**Lab-4 Tasks**

**Task #1:** Write C++ program to allow the user to input his/her age. Then the program will show if the person is eligible to vote. A person who is eligible to vote must be older than or equal to 18 years old.

**Expected Output**

Enter your age: 18

You are eligible to vote.

**Task #2:**  A student will not be allowed to sit in exam if his/her attendance is less than 75%.  
Take following input from user:  
Number of classes held   
Number of classes attended.  
And print  
percentage of class attended  
Is student is allowed to sit in exam or not.

**Task # 3**: Write a program that [accepts three numbers from the user and prints](https://www.w3resource.com/java-exercises/conditional-statement/java-conditional-statement-exercise-31.php) "increasing" if the numbers are in increasing order, "decreasing" if the numbers are in decreasing order.

Test Data  
Input first number: 15   
Input second number: 25  
Input third number: 35

**Task # 4:** Write a program to check whether a entered character is lowercase (a to z ) or uppercase ( A to Z ). (You can use ASCII value to do so).

**Task # 5:** Write a C++ program that takes a line of text from the user and prints only the first word .

**Example:** Line Entered **Programming Fundamentals in C++**

Output should be

**First word: Programming**

**Task # 6:** Write a C++ program that takes a single word from the user and prints only the first charcter .

**Example:** Line Entered **Programming Fundamentals**

Output should be

**First letter: P**

**Task # 7:** In the following program, explain why the value "6" is printed twice in a row:

**// \*\*\*\* file increment.cpp \*\*\*\***

int main(){

int i = 3;

i++;

cout << i; // "4"

++i;

cout << i; // "5"

cout<<++i; // "6"

cout<<i++; // "6"

cout << i; // "7" }

**Ans:** In line no: 7 we have used increment operator before variable also known as pre-increment operator which print the result at time of increment. While in line no: 8 we have used increment operator after variable also known as post-increment operator which prints result after variable is called again.

**Task # 8** Write a Program named **Address.CPP**. An address has

* Student Name
* a house number,
* a street,
* an optional apartment number,
* a city,
* a state and a
* postal code.

Supply values at runtime: and print the address with the street on one line and the city, state, and postal code on the next line.

**Task #9:** Take three numbers from the user and print the greatest number.

Test Data  
Input the 1st number: 25   
Input the 2nd number: 78   
Input the 3rd number: 87  
Expected Output:   
The greatest: 87

**Task # 10:** Write a c++ program that accepts three numbers and prints "All numbers are equal" if all three numbers are equal

**Task # 11**: Write a program that declares an int variable, assign it a value of your choice. The program checks as:

**if the number is even make it odd number.**

**if the number is odd prints its square.**

**if the number is equal to 0 make it a double figure number and prints its cube.**

**Task # 12** Write a C++ program that takes a single character as input and tells whether it is a vowel or a consonant. (Use Switch Statement)

**Task #13**

If  
x = 2  
y = 5  
z = 0  
then find values of the following expressions:  
a. x == 2  
b. x != 5  
c. x != 5 && y >= 5  
d. z != 0 || x == 2  
e. !(y < 10)

**Task # 14**: Write a program that prints the designation of the employee according to their pay scale:

10000 –20000 Manager Operations

20000 –30000 Manager

30000 –40000 Area Manager

40000 –50000 Regional Manager

**Task # 15:** Develop a mark sheet application in C++ which fulfills the following requirements:

The program takes input from the user marks obtained in three subjects; C++, Functional English and EE.

• The program calculates the total marks obtained out of 300.

• Calculate the percentage.

• Display the grade secured according to the following:

90 > Grade: A

Between 90 and 80 Grade: B

Between 79 and 70 Grade: C

Between 69 and 60 Grade: D

Below 60 Grade: FAIL