

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2022****Subject Code:3170718****Date:10-01-2023****Subject Name:Information Retrieval****Time:10:30 AM TO 01:00 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) Discuss Information Retrieval with its applications.	03
	(b) Define: Tokenization and Stemming.	04
	(c) Explain Structured, Unstructured and Semi-Structured text with suitable example.	07
Q.2	(a) Define: Precision, Recall and F-measure.	03
	(b) Discuss Boolean Queries and Inverted index in IR.	04
	(c) Explain Naive Bayes models with suitable example.	
	OR	
	(c) Discuss the Boolean Retrieval in detail with diagram.	07
Q.3	(a) Write a note on Rocchio method.	03
	(b) Write the differences between dynamic indexing and static indexing	04
	(c) Explain the retrieval performance evaluation.	07
	OR	
Q.3	(a) Discuss kappa measure.	03
	(b) Explain following terms: TFIDF and Okapi.	04
	(c) Briefly discuss vector space retrieval model with example.	07
Q.4	(a) Write a short note on classification.	03
	(b) Discuss hierarchical clustering method.	04
	(c) Briefly discuss working of k nearest neighbor with the help of appropriate example.	07
	OR	
Q.4	(a) Write a short note on clustering.	03
	(b) Write the differences between classification and clustering.	04
	(c) Discuss working of k-Means clustering with its pros and cons.	07
Q.5	(a) Write a note on web crawling.	03
	(b) Discuss: PageRank and HITS	04
	(c) Describe Cross language information retrieval and its limitation in web search.	07
	OR	
Q.5	(a) Write a note on semantic web.	03
	(b) Discuss: Ranking and Link Analysis	04
	(c) Explain XML retrieval? Also write down the major challenges in XML retrieval?	07
