Assignment #2

Chapter 8 : Operators and Expressions in C++

1. Predict the output of the following program :

```
#include<iostream.h>
void main()
{
        int x=5;  int y=0;
        y= x++ + 10;
        cout<<"y ="<<y <<endl;
        cout<<"x= "<<x<<endl;
        y=((x>=5)?1 : 0);
        cout<<" Now the value of y is  :"<<y;
}
```

2. Rewrite the corresponding C++ expressions for the following :

   (i) $\frac{\text{Cos } x \ . \ \text{Tan}^{-1} x}{A^2 + B^2}$

   (ii) $4 - 6e^{2y}$

   (iii) $|x| + y$ is not equal to $|x + y|$

3. Given the following set of identifiers -

```
char x;
int y;
short sh;
float fval;
long lval;
```

   Identify the datatype of the following expressions :

   (i) y * fval + sh

   (ii) fval/lval + int/sh

4. Evaluate the following expressions :

   (i) x + y < z && x + z >y || x-z <= y-x+2
   if x=4, y=5 and z=2

   (ii) z>x && x+3 || !(2*y + z –x)
   if x=10 , y=15 , z=5

   (iii) c= a-(b++) * (--a)
   if a=5 , b=3 and d=15

5. Predict the output of the following program :

```
#include<iostream.h>
#include<math.h>
void main()
{
        float x,y;
```

```
    x=9.15;
    y= - 6.08;
    int z=2;
    cout<<ciel(x)<<endl;
    cout<<floor(y)<<endl;
    cout<<pow(z,10)<<endl;
    cout<<sizeof(x)<<endl;
    z*=10;
    cout<<"z = " <<z<<endl;
}
```

PROGRAMS

1. WAP to accept marks of a student out of 100 and display "PASS " if the student scores >=40 and "FAIL" otherwise.
2. WAP to accept a number and display its square root and modulus.
3. Do quest no- 5 of the assignment (use of math.h)