1.

Let P be a Doubly Circular Linked list, Let Q be the pointer to an sentinel node x in the list which has a single node.What is the worst-case time complexity to delete the node x from the list?

A. O(n)
B. O(1)
C. O(log n)
D. None of these

Answer:B

2.

In which case test() function will return 1
Consider the function test defined below.

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

int test(node_t *trav)
{
      return ( (head == NULL) ||
                     (head ->next == NULL) ||
                      (trav->data <= trav -> next -> data));
}
```

A. When list is not empty
B. When list has only one element.
C. When bubble elements are arranged in increasing order
D. All of these

Answer:D

3.

A doubly Linked list is declared as :

```
struct node
{
	struct node *prev;
	int data;
	struct node *next;
};
```

Where prev and next represents backward and forward link to adjecent elements of the list.Which of the following code segment delete the node pointed to by X from doubly linkedlist? Assume X points neither to first nor to last element.

A. X->PREV->NEXT=X->NEXT; X->NEXT->PREV=X->PREV
B. X->PREV.NEXT=X->NEXT; X.NEXT->PREV=X->PREV
C. X.PREV->PREV=X.PREV; X->NEXT.PREV=X.PREV
D. X->PREV->NEXT=X->PREV;X->NEXT->PREV=X->NEXT

Answer:A

4.

Which of the following statements is/are correct for dynamic doubly circular queue so that insertion and deletion operations can be performed in O(1) i.e. constant time.

I. Previous pointer of front node points to the rear node.
II. Next pointer of rear node points to the front node.

A. I only
B. II only
C. Both I && II
D. Neither I nor II

Answer:C

5.

Adjency list is array where each element can be

A. First element of Linked list
B. Last element of Linked list
C. Each element can represent edge
D. A pointer which refers to first element

Answer:D