

JAMIA HAMDARD
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF ENGINEERING SCIENCE & TECHNOLOGY

Advanced Data Structure

MT CSE/DS/CFIS 102

M.Tech. Ist semester 2024

New Delhi-110062

Duration: 2:30 hours.

Max. Marks: 60

Section A (5*4 =20)
All Questions are compulsory

Q. No.	Questions	CO	BL
Q1.	Discuss the advantages and disadvantages of skip list. Discuss any real life application of skip list.	CO1	BL5
Q2.	Differentiate between QUAD Tree and QD Tree. Give one example for each.	CO2	BL4
Q3.	How Text Processing techniques can be used in search engine optimization. Give example.	CO2	BL3
Q4.	Discuss Collision Resolution Techniques with example.	CO3	BL 2,4

Section B (10*4=40)
Attempt any 4 questions

Q5.	Explain with the help of suitable figures example and Discuss the similarities and differences in Red Black Tree and Splay Tree.	CO4	BL5,6
Q6.	Discuss the relevance of Balance Factor in any binary tree with 12 nodes. Perform rotations and convert the tree in to height balanced trees.	CO2	BL6
Q7.	Justify with the help of examples that Data Dictionaries and Hash Tables are more efficient than link lists and arrays.	CO3	BL1,2
Q 8.	Discuss the 2-D Range in comparison with any other search technique. Compare it with Priority Range Tree.	CO4	BL4
Q9.	What do you mean by Good suffix and Bad heuristics, Which algorithm in Text Processing are these used. Demonstrate with an example.	CO3	BL4,5
Q 10.	Differentiate between trees and tries, Give one suitable example for each.	CO3	BL 3,4