

GLS University
Faculty of Computer Applications and IT
Data Structure

IMSCITSem – III
Theory Assignment – V
Date of Assignment: 5/09/2018

Q-1	Answer the following questions. (1,2,3 compulsory and 3(any one))
1.	What is sorting and searching in data structure?
6.	What is linear search and Binary search?
3.	30 7 15 25 4 29 88 56 46 70 Perform the 1. Quick sort 2. Merge Sort 3. Insertion sort 4. Selection sort 5. Bubble sort with Number of passes and steps
4.	10,20,2,5,6,8,18,12,3,22 Perform the binary search and linear search on above data.
Q-2	Fill in the blanks.
1.	Sorting means_____ .
2.	In worst case insertion sort has a _____ running time.
3.	The running time of merge sort in the average and the worst case is_____ .
4.	Insertion sort is performed on _____ time of an array.
5.	For insertion sort the _____ case occurs when the array is already sorted.
6.	In Quick sort last element is known as _____.
Q-3	True and False
1.	Selection sort has a linear running time complexity.
2.	The running time of merge sort in the average case and the worst case is $O(n \log n)$.
3.	Bubble sort is not a technique of sorting.
4.	In bubble sort method total $n-1$ pass required to sort a table.
5.	Insertion sort we have to present a particular element at appropriate position.

