[M19CST1102]

I M. Tech I Semester (R19) Regular Examinations
Advanced Data Structures
Department of Computer Science and Engineering
MODEL QUESTION PAPER

TIME: 3 Hrs.   **Max. Marks: 75 M**

Answer **ONE Question** from **EACH UNIT**

All questions carry equal marks

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			CO	KL	M
		UNIT - I			
1.	a).	What is Abstract data type? Explain Implementation of Dictionaries	1	2	8
	b).	Explain Separate Chaining with example	1	2	7
		OR			
2.	a).	Following elements are inserted into an empty hash table with hash function $f(x) = x\% 17$ and quadratic probing. Explain. 58, 48, 79, 46, 54, 32, 24, 19, 18.	1	3	8
	b).	What is the importance of Dble hashing technique	1	2	7
		UNIT - II			
3.	a).	What is the need of Randomizing data structure? Give an example	2	2	7
	b).	Explain Search Operation algorithm on Skip Lists.	2	2	8
		OR			
4.	a).	Explain Probabilistic analysis of Skip Lists with example	2	2	7
	b).	Explain Update operations on Skip Lists	2	2	8
		UNIT - III			
5.	a).	Explain briefly abt Binary Search tree	3	2	8
	b).	Describe Red Balck tree algorithm with example	3	2	7
		OR			
6.	a).	What is AVL tree? Show the result of inserting 3 , 1 , 4 , 6 , 9 , 2 , 5 , 7 into an initially empty AVL tree?	3	3	8
	b).	Differentiate B-trees and 2-3 Trees with example	3	2	7
		UNIT - IV			
7.	a).	Write abt Boyer -Moore Algorithm and explain in detail	4	2	8
	b).	What is Longest Common Subsequence Problem(LCS)	4	2	7
		OR			
8.	a).	List the advantages and disadvantages of Tries	4	2	7
	b).	Explain abt Brute -Force Pattern Matching	4	2	8
		UNIT - V			
9.	a).	Write a brief notes Two Dimensional Range Searching	5	2	7
	b).	How to Construct a Priority Search Tree? Explain in detail.	5	2	8
		OR			
10.	a).	Discuss Recent trends in Hashing and Trees	5	2	8
	b).	Explain K-D Trees in Detail with example	5	2	7

CO: Crse tcomeKL: Knowledge LevelM: Marks