SATHYABAMA
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ASSIGNMENT – II

COMMON TO CSE and IT

Program : B.E(CSE)/B.Tech(IT) **Max. Marks : 15**
Course : Data Structures
Course Code : SCSA1203 **Sem : II**
Batch : 2020 - 2021 **Due Date : 07.06.2021**

Part-A **Answer ALL the questions** **(5×1=5)**

Multiple Choice Questions and Fill in the Blanks

1. Which of the following sorting algorithm is of divide-and-conquer type?

(a) Bubble Sort

(b) Insertion Sort

(c) Quick Sort

(d) All of the given options

2. …….. searching techniques works efficiently on the sorted list
3. Insertion sort algorithm consist of ……. Passes
4. …… sort is less efficient than the other sorting algorithms
5. Which of the following is not the required condition for a binary search algorithm?

(a) The list must be sorted

(b) There should be direct access to the middle element in any sublist

(c) There must be a mechanism to delete and/or insert elements in the list.

(d) Number values should only be present

Part-B **Answer ALL the questions** **(5×1=5)**

Short Answers

1. Mention the type of searching and define linear search.
2. What are the advantages of insertion sort
3. Define bubble sort.
4. Mention some methods for choosing the pivot element in quick sort?
5. What is merge sort?

Part-C **Long question** **(1×5=5)**

1. Write an algorithm to implement merge sort with suitable example.