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Eighth Semester B.E. Degree Examination, December 2011
Information Retrieval

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1 a. Discuss the similarity measures of comparing a query vector with a document vector. (10 Marks)
- b. Determine the similarity of vector space model between the given query and document collection :
Q : gold silver truck
D1 : shipment of gold damaged in a fire
D2 : delivery of silver arrived in a silver truck
D3 : Shipment of gold arrived in a truck. (10 Marks)
- 2 a. Explain how fuzzy sets are useful in IR, with an example. (06 Marks)
- b. What are the steps of genetic algorithm? Explain. (06 Marks)
- c. Explain how inference networks are useful for relevance ranking. (08 Marks)
- 3 a. Explain the relevance feedback in the probabilistic model. (10 Marks)
- b. What is thesauri? Briefly explain with a block diagram. (10 Marks)
- 4 a. How to build an inverted index? Explain with an algorithm. (10 Marks)
- b. Explain how to remove duplicates to improve efficiency and effectiveness of an IR? (10 Marks)

PART – B

- 5 a. Discuss the techniques of pattern matching, with an example of complex patterns. (10 Marks)
- b. Explain the language models for cross language IR. (10 Marks)
- 6 a. Discuss the benefits of the relational model, as a foundation for document retrieval. (10 Marks)
- b. Briefly explain the proximity searches used in information retrieval system? (10 Marks)
- 7 a. Discuss the parallel text scanning and parallel signature files. (10 Marks)
- b. Briefly describe the distributed information retrieval system model. (10 Marks)
- 8 a. Discuss the three main aspects, in designing a multimedia query language and some proposals. (10 Marks)
- b. Discuss how two – dimensional color images are indexed in QBIC and Gemini approach. (10 Marks)