

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, APRIL 2014

IT 09 L05—INFORMATION RETRIEVAL

(2009 Scheme)

(Regular/Supplementary/Improvement)

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

Short answer Questions (one/two sentences each).

- 1. What are the main objectives of Information Retrieval Systems?
- 2. What are the methods used for evaluating the Retrieval Performance?
- 3. What is the use of Cataloging and Indexing?
- 4. Define metadata.
- 5. State the need for Ranking and list the three ranking algorithms.

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions.

Analytical / Problem solving questions.

- Discuss the case study about how Information retrieval happens in a Library management system.
- 7. How do you expect that relevance feedback using negative judgment will affect the precision and recall of an information system?
- 8. Explain the DTD for structuring electronic mails with an example.
- 9. How do you generate the Thesaurus?
- 10. Explain how data pre-processing is done using the text operations.
- 11. Explain the challenges related to data while searching the Web.

 $(4 \times 10 = 40 \text{ marks})$

Part C

Answer all questions.

Descriptive/Analytical/Problem solving questions.

12. (a) How Digital Libraries can be used as Information base Systems?

Or

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- (b) Explain the Boolean, the vector and the probabilistic models in Information Retrieval.
- 13. (a) Explain the various reference collections which have been used throughout the years for the evaluation of retrieval systems.

Or

- (b) Explain about the following structures:—
 - (i) Form-like fixed structure.
 - (ii) Hyper text structure.
 - (iii) Hierarchical structure.
- (a) Explain the following Markup Languages :—
 - (i) SGML.
 - (ii) HTML.
 - (iii) XML.

Or

- (b) List the coding schemes for representing the text and explain the different characteristics of text.
- 15. (a) Explain the Generic multimedia Indexing approach.

Or

(b) Explain the different architectures of retrieval systems that model the Web as a full-text database.

 $(4 \times 10 = 40 \text{ marks})$