

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2022****Subject Code:3170718****Date:08/06/2022****Subject Name:Information Retrieval****Time:02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Mention various applications of IR.	03
	(b) What is Information Retrieval? Explain.	04
	(c) What is the basis for the boolean model? List the advantages and Disadvantages of it.	07
Q.2	(a) Define indexing & document indexing.	03
	(b) Describe and Explain Zipf's law in Detail.	04
	(c) Explain Vector Space Model with advantages and disadvantages.	07
	OR	
	(c) Define Relevance feedback model. What are the Advantages of the User Relevance Feedback method?	07
Q.3	(a) Define Precision and Recall.	03
	(b) What is Kappa Measure? Explain using an Example.	04
	(c) What's the "kernel trick" and how is it useful? Explain Soft-Margin.	07
	OR	
Q.3	(a) Mention Interjudge Agreement.	03
	(b) What is F-Measure? Explain using an Example.	04
	(c) Explain KNN algorithm with an example.	07
Q.4	(a) What is boosting? List out different boosting algorithms.	03
	(b) Briefly explain K-Means Algorithm.	04
	(c) Explain Naive Bayes Classifiers in detail.	07
	OR	
Q.4	(a) What is a dendrogram?	03
	(b) Explain Structured and Unstructured Data.	04
	(c) Explain SVM(Support Vector Machine).	07
Q.5	(a) Mention Topic Detection.	03
	(b) What is the use of Link analysis? Explain any one of the link analysis techniques.	04
	(c) Explain CLIR(Cross Language Information Retrieval).	07
	OR	
Q.5	(a) What is personalization? Mention types of personalization.	03
	(b) How can we assign a page Rank score to each node of the graph?	04
	(c) Explain XML retrieval.	07
