**MODERN ACADEMY**

**CLASS XII**

**COMPUTER SCIENCE-2018**

**Half Yearly Examination**

**(Practical)**

**Q-1**

A special number is a number in which the sum of the factorial of each digit is equal to the number itself. For example:   
145 = 1! + 4! + 5!  
 = 1+ 24 + 120  
 = 145

Design a class Special to check if a given number is a special number. Some of the members of the class are given below:   
**Class name** :  **Special**

Data member  **‘n’** : Integer

**Special()** : Constructor to initialize n=0

**Special(int)** : Parameterized constructor to assign a value to ‘n’

Void sum() : Calculate and display the sum of first and last digit on ‘n’

Void isSpecial() : Check and display if the number ‘n’ is a special number.

Specify the class **Special** giving details of the constructors, member functions and the main method.

Q-2

Write a java program for dynamic implementation of linked list.

class - MyLinkedList

The linked list should contain names (String). Perform the following operations on linked list:

Insert a given name at a given position

Update the linked list by deleting the first and last elements from the list

Display the list of names after every operation.