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| Question Paper Code | 12801 |
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M.E. / M.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

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

|  | Marks | K-<br>Level | CO  |
|--|-------|-------------|-----|
| 1. Define Information Retrieval.       | 2     | K1          | CO1 |
| 2. List any two issues that affect IR. | 2     | K1          | CO1 |
| 3. What is meant by sparse vector?     | 2     | K1          | CO2 |
| 4. Define Ranking.                     | 2     | K1          | CO2 |
| 5. What is pattern matching?           | 2     | K1          | CO3 |
| 6. What is Index compression?          | 2     | K1          | CO3 |
| 7. Define Supervised algorithm.        | 2     | K1          | CO4 |
| 8. What is Naïve Bayes Theorem?        | 2     | K1          | CO4 |
| 9. What is Flat Clustering?            | 2     | K1          | CO5 |
| 10. What is Fusion learning?           | 2     | K1          | CO5 |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

|   |    |    |     |
|---|----|----|-----|
| 11. a) Discuss the history of IR in detail.   | 13 | K2 | CO1 |
| <b>OR</b>   |    |    |     |
| b) Describe the various components of Information Retrieval System with neat diagram. | 13 | K2 | CO1 |
| 12. a) Explain in detail on Probabilistic Information Retrieval.                      | 13 | K2 | CO2 |
| <b>OR</b>   |    |    |     |
| b) Demonstrate the Vector space model in detail.                                      | 13 | K2 | CO2 |
| 13. a) Discuss Relevance Feedback and Query Expansion in detail.                      | 13 | K2 | CO3 |
| <b>OR</b>   |    |    |     |
| b) Illustrate in detail on Index Construction and Index Compression.                  | 13 | K2 | CO3 |

14. a) Summarize in detail about Naive Bayes text classification and list down the properties of Naive Bayes. 13 K2 CO4
- OR**
- b) Demonstrate about Support Vector Machines in detail. 13 K2 CO4
15. a) Illustrate Latent Semantic Indexing in detail. 13 K2 CO5
- OR**
- b) Explain in detail about Matrix decompositions. 13 K2 CO5
- PART - C (1 × 15 = 15 Marks)**
16. a) Illustrate Web Crawling in detail. 15 K2 CO6
- OR**
- b) Discuss in detail on XML Retrieval. 15 K2 CO6