Reg. No.															

Question Paper Code	13777

M.E. - DEGREE EXAMINATIONS, APRIL / MAY 2025

Second Semester

M.E. - Computer Science and Engineering

20PCSEL203 / 24PCSEL203 - INFORMATION RETRIEVAL TECHNIQUES

Regulations - 2020 / 2024

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks	K – Level	CO
1.	Name any two practical issues in IR systems.	2	K1	CO1
2.	List two basic concepts of IR.	2	K1	CO1
3.	Define Information Retrieval model.	2	K1	CO2
4.	Write a note on set-theoretic models used in IR.	2	K1	CO2
5.	Mention any two advantages of using index compression.	2	K1	CO3
6.	State the purpose of query expansion.	2	K1	CO3
7.	Write note on SVM.	2	K1	CO4
8.	Give two advantages of Naïve Bayes in text classification.	2	K1	CO4
9.	Define flat clustering.	2	K1	CO5
10.	Write note on Meta-learning.	2	K1	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

			Marks	K – Level	CO
11.	a)	Illustrate the practical issues commonly encountered in real-world IR implementations.	13	K2	CO1
		OR			
	b)	Demonstrate in detail the architecture of the IR system.	13	K2	CO1
12.	a)	Explain the basic principles of probabilistic models used in IR.	13	K2	CO2
		OR			
	b)	Discuss the taxonomy and characterization of different Information Retrieval models with appropriate examples.	13	K2	CO2
13.	a)	Illustrate sequential searching with an example and explain its advantages and limitations.	13	K2	CO3
		OR			
	b)	Describe Rocchio's algorithm for relevance feedback.	13	K2	CO3
14.	a)	Develop a Vector Space modelfor Classification task.	13	K3	CO4
		OR			
	b)	Construct a Support Vector Machine classifier for a text classification task.	13	K3	CO4

15. a) Discuss the steps involved in agglomerative hierarchical clustering. *13 K2 CO5*

OR

b) Explain in detail how clustering performed using K-means clustering algorithm is. *13 K2 CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Discuss the principles of XML retrieval and how XML structure supports efficient querying. *15 K2 CO6*

OR

b) Explain the working of a web crawler and describe the challenges involved in web indexing. *15 K2 CO6*