Practical 5

ICT 107 1.0

1. Write a program to calculate the distance travel using the given formula below:

   $S = vt + \frac{1}{2} at^2$

   In your program ask user to input through keyboard the value of: v = initial velocity a = acceleration t = time of travel

2. Write a Program to calculate and display the volume of a CUBE having its height (h=10cm), width (w=12cm) and depth (8cm).

3. Write a program to check odd or even number (a) using modulus operator (b) using bitwise operator (c) using conditional operator.

4. Print the value of y for given x=2 & z=4 and analyze the output.

   a. y = x>z;
   b. y= x>z? x:z;
   c. y = x&z;
   d. y= x>>2 + z<<1;

5. Write a program to print the size of char, float, double and long double data types in C

6. Given X=3.0, y=12.5, z= 523.3, A=300.0, B=1200.5, C=5300.3,

   Write a program to display the following:

X	y	z=	3.0|	12.5|	523.3|
A	B	C=	300.0|	1200.5|	5300.3|

X	y	z=	|3.00	|12.50	|523.30
A	B	C=	|300.00	|1200.50	|52300.30

7. Write a program to find the largest and smallest among three entered numbers and also display whether the identified largest/smallest number is even or odd.

8. Write a program to check whether the entered year is leap year or not (a year is leap if it is divisible by 4 and divisible by 100 or 400.)

9. Write a program to read the values of coefficients a, b and c of a quadratic equation $ax^2+bx+c=0$ and find roots of the equation.

10. Write C code to produce the output as shown below

Contents of x before		Expression		Value of Expression		Contents of x after
5	|	x++	|	5	|	
5	|	x--	|	5	|	
5	|	++x	|	6	|	
5	|	--x	|	4	|	

11. Write a program to prompt the user to input the integral value of a and print out the result as shown below.

Result:

The value of a is: 10

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The value of ++a is: 11

Now the value of a is: 11

The value of a++ is: 11

Now the value of a is: 12

The value of --a is:11

Now the value of a is:11

The value of a-- is: 11

Now the value of a is: 10