

CS3101 - COMPUTATIONAL THINKING LAB

BATCH – Q

WEEK – 12 – 21.12.2023

ANALYSIS OF SEARCH ALGORITHM

OBSERVATION & EXECUTION

1. Write a ‘C program & Analysis’ the working of the algorithm for the following.

a. Linear Search

b. Binary Search

Analysis should include the following scenario.

S. No.	Search Algorithm	Test Case	Run Time	No. of Comparisons	No. of Partitions
1.	Linear Search	Search Element is found at the beginning			
		Search Element is found at the end			
		Search Element is found at the middle			
		Search Element is not found			
2.	Binary Search	Search Element is found at the beginning			
		Search Element is found at the end			
		Search Element is found at the middle			
		Search Element is not found			

SPOT

1. Write a ‘C program & Analysis’ the working of the algorithm for the following.

c. Binary search for sorted and unsorted list.

Analysis should include the following scenario.

S. No.	Search Algorithm	Test Case	Run Time	No. of Comparisons	No. of Partitions
1.	Binary Search	Fully Sorted List			
		Partially Sorted List			
		Fully unsorted List			