

## Practice Quiz Linklist

(1)  $p = p \rightarrow \text{next};$

(2)  $p = q;$

(3)  $q = p;$

4  $r = (p \rightarrow \text{next});$

5  $p \rightarrow \text{data} = r \rightarrow \text{data};$

6  $\text{Node} * r$   $\quad // (\text{pointer of Node type})$   
 $r = p;$   $\quad // (\text{Address of first node})$   
do {  $\quad // (\text{Traversing Linklist})$

$r = r \rightarrow \text{next};$   
 $\{ \text{while } (r \rightarrow \text{next} \neq \text{NULL})$   
 $p \rightarrow \text{data} = r \rightarrow \text{data};$

7  $r \rightarrow \text{next} = p;$

8  $(q \rightarrow \text{next}) \rightarrow \text{next} = p;$

9  $\text{Node} * \text{end}$   $// (\text{pointer of Node type}) (\text{to find last node})$   
 $\text{end} = \text{start}$   $// (\text{Address of starting node})$   
do {  $\quad // (\text{Traversing Linked List})$   
 $\text{end} = \text{end} \rightarrow \text{next}$   
 $\{ \text{while } (\text{end} \rightarrow \text{next} \neq \text{null})$   
 $\text{end} \rightarrow \text{next} = \text{start};$

10  $p \rightarrow next = q;$

```

11 Node *p, *q // Pointer of Node type
p = start // Point to starting node
q = start → next // Point to node after start
while ( q → next != NULL )
{
    // Traverse list
    if ( q → data == 'B' ) // Check for condition
    {
        p → next = q → next; // If True then
        break; // update address
    }
    else
    {
        // Keep searching
        p = p → next
        q = q → next
    }
}
free(p);
free(q); // Free memory of Node

```

```

12 Node *q // Traversing of Linked List
q = start;
while ( q → next != NULL )
{
    q = q → next;
}

```

```

13 Node *q // Pointer of Type node
q = start; // Searching Algorithm
while (q->data != 'c') // Check for
{ // Condition
    q = q->next // Advance pointer
}

```

```

14 Node *p, *q; // Pointer of Type node.
int i; // Counter for for loop
for (i=0; i<4; i++)
{
    // Create new node
    p = (Node*) malloc(sizeof(Node));
    p->next = NULL; // Set address of next node to
    // NULL.
    scanf("%c", &(p->data));
    if (Head == NULL) // If A for 0, B for 1,
    // C for 2, D for 3
    {
        head = q = p; // If first Node
    }
    else
    {
        q->next = p; // If not first
        q = q->next; // Node
    }
}

```



15 Node \*q; // Pointer of type Node  
 q = (Node\*) malloc (sizeof (Node)); // Create Node  
 q → data = 'A'; // store data  
 q → next = p; // Update <sup>address</sup> data of Node Node  
 p = q; // set New node as first

16 Node \*q, \*r; // Pointers of type Node

r = p; // Point r to starting part  
 q = (Node\*) malloc (sizeof (Node)); // Create Node  
 q → data = 'D'; // Store Data of Node  
 q → next = NULL; // Store address of Null  
 while (r → next != NULL)  
 { // Traverse LL To find  
 r = r → next; // last Node.  
 }  
 r → next = q; // set New Node as last Node

17 q = p; // set pointer to Node A.

while (q → next != NULL)  
 { // Traverse LL to go till Node C  
 q = q → next;  
 }  
 q → next = p; // Set next node address to Node A  
 p = p → next; // Set starting Node to be Node B  
 q = q → next; // set pointer to Node A  
 q → next = NULL; // Set <sup>next</sup> address of A to Null

18

```

q = p; // set pointer to node A.
r = p → next; // set pointer to node B
p = p → next; // set start to node B
q → next = NULL; // set next address to null

```

```

while (p != NULL)
{

```

```

    p = p → next; // set start to next node
    r → next = q; // set address of next node to
    q = r; // previous
    r = p; // update values
}

```

```

p = q; // set starting address to Node D

```

19

Node \*s

// Declare pointer of type Node

```

if (p → data < q → data) // Check for
{ // Condition

```

```

    r = s = p; // First Node

```

```

    p = p → next; // update p

```

```

}
else
{

```

```

    r = s = q;

```

```

    q = q → next; // update q

```

```

}
while (p → next != NULL && q → next != NULL) // while
{ // both are not empty

```

```

    if (p → data < q → data)
    {

```

```

        s → next = p; // Assign Next address

```

```

        p = p → next; // update p

```

```

        s = s → next; // update s

```

```

    }
}

```

```
else
{
```

```
    s → next = q;
```

```
    q = q → next; s = s → next;
```

```
}
```

```
}
```

```
while ( p → next != NULL ) // If p is not empty
```

```
{
```

```
    s → next = p;
```

```
    p = p → next; s = s → next;
```

```
}
```

```
while ( q → next != NULL ) // If q is not empty
```

```
{
```

```
    s → next = q;
```

```
    q = q → next; s = s → next;
```

```
}
```