CBCS SCHEME

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BAI515B

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Information Retrieval

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the high level view of the software architecture of an IR system with a neat labelled block diagram.	10	L2	CO2
	b.	Explain the processes of retrieval and ranking of documents.	10	L2	CO3
		OR			
Q.2	a.	Explain the following terms: (i) Query specification (ii) Query reformulation	08	L3	CO3
	b.	Explain the visualization in search interfaces.	12	L2	CO1
		Module – 2			
Q.3	a.	With a neat diagram, explain the taxonomy of IR models.	10	L3	CO3
	b.	Explain the following with reference to the Classic Information Retrieval: (i) The Boolean Model (ii) Term Weighting	10	L3	CO2
		OR			
Q.4	a.	Explain the Fuzzy Information Retrieval approach in detail.	10	L2	CO2
	b.	Explain the following models briefly: (i) Neural Network Model (ii) Latent Semantic Indexing Model	10	L3	CO3
		Module – 3			
Q.5	a.	Explain precision and recall for a given information request 'I'.	08	L2	CO1
	b.	Explain explicit and implicit feedback information in detail.	12	L3	CO2
		OR			
Q.6	a.	Explain implicit feedback through Global Analysis.	10	L2	CO2
	b.	Explain the following terms with reference to the text properties: (i) Information theory (ii) Modeling Natural Language (iii) Text Similarity	10	L3	CO3
		Module – 4			
Q.7	a.	Explain Full Inverted Indexes in detail with suitable example.	10	L2	CO2
	b.	Explain the following: (i) Signature Files (ii) Tries and suffix trees	10	L3	CO3
		OR			

Q.8	a.	Explain suffix trees and suffix arrays.	08	L2	CO2
	b.	Explain the following: (i) Faster Bit-Parallel Algorithms (ii) Multi-dimensional Indexing	12	L4	CO4
		Module – 5			
Q.9	a.	Explain Search Engine Architecture.	10	L3	CO2
	b.	Explain the cluster based architecture for the search module with its key components briefly.	10	L3	CO3
		OR			
Q.10	a.	Explain the XML Retrieval Evaluation in detail.	12	L1	CO2
	b.	Write notes on: (i) Structure of Web graph (ii) Link based ranking	08	L3	CO4

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