**Tutorial 4**

**Link List**

**Instructions**

1. All tutorial sheets will be posted on the Google Classroom.

2. Students are advised to submit tutorial sheets solutions in classroom.

Q1. Write a program in C to create and display Singly Linked List.

Q2. Write a program in C to create a singly linked list of n nodes and display it in reverse order.

Q3. Write a program in C to create a singly linked list of n nodes and count the number of nodes.

Q4. Write a program in C to insert a new node at the middle of Singly Linked List.

Q5. Write a program Merge two sorted Linked Lists

Q6. Write a program to insert an element at:

1. Beginning

2. End

3. At a specified location

Q7. What is the functionality of the following code?

public void function(Node node)

{

if(size == 0)

head = node;

else

{

Node temp,cur;

for(cur = head; (temp = cur.getNext())!=null; cur = temp);

cur.setNext(node);

}

size++;

}

a) Inserting a node at the beginning of the list

b) Deleting a node at the beginning of the list

c) Inserting a node at the end of the list

d) Deleting a node at the end of the list

Q8. What is the functionality of the following code?

public int function(int data)

{

Node temp = head;

int var = 0;

while(temp != null)

{

if(temp.getData() == data)

{

return var;

}

var = var+1;

temp = temp.getNext();

}

return Integer.MIN\_VALUE;

}

a) Find and delete a given element in the list

b) Find and return the given element in the list

c) Find and return the position of the given element in the list

d) Find and insert a new element in the list