

Match the following:

1. Time Complexity	1. How long does it take to find a solution
2. Space Complexity	2. How much memory need to perform the operation
3. Accuracy	3. producing the correct solution
4. Completeness	4. Is the strategy guaranteed to find the solution when there in one

The time factor when determining the efficiency of algorithm is measured by_____.

- ☐ counting the number of statements
- ☐ counting the kilobytes of algorithm
- ☐ counting microseconds
- ✓ ☒ counting the number of key operations

The Team leader wanted Raj to develop an efficient algorithm for an appliation. To check the efficiency of the algorithm which Raj developed, what are the two main factors he needs to consider?

- ☐ Complexity and capacity
- ☐ Data and space
- ✓ ☒ Time and space
- ☐ Processor and memory

Which of the following is the correct list where we can apply Binary search algorithm.

- ☐ Sorted linked list
- ☐ None of these options
- ✓ ☒ Sorted Array
- ☐ Unsorted linked list

What is the Worst case scenario occur in linear search algorithm?

- ☐ Item is the last element in the array
- ☐ Item is not in the array at all
- ☒ Item is the last element in the array or is not there at all
- ☐ Item is somewhere in the middle of the array

How many number of comparisons are required in insertion sort to sort a file if the file is sorted in reverse order?

- ☐ $N/2$
- ☐ N
- ☐ $N-1$
- ☒ N^2

The number of interchanges required to sort 6, 2, 7, 3 5 in ascending order using Bubble Sort is

- ☐ 6
- ☒ 5
- ☐ 7
- ☐ 3


Choose the correct sorting algorithm which is Efficient for smaller data sets but not for larger sets.

- ☒ Insertion Sort
- ☐ Heap Sort
- ☐ Quick Sort
- ☐ Bubble Sort
- ☐ Merge Sort

Match the following items with their descriptions:

1. Insertion Sort	1. Best for small data sets
2. Heap Sort	2. Complete Binary Tree based
3. Quick Sort	3. Pivot value
4. Bubble Sort	4. Compare Adjacent data

The running time of quick sort depends heavily on the selection of

-  ☒ Pivot element
- ☐ No of inputs
- ☐ Arrangement of elements in array
- ☐ Size of elements