Read the question carefuly and choose the correct answer for the given options

Give is int pr[] = {1,2,3,5,7,11, 13}. It is initialization of array. (1 Mark)

OPTIONS

true

false

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47 : 20

OPTIONS

Read the question carefuly and choose the correct answer for the given options

Determining how a function grows faster or slower as compared to other function, identify notations to be used.

All can be used

Big O

Big Theta

Big Omega

OPTIONS

Read the question carefuly and choose the correct answer for the given options

Identify the data structure best suited for hierarchical relationship between elements (1 Mark).

Stack

Tree

Priority Queue

Array

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48:39

Read the question carefuly and choose the correct answer for the given options

Select appropriate choice to fill. Sparse matrix have ____: (1 Mark)

OPTIONS

None

higher dimension

many zero enteries

many non zero enteries

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CU

46:13

OPTIONS

Read the question carefuly and choose the correct answer for the given options

Sorted list is an essential prerequisite to apply binary search. (1 Mark)

true

false

OPTIONS

Read the question carefuly and choose the correct answer for the given options

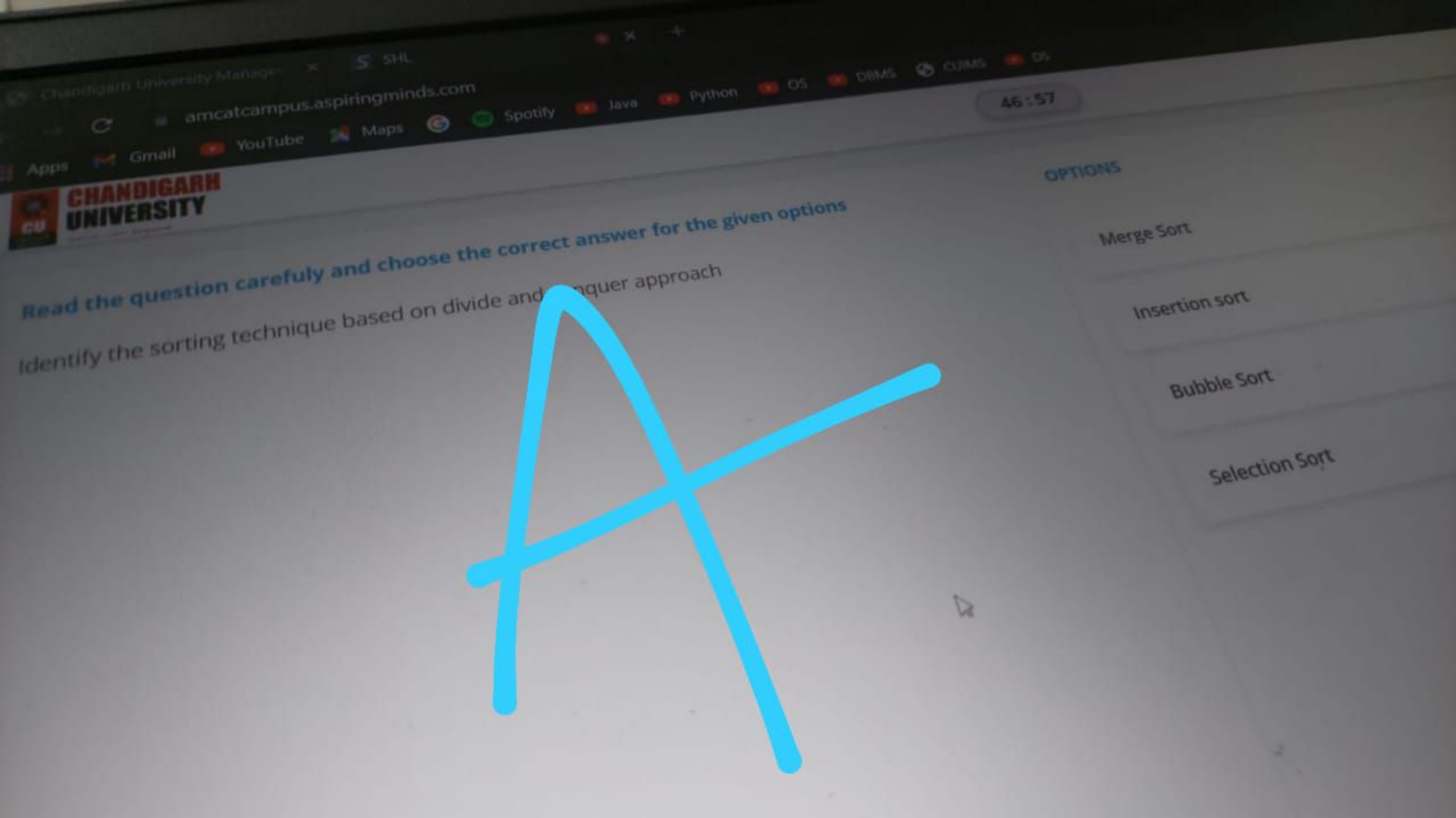Array is A[5] and elements ar 1,2,3,4,5. Choose the accessed element with A[3-1] statement. (1 Mark)

4

Wrong way to access array element

2

3

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Read the question carefuly and choose the correct answer for the given options

Identify the sorting technique based on divide and conquer approach

OPTIONS

Merge Sort

Insertion sort

Bubble Sort

Selection Sort

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48:06

Read the question carefuly and choose the correct answer for the given options

OPTIONS

Choose most appropriate answer. How to read some element from any location within fixed time complexity (O(1))

Irrespective of implementation it is possible always

Not possible

When list is implemented using array

When list is implemented using pointers

PASSAGE

Searching is technique to find an item in a given list of elements. There are two type of search techniques names as Linear and Binary search. These two are applicable to a give   pr   ed certain conditions or rules.

Read the question carefuly and choose the correct answer for the given options

When a given list of items is not sorted and we need to find an element, the most suitable approach is Binary Search.

OPTIONS

true

false

SKIP   SUBMIT ANSWER

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43 : 24

Exit

PASSAGE

Searching is technique to find an item in a given list of elements. There are two type of search techniques names as Linear and Binary search. These two are applicable to a given list provided certain conditions or rules.

Read the question carefuly and choose the correct answer for the given options

Given array A[] = (1,2,3,4,5). Select time complexity of Binary Search in Worst Case.

OPTIONS

O(n)

O(nlogn)

O(1)

O(logn)

SKIP   SUBMIT ANSWER

30 31 32 33 34 35 36 37 38 39 40

Type here to search

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PASSAGE

Searching is technique to find an item in a given list of elements. There are two type of search techniques names as Linear and Binary search. These two are applicable to a given list provided certain conditions or rules.

Read the question carefuly and choose the correct answer for the given options

Applying linear search on an array, if worst case is $O(n)$. Is it possible to reduce it to $O(1)$ if element is found at last.

OPTIONS

true

false

SKIP   SUBMIT ANSWER

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43 : 15   ⛶ ❓ ➦ Exit ☰

PASSAGE

Searching is technique to find an item in a given list of elements. There are two type of search techniques names as Linear and Binary search. These two are applicable to a given list provided certain conditions or rules.

Read the question carefuly and choose the correct answer for the given options

We are given a data structures implemented using pointers or linked list. We are advised not to use Binary Search. Select answer.

OPTIONS

true

false

30 31 32 33 34 35 36 37 38 39 40

SKIP   SUBMIT ANSWER

PASSAGE

Searching is technique to find an item in a given list of elements. There are two type of search techniques names as Linear and Binary search. These two are applicable to a given list provided certain conditions or rules.

Read the question carefuly and choose the correct answer for the given options

Identify the space complexity if binary search is implemented recursively

OPTIONS

O(1)

O(n)

O(logn)

O(n^2)

SKIP   SUBMIT ANSWER

PASSAGE

Asymptotic Notation is used to represent the time complexity of an algorithm. There are different types of such notations. Each type represents separate case. Based on your knowledge on this concept, answer the questions:

Read the question carefuly and choose the correct answer for the given options

Identify tight bound notation

OPTIONS

Big O

Theta

Omega

None

SKIP   SUBMIT ANSWER

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43 : 48

Exit

PASSAGE

Searching is a technique to find an item called as key, in a given list of items. Items are sroted in some data structure. There are different search thechiques like binary search and linear search. These are good for special cases. They may exhibit same or different time complexties. We need to follow a well definec procedure to perform search using any one of the above mentioned methods. Using this information, solve the questions:

Read the question carefuly and choose the correct answer for the given options

Item to search is 12. Array is: 10,12,20,32,50,55,65,80,99. Apply binary search algorithm and identify number of step/pass and index, when item is found..

OPTIONS

2,1

2,2

1,2

1,1

SKIP   SUBMIT ANSWER

28
29
30
31
32
33
34
35
36
37
38

PASSAGE

Given an array A is 25,4 . Suppose Base(A)=200 and for single element 4 bytes are taken.

Read the question carefuly and choose the correct answer for the given options

Choose number of elements in array A

OPTIONS

25

29

100

4

SKIP   SUBMIT ANSWER

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44 : 04

Exit

PASSAGE

Given an array A is 25,4 . Suppose Base(A)=200 and for single element 4 bytes are taken.

Read the question carefuly and choose the correct answer for the given options

Using row-major storage, compute the address of A[12][3]

OPTIONS

384

444

392

125

SKIP | SUBMIT ANSWER

SAGE

sider the data 30, 60, 20, 50, 40, 10 put in an array and given below algorithm:

peat step 2 and 3 varying j from 0 to n-2 passes

nd the index of the minimum value in arr[j] to arr[n-1]

et min_index=j

epeat step c varying i from j+1 to n-1

arr[i] 3. swap arr[j] with arr[min_index]

Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Which operation is used by given algorithm to sort the data elements from unsorted plac to sorted place?

OPTIONS

Swap

Insert

Delete

None of these

The given algorithm is suitable for

PASSAGE

Consider the data 30, 60, 20, 50, 40, 10 put in an array and given below algorithm:

1. Repeat step 2 and 3 varying j from 0 to n-2 passes
2. Find the index of the minimum value in arr[j] to arr[n-1]
   a. Set min_index=j
   b. Repeat step c varying i from j+1 to n-1
   c. If arr[i] 3. swap arr[j] with arr[min_index]

OPTIONS

Small Datasets

Big datasets

Both of these

None of these

PASSAGE

A company contains a membership file which contains following information about the employees in the company: **Name, Address, Phone No, Age, Sex**

Suppose the company wants to invite only one specific employees in a meetings, the operation that will be performed on the membership file for same?

OPTIONS

Traversal

Searching

Insertion

Deletion

Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

What is the best case time complexity for give algorithm?

AGE

...ider the data 30, 60, 20, 50, 40, 10 put in an array and given below algorithm:

...peat step 2 and 3 varying j from 0 to n-2 passes

...d the index of the minimum value in arr[j] to arr[n-1]

...t min_index=j

...peat step c varying i from j+1 to n-1

...arr[i] 3. swap arr[j] with arr[min_index]

OPTIONS

O(n^2)

O(log n)

O(nlogn)

None of these