**Software Development Lab – II (15B11CI271)**

**Labtest2 (Wednesday 3-5pm)**

**EVEN MACHINE**

Q1. Write a program in c++ to take the details of students (Name, age, rollno, year of admission, percentage), check for following errors using (Try catch and throw) and also display valid errors statement for the same. (10 marks)

1. Name should not be more than 20 characters.

2. Age should be between 17 to 20 years.

3. Rollno should be integer and should start with year of admission.

4. year of Admission. (valid date format DD-MM-YYYY)

5. Percentage should be in range 0<>100.

Q2. Create your own Stack template class (Stack can be implemented by creating an array with two functions Push(inserting the element in the array in the end) and Pop(deleting the last element from the array) in C++. Pass the size of Array and type of Array as template arguments. (10 marks)

**ODD MACHINE**

Q1. Write a program to create program to take details of employees (Name, age, year\_of\_exp, dateof joining, salary, deptid), check for the following errors using (Try catch and throw) and also display valid errors statements for the same. (10marks)

1. Name should not be more than 20 characters.

2. year of experience should not be less than 0.

3. date of joining.(valid date format DD-MM-YYYY)

4. Salary should be more than 10,000 and should be integer.

5. Deptid should be either(CSE,ECE,BT).

Q2. Create your own Sorting template class (any sorting method can be used). Create an Array of n size, initialise the array with a default value m. Then take the input and show the sorted array. Type of Array, size of array and default value will be passed as a parameter in the template. Overload the template, if the datatype is char, then do not sort but check whether the char array is palindrome or not. (10 marks)