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|  | Continuous Assessment Test- III [CAT - III] | |
| Year | : IV year |
| Semester | : 06 Sem |
| Branch / Section | :B.E / CSE A |
| Sub. Code | : CS8080 |
| Subject Name | : Information Retrieval Techniques |
| QP Code | : (To be filled by exam cell) |

*[Regulations 2017]*

**Date: 03.05.2024 Time: 90 Min. Marks: 50**

**Answer ALL Questions**

**Part A [5 x 2 = 10 Marks]**

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| Q.NO | **QUESTION** | **BT LEVEL** | **CO** |
| 4.1 | Compare parallel crawler and meta crawler. | **[A2]** | **CO4** |
| 4.2 | Illustrate the hashing technique with example | **[A1]** | **CO4** |
| 4.3 | What is meant by Search Engine Optimization? | **[A1]** | **CO4** |
| 4.4 | Eloborate on XML Retrieval | **[A2]** | **CO4** |
| 4.5 | Evaluate use of inversion in indexing process. | **[B2]** | **CO4** |

**Part B [1x15=15 Marks]**

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| 4.6 | a | i)Examine the behavior of web crawler and the outcome of crawling policies. (7)  ii)Evaluate the impact of the following, (8)  a) Focused Crawling b) Deep web c) Distributed crawling d) Site Considering the factors such as bandwidth usage, server load, and website performance. Discuss potential challenges and strategies for mitigating negative effects while maximizing the benefits of web crawling | **[B2]** | **CO4** |
|  | **[OR]** | |  |  |
| 4.7 | b | Systematically analyze the following with example.   1. Bag of Words and Shingling (7) 2. Hashing, Min Hash and Sim Hash (8) | **[B2]** | **CO4** |

**Part A [5 x 2 = 10 Marks]**

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| Q.NO | **QUESTION** | **BT LEVEL** | **CO** |
| 5.1 | Classify collaborative filtering system | **[A2]** | **CO5** |
| 5.2 | Define Meta level and Cascade Recommendation system | **[A1]** | **CO5** |
| 5.3 | Mention the advantages of Hybrid recommendation system. | **[A1]** | **CO5** |
| 5.4 | What isMatrix factorization models? | **[A1]** | **CO5** |
| 5.5 | Compare Collaborative and Content based recommendation system | **[A2]** | **CO5** |

**Part B [1x15=15 Marks]**

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| 5.6 | a | 1. Discuss the functionality of a recommender system and provide examples of how it is commonly used in online platforms. (6) 2. Discuss the concept of Matrix Factorization in the context of recommender systems. How does Matrix Factorization help address the challenges of sparsity and scalability in recommendation algorithms? (9) | **[C2]** | **CO5** |
|  | **[OR]** | |  |  |
| 5.7 | b | Discuss the concept of High-Level Architecture (HLA) in the context of distributed simulation systems. Additionally, describe common terminologies associated with HLA and their significance in facilitating interoperability and reusability among distributed simulation components. | **[C2]** | **CO5** |

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