

4marks

1. List out the types of data structures.
2. Explain in detail, the significance and limitations of Big O.
3. Discuss the complexity of insertion sort.
4. Discuss the complexity of bubble sort.
5. Discuss the complexity of binary search.

12marks.

1. Write an algorithm for binary search with an example.
2. Explain in detail, bubble sort with an example.
3. Explain in detail, insertion sort algorithm with example.
4. Write a program to sort an array using insertion sort.
5. Sort the following sequence of numbers in ascending order using bubble and show the each pass {42, 34, 75, 23, 21, 18, 19, 67, 78}
6. Apply binary search algorithm in a program to search an element in the data structure. Using binary. Demonstrate the set of numbers {10, 8, 2, 7, 3, 4, 9, 1, 6, 5}