## Programming Fundamentals

## LAB MANUAL6

## 

**Implementation of different programs using operators and applying data type conversions**

Run the following examples, see different variations of the output and show the output

|  |
| --- |
| --1  #include<iostream>  #include<ctype.h>  #include<iomanip>//for setw()  using namespace std;  main()  {  float length, breadth;  double area, perimeter;  cout<<"Enter length and breadth of rectangle: ";  cin>>length>>breadth;  area=length\*breadth;  perimeter=2\*(length+breadth);  cout<<endl;  cout<<setw(20)<<"Area is: "<<setw(5)<<area<<endl  <<setw(20)<<"Perimeter is: "<<setw(5)<<perimeter;  return 0;  } |

|  |
| --- |
| --2  #include <iostream>  using namespace std;  int main()  {  cout<< (char)65 <<"\n";  } |

3. #include <iostream>

using namespace std;

int main() {

unsigned int p = 60; // 60 = 0011 1100

unsigned int q = 13; // 13 = 0000 1101

int z = 0;

z = p & q;

cout << "p&q is : " << z << endl; // 12 = 0000 1100

z = p | q;

cout << "p|q is : " << z << endl; // 61 = 0011 1101

z = p ^ q;

cout << "p^q is : " << z << endl; // 49 = 0011 0001

z = ~p;

cout << "~p is : " << z << endl; // -61 = 1100 0011

z = p << 2;

cout << "p<<2 is: " << z << endl; // 240 = 1111 0000

z = p >> 2;

cout << "p>>2 is : " << z << endl; // 15 = 0000 1111

return 0;

}

|  |
| --- |
| -4.  #include<iostream>  #include<conio.h>  using namespace std;  int main()  {  //Using Bool Data Type  bool a = 321, b; /\*Declare two bool variable. Bool store two type of value true or falue and this show  bu integer value 1 for true and 0 for false like here i initialize bool a  with 321 value it store 1 in it let see\*/  cout << "Bool a Contains : " << a; // print a it show 1  int c = true; // it store value 1 for true and 0 for false  c = a + a; // a value is 1 and 1 add to 1 gives 2  cout << "\nInteger c contain : " << c; //print c value  b = c + a;  /\* it 2 + 1 it give 1 because its type is bool so it show only 0 and 1\*/  cout << "\nBool b contain : " <<b;  getch();  return 0;  } |

|  |
| --- |
| --5.  #include<iostream>  using namespace std;  main()  {  int var1=5,var2=3;  int var3=5.5, var4=3;  int var5=5, var6=6;  cout<<var1%var2<<endl;  cout<<var3%var4<<endl;  cout<<var5%var6<<endl;  return 0;  } |

|  |
| --- |
| --6  #include<iostream>  using namespace std;  main()  {  int var1=5, var2=6;  cout<<var1++<<endl;  cout<<--var1<<endl;  cout<<++var1<<endl;  cout<<var1--<<endl;  return 0;  **}** |

|  |
| --- |
| --7  /\*The following program uses library function sqrt() to calculate the square root of a number entered by the user.\*/  #include <iostream> //for cout, etc.  #include <cmath> //for sqrt()  #include<conio.h>  using namespace std;  main()  {  double number, answer; //sqrt() requires type double  cout << "Enter a number: ";  cin >> number; //get the number  answer = sqrt(number); //find square root  cout << "Square root is "<< answer << endl; //display it  return 0;  } |

**Tasks:**

1. Write a program that takes temperature in Celsius and converts it to Fahrenheit using following formula
2. Implement distance formula..