

Program: T.Y.B.Sc CS Semester: VI Program Code: 1S00196
Course: Information Retrieval Course Code: USCS6032
Duration: 2 ½ Hours Examination Pattern: REV23 - Autonomous - External Max. Marks: 75

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat diagrams wherever necessary.

Examination:
REGULAR

Q. 1 Attempt ANY FOUR from the following: (20M)

- (a) Identify the need of Information Retrieval
- (b) Explain the issues and challenges in information retrieval
- (c) Define and differentiate between precision and recall
- (d) Explain the process of Indexing
- (e) How to process boolean queries?
- (f) Write note on edit distance.

Q. 2 Attempt ANY FOUR from the following: (20M)

- (a) Define text categorization and explain its importance in information retrieval systems.
- (b) Describe the main idea of Link Analysis.
- (c) Integrate the ideas of HITS Algorithm.
- (d) How can clustering be utilized for query expansion and result grouping in information retrieval systems.
- (e) What is cross lingual retrieval?
- (f) How to evaluate web document?

Q. 3 Attempt ANY FOUR from the following: (20M)

- (a) Explain breadth-first and depth-first Web page crawling Techniques?
- (b) Define near-duplicate page detection and its significance in web search. Explain the challenges associated with identifying near-duplicate pages.
- (c) What are Challenges associated with question answering.
- (d) Describe common techniques used in extractive text summarization.
- (e) Describe the role of test collections and benchmarking datasets in evaluating IR systems
- (f) Explain User-Based Evaluation in Information Retrieval

Q. 4 Attempt ANY FIVE from the following:

(15M)

- (a) Draw and explain a diagram for indexing in IR
- (b) What is context sensitive spelling correction?
- (c) What is the role of supervised learning techniques in learning to rank and their impact on search engine result quality
- (d) Explain the challenges in cross lingual retrieval.
- (e) Explain Knowledge-Based QA
- (f) Explain Hybrid Recommender Systems