(3 Hours)   [Total Marks : 80]

N B   1. Q.1 is compulsory
        2. Attempt any three from the remaining five questions.
        3. Each Question carries 20 marks.

Q 1 Attempt all questions   **20 marks**
        1. Explain Classic Information Retrieval models.
        2. Define Natural Language with features and applications.
        3. List and define different parameters to judge the quality of information.
        4. Explain search engine Architecture

Q 2 Attempt all questions   **20 marks**
        1. Explain Relevance Feedback. Discuss the contribution of relevance feedback for quality
           IR.
        2. Discuss automatic local analysis, with suitable example.

Q 3 Attempt all questions   **20 marks**
        1. Discuss Multimedia IR Model
        2. What is human-computer interaction? List and discuss any four design principles for
           information access interfaces..

Q 4 Attempt all questions   **20 marks**
        1. Explain Object Oriented and Object Relational DBMS.
        2. Write a note on Scalar and Metrics Clusters.

Q 5 Attempt all questions   **20 marks**
        1. Describe the process of creating an inverted index with an example. How can this
           process be optimized using block addressing?
        2. What is Query Specification? Describe direct manipulation and natural language in the
           context to Boolean query formulation.

Q 6 Write a note on: **20 marks**
        1. Lexical analysis.
        2. Web information retrieval system
        3. Automatic feature extraction.
        4. Statistical text compression and Dictionary based text compression

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