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**Presidency University**

**Bengaluru**

**School Of Computer Science and Engineering & Information Science**

**Summer Term End-Term Examinations, August 2024**

**Date**: 06-08-2024

**Time**: 09.30am to 12.30pm

**Max Marks**: 100

**Weightage**: 50%

**Odd Semester**: 2023 - 24

**Course Code**: CSE232

**Course Name**: Information Retrieval and Organization

**Department:** SOCSE

**Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Do not write any matter on the question paper other than roll number.*

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| **Q.No** | **Questions** | **Marks** | **CO** | **RBT** |
| 1 | 1. Define Information Retrieval (IR) with example. | 4 | CO1 | L1 |
| 1. Explain types of Information Retrieval Systems. | 6 | CO1 | L2 |
| 1. Determine the main components of an Information Retrieval system and their roles. | 10 | CO1 | L3 |
| OR | | | | |
| 2 | 1. What are the three basic techniques mentioned in the presentation for Information Retrieval? | 4 | CO1 | L1 |
| 1. Explain how information is different from data retrieval. | 6 | CO1 | L2 |
| 1. Examine and explain general software architecture of IR System | 10 | CO1 | L3 |

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| 3 | 1. Define Probabilistic Model with example. | 4 | CO2 | L1 |
| 1. Describe the vector space model and its application in IR. | 6 | CO2 | L2 |
| 1. Illustrate the concept of query-independent document scoring and its significance in the context of IR. | 10 | CO2 | L3 |

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| 4 | 1. What is Latent-Semantic Indexing Model? Give example. | 4 | CO2 | L1 |
| 1. Explain the concept of relevance ranking and describe two methods used for ranking documents in IR. | 6 | CO2 | L2 |
| 1. Illustrate how neural network model helps for retrieving the information. | 10 | CO2 | L3 |

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| 5 | 1. Define the terms Indexing and Searching with example | 4 | CO3 | L1 |
| 1. Explain search engine architecture with diagram. | 6 | CO3 | L2 |
| 1. Determine how ranking functions and evaluation measures apply for information retrieval. | 10 | CO3 | L3 |

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| 6 | 1. Define Sequential Searching and Multi-dimensional Indexing. | 4 | CO3 | L1 |
| 1. List and explain the applications of a Web Crawler | 6 | CO3 | L2 |
| 1. Illustrate how cluster based architecture used in information retrieval. | 10 | CO3 | L3 |

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| 7 | 1. Define Content-based Filtering and Collaborative Filtering | 4 | CO4 | L1 |
| 1. List advantages and disadvantages of Content-based Filtering and Collaborative Filtering | 6 | CO4 | L2 |
| 1. Determine how Matrix factorization models used in information retrieval | 10 | CO4 | L3 |

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| 8 | 1. What is recommendation system in information retrieval | 4 | CO4 | L1 |
| 1. Explain Content-based Filtering and Collaborative Filtering with example | 6 | CO4 | L2 |
| 1. Illustrate how recommendation techniques apply for information retrieval. | 10 | CO4 | L3 |

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| 9 | 1. Define data retrieval with example. | 4 | CO1 | L1 |
| 1. With diagram, explain software architecture of IR System. | 6 | CO1 | L2 |
| 1. How the Retrieval and Ranking Processes carried out in information retrieval. | 10 | CO1 | L3 |

OR

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| 10 | 1. Define TF-IDF with example. | 4 | CO2 | L1 |
| 1. Explain Probabilistic Model and Latent Semantic Indexing Model in information retrieval. | 6 | CO2 | L2 |
| 1. Illustrate how Explicit Relevance Feedback used for information retrieval evaluation | 10 | CO2 | L3 |