

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER- VII EXAMINATION – SUMMER 2026****Subject Code:3170718****Date:29-05-2026****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) Discuss Information Retrieval with its applications.	03
	(b) Discuss: stop words and tokenization.	04
	(c) Explain working of naive bayes models.	07
Q.2	(a) Describe Zipf's Law.	03
	(b) Discuss: stemming and phrases.	04
	(c) Differentiate Structured, Unstructured and Semi-Structured text.	07
OR		
	(c) What is Index compression? Explain lexicon compression and postings lists compression.	07
Q.3	(a) Explain n-gram indexes.	03
	(b) Write a short note on cosine measure.	04
	(c) Briefly discuss vector space retrieval model with example.	07
OR		
Q.3	(a) Differentiate between Inverted Index and Forward Index	03
	(b) Discuss kernel method in short.	04
	(c) Explain the retrieval performance evaluation.	07
Q.4	(a) Define the terms: TF-IDF	03
	(b) Write the differences between classification and clustering.	04
	(c) Briefly discuss working of k nearest neighbour with the help of appropriate example.	07
OR		
Q.4	(a) Write Short notes on Support vector machine classifiers.	03
	(b) Discuss spam filtering.	04
	(c) Discuss types of hierarchical clustering method.	07
Q.5	(a) What is the need of Filtering against spamming?	03
	(b) Describe Cross language information retrieval.	04
	(c) Explain hierarchical agglomerative clustering technique with appropriate example.	07
OR		
Q.5	(a) Discuss: PageRank and HITS	03
	(b) Write a short note on semantic web.	04
	(c) Explain XML retrieval? Also write down the major challenges in XML retrieval?	07
