

Time: 3-hour

Max. Marks: 80

N.B

1. Q.1 is compulsory
2. Attempt any three from the remaining five questions.
3. Each Question carries 20 marks.
4. Assume suitable data, if required and state it clearly.

Q1 Attempt all

20M

- a. Differentiate between Data Retrieval and Information Retrieval.
- b. Describe meta searchers and its merits with example.
- c. A mobile banking app wants to improve how it presents account activity and financial trends to users. As a UX designer, you are tasked to recommend appropriate visualization techniques to make the interface more intuitive and informative.
- d. Explain the Retrieval Process with neat labelled diagram

Q 2. Attempt all.

20M

- a. What is Structured text retrieval Models? Explain different types with example.
- b. Consider the following documents
D1: I went to the park to play D2: park is nearby to play
D3: going to the park is fun D4: park nearby play
Apply vector model to rank the above documents.

Q3. Attempt all.

20M

- a. What is the purpose of using keyword-based query? Briefly explain any 3 types of keyword-based queries.
- b. What is Metadata? Explain Descriptive and Semantic Metadata in detail.

Q 4. Attempt all.

20M

- a. Illustrate any 2 markup languages and its applications.
- b. What is inverted Index? Describe the process of creating an inverted index without stop words with example.

Q.5. Attempt all.

20M

- a. Explain the concept of Video Information Retrieval (VIR) and Image Information Retrieval (IIR). Describe at least three techniques used in VIR and three techniques used in IIR. Discuss how these retrieval techniques can improve user experience in a multimedia search interface with example.
- b. A college is developing a student result management system in any software language stores a list of student names who appeared for an exam, allows duplicates (students appearing in multiple sessions) and display all names in the order they were added.

Identify

1. The starting point of the program and explain its purpose.
2. Describe how the List and Collection interfaces can be used in this case.
3. Briefly explain the advantages of using the Collection Framework in such applications

Q 6. Write short note any two

20M

- a. Explain how a user relevance feedback model can be applied to improve search results in search recommendation engine.
- b. Summarize different issues for modelling natural language
- c. Importance of Context in Information retrieval
