Question Paper Code : 70422

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

Sixth/Seventh/Eighth Semester

Computer Science and Engineering

CS 8080 – INFORMATION RETRIEVAL TECHNIQUES

(Common to: Computer and Communication Engineering / Information Technology)

(Regulations 2017)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the components of IR?

2. To measure the effectiveness of the IR system what are the measures used?

3. What is the basis for the vector model?

4. Define Relevance feedback model

5. What is Feature selection technique, provide an example.

6. Differentiate supervised and unsupervised classification.

7. What are the levels of link analysis?

8. Define web crawling with an example.

9. What are the functions of a recommender system?

10. Define Collaborative filtering.

PART B — (5 × 13 = 65 marks)

11. (a) Explain the Information Retrieval architecture with a neat diagram.

Or

(b) Explain in detail about Search Engines.

12. (a) Explain about the Boolean model for IR.

Or

(b) Give brief notes about user Relevance feedback method and how it is used in query expansion: Is it the most popular query formulation strategy? Justify?

13. (a) Explain in detail about SVM and decision tree classifiers with an example.

Or

(b) Explain Inverted indexes and Multi-dimensioning indexing in detail.

14. (a) Discuss the Web search Engine architecture in detail.

Or

(b) Discuss in detail the applications of web crawlers with an example.

15. (a) Explain in detail the high level architecture used in the recommender system.

Or

(b) Discuss in detail about matrix factorization models.

PART C — (1 × 15 = 15 marks)

16. (a) In what situation can a Vector space retrieval model be used? Explain with Vector space retrieval model with an example.

Or

(b) Explain Web Search Engine ranking mechanism in detail.

70422