

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

- | | <i>Marks,
K-Level, CO</i> |
|---|-------------------------------|
| 1. What is the need of an Information Retrieval system? | 2,K1,CO1 |
| 2. Compare Information and Data Retrieval. | 2,K2,CO1 |
| 3. What is Vector space model representation? | 2,K1,CO2 |
| 4. What is probabilistic Information Retrieval? | 2,K1,CO2 |
| 5. How is query Expansion done? | 2,K1,CO3 |
| 6. What is pattern matching? | 2,K1,CO3 |
| 7. Define Unsupervised algorithm. | 2,K1,CO4 |
| 8. What is a Support Vector? | 2,K1,CO4 |
| 9. What is Hierarchical Clustering? | 2,K1,CO5 |
| 10. Write a note on Matrix decompositions? | 2,K1,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) Discuss the framework of Open Source Search engine with necessary diagrams. 13,K2,CO1
12. a) Describe the Taxonomy of IR Models and explain about the Boolean model. 13,K2,CO2
- OR**
- b) Discuss about the Vector Space model with a diagram. 13,K2,CO2
13. a) Explain about Sequential Searching and Pattern Matching. 13,K2,CO3
- OR**
- b) Discuss Relevance Feedback and Query Expansion in detail. 13,K2,CO3

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

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14. a) Explain Support Vector machines in detail. *13,K2,CO4*

OR

b) Discuss in detail about Naive Bayes text classification. *13,K2,CO4*

15. a) Describe Latent Semantic Indexing with a diagram. *13,K2,CO5*

OR

b) Discuss Flat Clustering in detail. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Demonstrate Web Crawling in detail. *15,K3,CO6*

OR

b) Illustrate the Concept of parallel and distributed Information Retrieval and its advantages over traditional IR systems. *15,K3,CO6*