

**PASSAGE**

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

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

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

2. Set  $min\_index=j$

3. Repeat step c varying  $i$  from  $j+1$  to  $n-1$

4. If  $arr[i] < arr[min\_index]$  swap  $arr[i]$  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.

The given algorithm is suitable for

**OPTIONS**

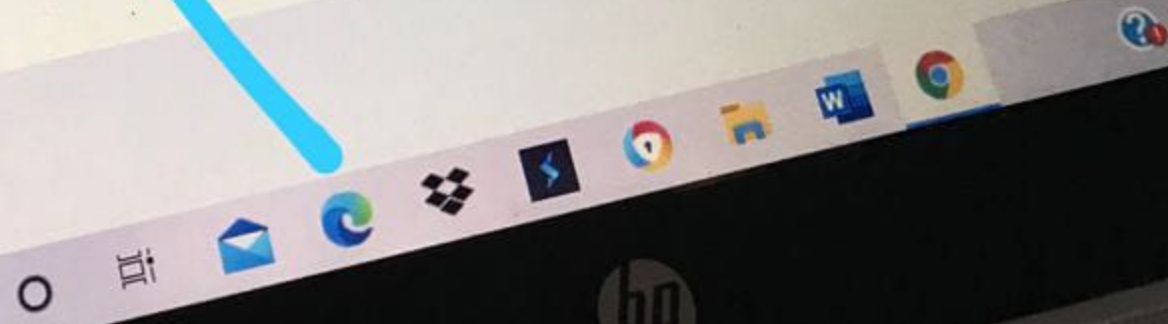
Small Datasets

Big datasets

Both of these

None of these

A



### PASSAGE

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

B

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.

Suppose the company wants to invite only one specific employee in a meeting. the operation that will be performed on the membership file for same?

### OPTIONS

Traversal

Searching

Insertion

Deletion



PAGE

Consider the data 30, 60, 20, 50, 40, 10 put in an array and given below algorithm:  
Repeat step 2 and 3 varying  $j$  from 0 to  $n-2$  passes  
Find the index of the minimum value in  $arr[j]$  to  $arr[n-1]$   
Let  $min\_index=j$   
Repeat 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.

What is the best case time complexity for give algorithm?

OPTIONS

$O(n^2)$

$O(\log n)$

$O(n \log n)$

None of these

A

PAGE

Consider the data 30, 60, 20, 50, 40, 10 put in an array and given below algorithm:  
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Find the index of the minimum value in  $arr[j]$  to  $arr[n-1]$   
Let  $min\_index=j$   
Repeat 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.

What will be the output array after second pass of sorting as explained in the algorithm?

OPTIONS

30, 60, 20, 50, 40, 10

10, 60, 20, 50, 40, 30

10, 20, 60, 50, 40, 30

None of these



Consider the data 30, 60, 20, 50, 40, 10 put in an array and given below algorithm:  
 Repeat step 2 and 3 varying  $j$  from 0 to  $n-2$  passes  
 Find the index of the minimum value in  $arr[j]$  to  $arr[n-1]$   
 Let  $min\_index=j$   
 Repeat step c varying  $i$  from  $j+1$  to  $n-1$   
 If  $arr[i] < arr[min\_index]$  then 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.

What is the type of sorting explained in the given algorithm?

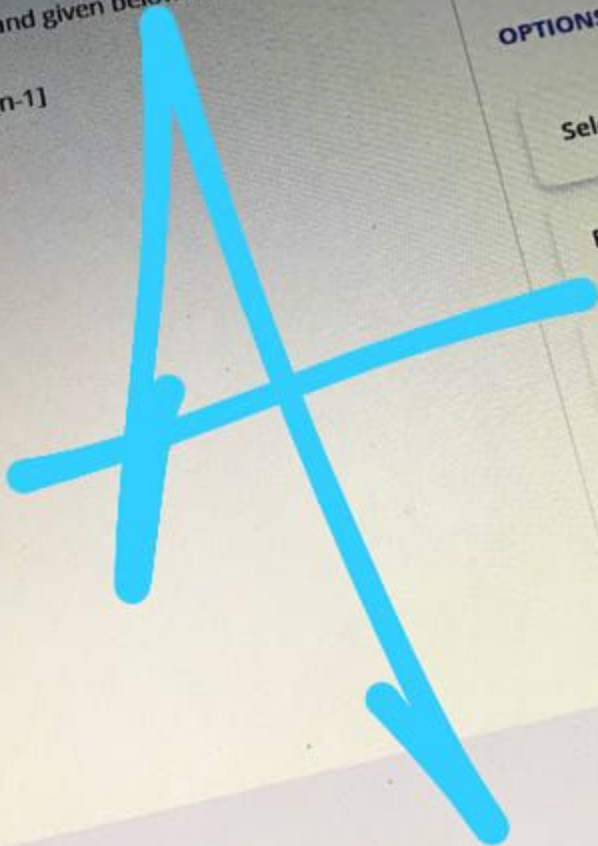
**OPTIONS**

Selection

Bubble

Insertion

Merge



for following piece of code

```
node {  
    int *next;  
}  
int LinkedList(struct node *p)  
(p != NULL)  
{  
    printf("%d ", p->value);  
    p = p->next;  
}
```

```
main()  
{  
    struct node *head;  
    struct node *one = NULL;  
    struct node *two = NULL;  
    struct node *three = NULL;  
    one = malloc(sizeof(struct node));  
    two = malloc(sizeof(struct node));  
    three = malloc(sizeof(struct node));  
}
```

D

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 does following piece of code interpret? one->next = two; two->next = three; three->next = NULL;

### OPTIONS

Node one is pointing to two

Node two is pointing to three

Node three is pointing to NULL

all of these



MESSAGE

Consider following piece of code

```
struct node {  
    int value;  
    struct node *next;  
};  
  
void printLinkedList(struct node *p)  
{  
    while (p != NULL)  
    {  
        printf("%d ", p->value);  
        p = p->next;  
    }  
}
```

```
int main()  
{  
    struct node *head;  
    struct node *one = NULL;  
    struct node *two = NULL;  
    struct node *three = NULL;  
    one = malloc(sizeof(struct node));  
    two = malloc(sizeof(struct node));  
    three = malloc(sizeof(struct node));  
}
```

A

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 will following piece of code do ? one = malloc(sizeof(struct node)); two = malloc(sizeof(struct node)); three = malloc(sizeof(struct node));

### OPTIONS

Three Nodes will be generated and addresses will be saved in one, two and three.

Values are assigned to one, two and three

Compile Error

None of these

MESSAGE

Consider following piece of code

```
struct node {
    int value;
    struct node *next;
};

void printLinkedList(struct node *p)
{
    while (p != NULL)
        printf("%d ", p->value);
    p = p->next;
}

int main()
{
    struct node *head;
    struct node *one = NULL;
    struct node *two = NULL;
    struct node *three = NULL;
    one = malloc(sizeof(struct node));
```

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 do you interpret from following piece of code? struct node  
 { int value;  
 struct node \*next;  
 };

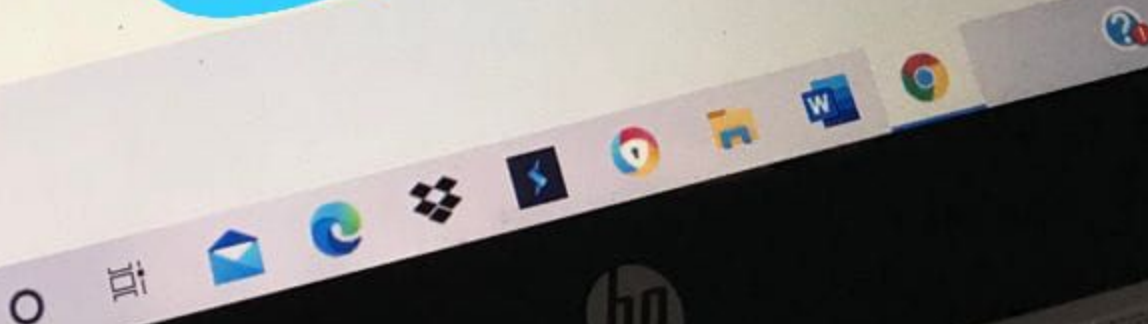
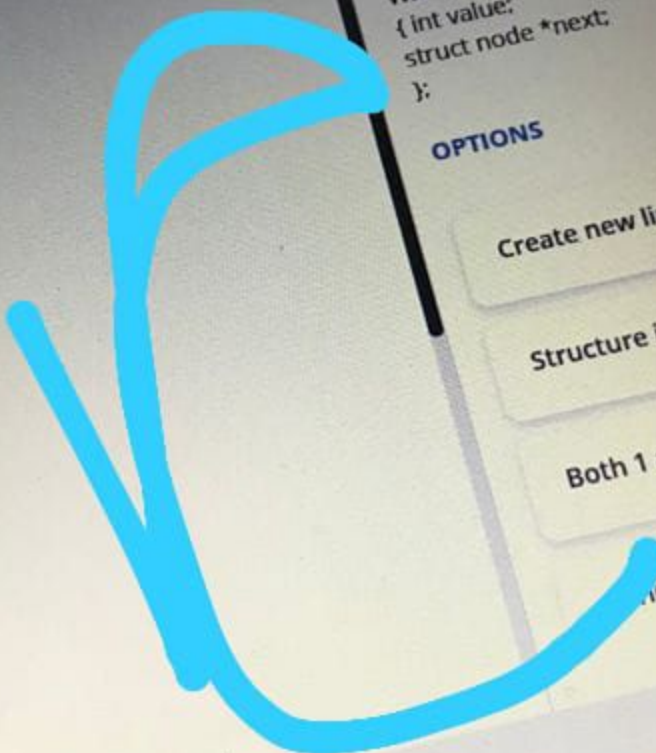
OPTIONS

Create new linked list node

Structure is used to create used defined data type for linked list node

Both 1 and 2

None of these





56:31

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 the questions.

How many columns are there in the given matrix?

#### OPTIONS

26

5

36

None of these

#### PASSAGE

An array  $X[-15.....10, 15.....40]$  requires one byte of storage. If beginning location is 1500.

A

to search

**PASSAGE**

An array X [-15.....10, 15.....40] requires one byte of storage. If beginning location is 1500.

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 the questions.

What is the type of this matrix?

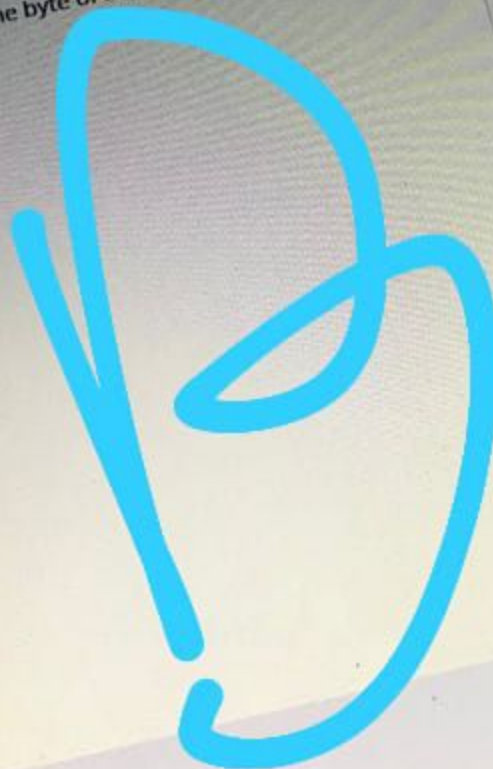
**OPTIONS**

1D

2D

3D

None of these





### PASSAGE

Consider following piece of code

```
struct node {  
    int value;  
    struct node *next;  
};  
void printLinkedList(struct node *p)  
{ while (p != NULL)  
  { printf("%d ", p->value);  
    p = p->next;  
  }  
}  
int main()  
{ struct node *head;  
  struct node *one = NULL;  
  struct node *two = NULL;  
  struct node *three = NULL;  
  one = malloc(sizeof(struct node));
```

56:24

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 the questions.

What is the function all about?  
**void printLinkedList(struct node \*p)**  
{  
 while (p != NULL)  
 { printf("%d ", p->value);  
 p = p->next;  
 }  
}

### QUESTIONS

Print all the elements in the linked list

Print the elements in array

Print the element of linked list if "p" is equal to

**PASSAGE**

An array X [-15.....10, 15.....40] requires one byte of storage. If beginning location is 1500.

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 the questions.

How many rows are there in the given matrix?

**OPTIONS**

26

5

36

None of these

A



PASSAGE

An array X [-15.....10, 15.....40] requires one byte of storage. If beginning location is 1500.

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.

Calculate total number of elements in given array?

OPTIONS

676

766

26

None of these

A

**PASSAGE**

An array X [-15.....10, 15.....40] requires one byte of storage. If beginning location is 1500.

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 base address of this matrix?

**OPTIONS**

676

1500

26

None of these

B



### PASSAGE

Consider following piece of code

```
struct node {  
    int value;  
    struct node *next;  
};  
void printLinkedList(struct node *p)  
{ while (p != NULL)  
  { printf("%d ", p->value);  
    p = p->next;  
  }  
}  
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{ struct node *head;  
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}

### QUESTIONS

Print all the elements in the linked list

Print the elements in array

Print the element of linked list if "p" is equal to

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

Given is  $l(n) = O(m(n))$ . Then  $t * l(n) = O(m(n))$ , provided  $t$  is constant. Select correct answer defining it:

## OPTIONS

Symmetric Property of Asymptotic

General Property of Asymptotic

Reflexive Property of Asymptotic

Transitive Property of Asymptotic

B



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

Identify when linear search method gives worst time complexity (1 Mark)

OPTIONS

None

Elements are sorted and item to search is 1st element

Elements may be in any order and item to search is not found

Element are unsorted and item to search is 1st element

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

Identify that where Selection and Quick sort belong to a common sorting method category (1 Mark)

#### OPTIONS

Interchange Sort

Sort having  $(n \cdot \log n)$  complexity

Average time complexity is quadratic

Divide and Conquer Sort

A



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

Given array is 10,20,30,40,55. Delete 30. Compute the time complexity worst case

**OPTIONS**

$O(1)$

$O(n)$

$O(\log n)$

$O(n^2)$

Review Later

SUBMIT ANSWER

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

An array A is declared with size  $n=10$  and initial elements are 1,2,3,4,5,6,7,8,9,10. Apply traversal and select the time complexity

OPTIONS

$O(n)$

$O(1)$

$O(2)$

$O(\log n)$

Review Later





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

An array A is declared with size  $n=10$  and initial elements are: 1,2,3,4,5,6,7,8,9,10. Apply insertion of one more element at beginning, then select the worst case time complexity and size of resulted array

### OPTIONS

$O(1), 11$

$O(n), 11$

$O(n), 10$

B