**Deparment of Computer Applications**

**18MX26 Object Oriented Programming Laboratory**

**Home Work Problems**

**Topic :** Introduction to classes, array of objects & Objects as Arguments.

**Issue Date: 06.02.2020**

**Programming Exercises:**

**Make sure to keep all data members as private.**

1. Create a class Student with data members to store name (chars 20), rollno(chars 8). Yearofbirth, nativedistrict(chars 20) . Write proper setter and getter member functions to manipulate the data members. Overload the getter function to return true if the current student native district matches. The function should be, bool get( char \*district) .

Write a proper C++ driver program to instantiate ‘n’ number of Student objects . Display the details of all Students in a neat format. Also display only the students belonging to a specific district alone.

1. Create a class myStack with necessary data members & member functions to initialize the members, push elements into stack, pop element from stack , display the top of stack and display all the elements in stack. Use only Array Implementation for Stack manipulation. Overload the pop function such that a single element or multiple elements could be popped out and displayed .

Test your myStack class with proper C++ driver program.

Hint: A class can have array as data member.

1. Create a class myQueue with necessary data members & member functions to initialize the members, insert elements into Queue , delete element from Queue , display the values of front & rear of Queue and display all the elements in Queue. Use only Array implementation for Queue manipulation. Test your myQueue class with proper C++ driver program.

**To be completed before 10.02.2020**