Let C be a new node is to be inserted into a singly linked list between the two given nodes, say, A and B. Which of the following nodes will be updated?

- A and B
- A and C
- A, B, and C
- B and C

An array A holds following 6 elements. 77, 42, 35, 12, 101, 5. The elements are placed from index number 1 to index number 6. Which of the following is the index of 5 after second pass of bubble sort?

- 3
- 4
- 5
- 6

For an array A with indexes from 1 to n. The following code signifies? A[I+1]=A[I]

- The element at I index is copied to I+1 index.
- The element at I+1 index is copied to I index.
- The subscript of an array can never include operators like '+', etc.

………. Algorithm involves putting an element in the appropriate place in a sorted list and thus yielding a larger sorted order list.

- Selection Sort
- Bubble Sort
- Insertion Sort
- None of the mentioned follows this mechanism.

Binary Search algorithm does not require this condition to be true?

- Direct access is required to the middle element.
- Deletion and insertion in the array must be possible.
- The elements are required to be sorted.

```
ptr=start;
while(ptr!=NULL)
{
    if(ptr->data==d)
        break;
    ptr=ptr->next;
}
if(ptr==NULL)
{
    printf("True");
}
```

- True will be displayed when the Element d is present at the beginning of the linked list.
- True will be displayed when the Element d is present at the last node of the linked list.
- True will be displayed when the Element d is not present in the linked list.
- The given code will never display True.

The UB of an array is 2456 and the lower bound is 1477. How many total number of elements can be stored in this array?

- 978
- 979
- 980
- 981

For a character array with the lower index as 0, the address of 5th element will be calculated as(here BA is the Base Address):

- BA+5
- BA+4
- BA+3
- BA+6

If the lower bound of the array X is 5, the address of lower bound is 1200, and w = 4, find Loc(X[8]) ?

- 1212
- 1200
- 1215
- Sufficient data not given in the question.

Which of the following statement is false about array insertion?

- Insert item at the back is easy if there is a space.
- Insert item in the middle requires the movement of all elements to the left.
- The complexity of the linear search algorithm is O(n).
- Insertion of the new element in the array is expensive when the size of the array is large.

Consider that you are performing a binary search on the sorted array DATA to search an element ITEM. In case when ITEM < DATA[MID], which of the following should be performed?

- END = MID-1
- BEG= MID+1
- END=MID+1
- BEG=MID-1

```
int a = 0, i = N;
while (i > 0)
{
a += i;
i /= 2;
}
```

- O(N)
- O(Sqrt(N))
- O(N / 2)
- O(log N)

Consider the following matrix is stored in a row-major order, which of the following order is correct?

a b c
d e f
g h i

- Ihgfedcba
- abcdefghi
- cfibehadg
- adgbehcfi

The data structure allowing the deletion from the front and insertion from rear is?

- Stacks
- Queues
- Dequeues
- Tree

Consider we have n data elements and each element has an edge towards every other data element. Which of the following data structure is most suitable in this case?

- Graph
- Tree
- Network
- Linked List

Consider a singly linked list pointed by START node. What does this line of code mean? START=START->NEXT.

- Start is now pointing to the second node
- Start is pointing to the first node.
- The first node is no longer accessible.
- More than one options are true.

Which of the following is not the application of linked lists?

- Previous and next page in web browser
- Music Player
- Image Viewer
- Implementing sorting using binary sort

Consider that the ptr is pointing to a node in the linked list. We want to delete the node highlighted in red color in the below diagram. Which of the following code line is true?



Selected Node
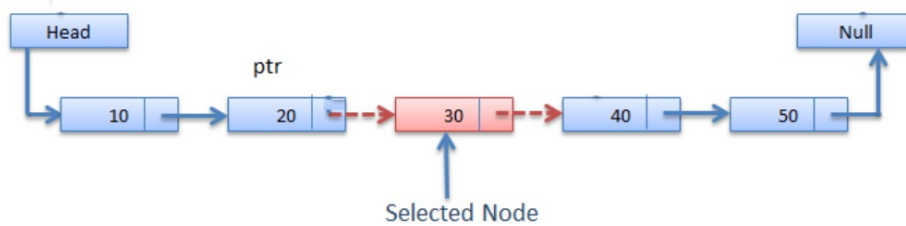
- ptr=ptr->next
- ptr->next=(ptr->next)->next
- ptr->next=(ptr-)>next->next
- ptr->next=ptr->next

Which of the following represents condition for overflow?

- Start=NULL
- Avail=NULL
- Start->link=NULL

The first and the last nodes of an unsorted linked list are pointed by START and END respectively. Which of the given operations can be implemented with O(1) complexity?

i) Inserting node at the beginning of the linked list
ii) Inserting node at the end of the linked list
iii) Deleting the first node of the linked list
iv) Deleting the last node of the linked list

- I and II
- I and III
- I,II and III
- I,II and IV

The linked lists are the group of nodes. Each node holds minimum two parts. First part contains the data and the second part is?

- Pointer to character
- Pointer to integer
- Pointer to node
- Node

Which of the following operation require a pointer to the just previous element of the linked list?

- Insertion in the middle
- Deletion in the middle
- Deletion of the first node
- Insertion in the end

The complexity of adding a new element at the end of the linked list is:

- O(n)
- O(NlogN)
- O(1)
- O(logN)

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```
struct Demo
{
int data;
struct Demo * next;
}

struct Demo *ptr;
```

Which of the following c code is used to create new node?

- ptr=(struct Demo*)malloc(sizeof(struct Demo));
- ptr=(struct Demo*)malloc(struct Demo);
- ptr=(struct Demo*)malloc(sizeof(struct Demo*));
- ptr=(struct Demo)malloc(sizeof(struct Demo));

**Consider the following operation performed on a stack of size 5.**
Push(1);
Pop();
Push(2);
Push(3);
Pop();
Push(4);
Pop();
Pop();
Push(5);
Number of elements in array after these operations are performed?

- 1
- 2
- 3
- 4

A 2 dimensional array A[20, 10] has base address 100, Each element requires 4 words in memory . Calculate the memory address of A[11, 5] considering that the elements are stored in row major order.

- 560
- 565
- 570
- 575

In case the last node of the linked list starts pointing to the second last element, then,

- It becomes a circular linked list.
- Tracing end of linked list will become difficult.
- It becomes a doubly linked list.
- This is never possible.

Which of the following is false?

- Linked list is a flexible data structure that grows/shrinks in size.
- Linked list is a non linear data structure
- We cannot access a random element directly in a linked list.
- All of the statements are correct.

Making the start pointer to point to the last node of the singly linked list will?

- Reverse the order of nodes.
- Will give error
- The new list will hold only one element that is the last element.
- The start pointer can be made to point to 2 nodes.

Which of the following name does not relate to stacks?

- FIFO lists
- LIFO list
- PUSH
- POP

How many nodes will be traversed in order to merge two linked list A and B in same order.

- Traverse the last node of A and first node of B.
- Traverse all the nodes of A and Start of B.
- Traverse all the nodes of B
- Traverse all the nodes of A and B