

[M19 IT 1102]
RAJU ENGINEERING
I M. Tech I Semester (R19) Regular Examinations
ADVANCED DATA STRUCTURES
Department of Information Technology
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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UNIT - I					
1.	a).	Identify the basic requirements to achieve good Hashing mechanism.	1	3	8
	b).	Classify different collision resolution techniques	1	4	7
OR					
2.	a).	Apply Following elements 76, 40, 48, 05, 55 to inserted into an empty hash table with hash function $f(x) = x \% 7$ for quadratic probing.	1	3	8
	b).	Distinguish the importance of Dble Hashing with example.	1	4	7
UNIT - II					
3.	a).	Analyze deterministic Skip Lists	2	4	7
	b).	Identify Update Operations on Skip Lists.	1	3	8
OR					
4.	a).	Identify Search operations on Skip lists.	1	3	7
	b).	Analyze Probabilistic Analysis of Skip Lists.	1	4	8
UNIT - III					
5.	a).	Construct Binary Search tree with values 13, 3, 4, 12, 14, 10, 5, 1, 8, 2, 7, 9, 11, 6, 18	4	4	8
	b).	Construct Red Black tree algorithm with example	4	4	7
OR					
6.	a).	Construct a AVL trees, using the result of inserting values 3, 1, 4, 6, 9, 2, 5, 7 into an initially empty AVL tree?	4	4	8
	b).	Compare B-trees and 2-3 Trees with example	2	4	7
UNIT - IV					
7.	a).	Analyze Boyer-Moore Algorithm with some example	3	4	8
	b).	Analyze Longest Common Subsequence Problem(LCS)	3	4	7
OR					
8.	a).	List the advantages and disadvantages of Tries	3	4	7
	b).	Analyze Brute-Force Pattern Matching	3	4	8
UNIT - V					
9.	a).	Apply Two Dimensional Range Searching	4	3	7
	b).	Construct a Priority Search Tree with example	4	4	8
OR					
10.	a).	Identify Recent trends in Hashing and Trees	4	3	8
	b).	Construct K-D Trees with example	4	4	7