

Code No: 117DX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2017

INFORMATION RETRIEVAL SYSTEMS

(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

- 1.a) Define Precision and recall. [2]
- b) Write a short note on probabilistic Retrieval. [3]
- c) Write a short note on clustering. [2]
- d) Explain briefly Thesaurus retrieval utility. [3]
- e) Define Semantic network. [2]
- f) Write a short note on parsing. [3]
- g) What is query processing? [2]
- h) Write a short note on pattern matching. [3]
- i) Discuss about relevance ranking [2]
- j) Write a short note on SIRE approach [3]

- 2. Explain in detail about Probabilistic model and briefly describe Simple term weights with an example. [10]

OR

- 3. Explain how query is generated using language models with a neat example. [10]

- 4. Explain in detail about Regression analysis with an example and list out its advantages. [10]

OR

- 5.a) Write a short note on hierarchal agglomerative clustering.
- b) Explain in detail how clustering technique is used for generating Thesaurus. [5+5]

- 6.a) Explain how parsing of single terms is performed in information retrieval.
- b) Explain in detail about K-Distance measure. [5+5]

OR

- 7.a) Explain how syntactic parsing is carried out for complex phrases.
- b) Write a short note on crossing the language barrier in information retrieval. [5+5]

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8.a) Explain in detail how shingles are used to determine similarity between different
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AG b) Write a short note on inverted index. [5+5]

OR

9.a) Explain in detail how can we improve efficiency of an index compression. [5+5]
b) Explain in detail about duplicate elimination.

10.a) Explain in detail about centralized information retrieval system model.
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AG b) Explain in detail about page rank calculation. [5+5]
OR
11. Explain how relational DBMS can be extended in order to include information retrieval
functionality using historical Progression approaches. [10]

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