

Total No. of Questions : 8]

SEAT No. :

P6785

[6181] - 411

[Total No. of Pages : 2

B.E. (Artificial Intelligence & Data Science)

INFORMATION RETRIEVAL

(2019 Pattern) (Semester - VII) (417524 B) (Elective - IV)

Time : 2 ½ 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) *Assume suitable data if necessary.*

- Q1)** a) Define and explain Probabilistic Retrieval. [6]
b) What is the probability ranking principle for interactive information retrieval? [6]
c) What is the binary independent retrieval model? [6]

OR

- Q2)** a) What is language modeling approach to information retrieval? [6]
b) State and explain different types of Bayesian networks? [6]
c) Explain language models? [6]

- Q3)** a) What is the difference between clustering and classification? Can clustering be used for classification purposes? [6]
b) What are different types of clustering algorithm? Explain any one of them. [5]
c) What are the applications of naive Bayes classifier? [6]

OR

- Q4)** a) What is K nearest neighbor classifier with an illustration in information retrieval? [6]
b) What are the different types of agglomerative clustering? [5]
c) What is the hypothesis used in the vector space model for classification? [6]

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- Q5)** a) Factors that influence a webpage's PageRank score. [6]
b) Explain search engine ranking function? [5]
c) What is parallelism in query processing? [6]

OR

- Q6)** a) Define Python library is used for web crawling? [6]
b) What are the Main challenges posed by Web? [5]
c) Explain the components of focused web crawlers? [6]

- Q7)** a) Explain multimedia IR models? [9]
b) What are the four phases of recommender system? [9]

OR

- Q8)** a) Multimedia Information Retrieval. [9]
b) What is the difference between information retrieval and recommender system? [9]

