RVR & JC COLLEGE OF ENGINEERING (AUTONOMOUS):: CHOWDAVARAM

II/IV B.Tech., (CSE) ASSIGNMENT TEST - II Time: 45 Minutes

2021-22' (4th Semester) Max.Marks: 12

CSH11 – ADVANCED DATA STRUCTURES

				RBT Level
1	Write and illustrate the steps of an algorithm that performs deletion on a red-black tree. Provide its time complexity analysis.	6M	(CO3)	2
2	Consider the set of keys {12, 23, 32, 45, 53, 63, 73, 86, 90, 102, 117, 129, 137, 142, 159, 168}. Draw a (2,4) tree storing the keys using the fewest number of nodes. Also, draw a (2,4) tree storing the keys using the maximum number of nodes.	6M	(CO3)	3
3	Draw a figure illustrating the comparisons done by the Boyer Moore pattern matching algorithm for the case when the text is " aaabaadaabaaa" and the pattern is " aabaaa ". Do not count the comparisons made to compute the last function.	6M	(CO4)	3
4	Show how to draw the compact representation of the suffix trie for the string " minimize minime "	6M	(CO4)	3
5	Give an example of a text T of length 'n' and a pattern P of length 'm' that force the brute-force pattern matching algorithm to have a running time that is $\Omega(nm)$. Justify your answer.	6M	(CO4)	4
6	Explain how to construct a priority search tree from a set S of n two dimensional items.	6M	(CO5)	2