

# SPPU-BE-COMP-CONTENT – KSKA Git

Total No. of Questions : 8]

SEAT No. :

PC2376

[Total No. of Pages : 2

[6354]-493

**B.E. (Computer Engineering)  
INFORMATION RETRIEVAL**

**(2019 Pattern) (Semester - VII) (Elective - IV) (410245 A)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) List out the General-Purpose Data Compression techniques and explain with suitable example. [6]
- b) Describe in detail Invalidation List, Garbage Collection, Document Modifications in document deletion. [6]
- c) Write a short note on. [6]
- i) Modeling and coding
  - ii) Arithmetic Coding

OR

- Q2)** a) Explain software Architecture of the IR system in detail. [6]
- b) Explain in details: [6]
- i) Decoding performance
  - ii) Document Reordering
- c) Describe data compression with Huffman coding. [6]

- Q3)** a) Explain categorization and filtering with any two detailed examples. [7]
- b) Describe passage retrieval and ranking with example. [5]
- c) Explain the Information-Theoretic Model in detail. [5]

OR

- Q4)** a) Explain probabilistic Classifiers & Generalized Linear Models. [7]
- b) Explain Relevance Feedback Technique with suitable diagram. [5]
- c) Describe Language Models and Smoothing. [5]

*P.T.O.*

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- Q5)** a) Explain Measuring effectiveness like Traditional effectiveness measure and the text retrieval conference (TREC) with suitable examples. [6]  
b) Write a short note on: [6]  
i) Nontraditional effectiveness measures.  
ii) Measuring efficiency  
c) Explain query scheduling with suitable examples. [6]

OR

- Q6)** a) Write a short note on: [6]  
i) Minimizing adjudication effort.  
ii) Using statistics in evaluation  
b) Explain caching with suitable examples. [6]  
c) Differentiate between Redis and Memcached. [6]
- Q7)** a) Describe Map reduce with suitable examples. [6]  
b) Write a short note on: [6]  
i) The structure of the web  
ii) Python Scrappy  
c) Describe web crawler with its components. [5]

OR

- Q8)** a) Describe Parallel Query Processing with suitable examples. [6]  
b) Explain the following term:  
i) Static ranking  
ii) Dynamic ranking [6]  
c) Write a short note on Evaluation web search. [5]

