

(2)

Ex/ML/10/2019

OR

2B. State the hypothesis of principle of polyrepresentation. Describe the polyrepresentation of the user's cognitive space. 3+12

3A. State the analogy between Quantum Theory (QT) and Information Retrieval (IR). Can quantum formalism be applied to design better IR models? – Discuss. 3+12

OR

3B. What do you understand by 'Sentiment Analysis' and 'Opinion Mining'. Describe different types of sentiment analysis. What are the problems of sentiment analysis. 5+6+4

4. Write short notes on any **one** of the following : 5x1=5

- (a) Linked data
- (b) Patent Information Retrieval
- (c) Question answering
- (d) Knowledge graph

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**MASTER OF LIBRARY AND INFORMATION SCIENCE
EXAMINATION, 2019**

(1st Year, 2nd Semester)

Information Retrieval - II

Paper : ML - 10

Time : Two hours

Full Marks : 50

The figures in the margin indicate full marks.

Answer **all** questions.

1A. What is Natural Language Processing (NLP)? What are the applications of NLP? What is corpus? Distinguish between Natural Language Understanding (NLU) and Natural Language Generation (NLG). Define Context Free Grammar with examples. Mention the differences between stemming and lemmatization. 3+2+1+3+3+3

OR

1B. What are the problems of Multimedia Information Retrieval? What is Content-Based Image Retrieval (CBIR)? Name some application areas of it. Describe different levels of feature extraction in CBIR. 3+3+3+6

2A. Draw a diagram for the modern search engine architecture. What are Page Rank and HITS? Discuss briefly on Search Engine Result Page (SERP). What is web spam?

3+4+6+2

(Turn Over)