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## ***Lab. (3)***

### ***C++ Fundamental Operations***

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*Answer the following questions*

- 1) Write a program in C++ to print a welcome text in a separate line.
- 2) Write a program in C++ to print the sum of two numbers.
- 3) Write a program in C++ to find Size of fundamental data types.

Using function sizeof(used data types)

- 4) Write a program in C++ to print the sum of two numbers using variables.
- 5) Write a program in C++ to display various type or arithmetic operation using mixed data type. Such as:

$$\underline{5 + 7 = 12}$$

$$\underline{3.7 + 8.0 = 11.7}$$

$$\underline{5 + 8.0 = 13.0}$$

$$\underline{5 - 7 = -2}$$

- 6) Write a program in C++ to display the operation of pre and post increment and decrement.
- 7) Write a program in C++ to print the result of the specified operations.

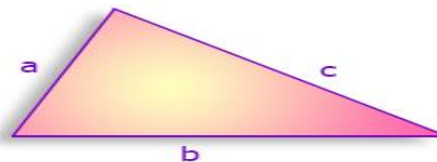
$$\underline{(-1+4*6) - ((35+5) \%7) - (14+-4*6/11) - (2+15/6*1-7\%2)}$$

- 8) Write a program in C++ to add two numbers accept through keyboard.
- 9) Write a program in C++ to swap two numbers.
- 10) Write a program in C++ to calculate the volume of a sphere.
- 11) Write a program in C++ to calculate the volume of a cube.

- 12) Write a program in C++ to find the Area and Perimeter of a Rectangle.
- 13) Write a program in C++ to find the area and circumference of a circle
- 14) Write a program in C++ to convert temperature in Celsius to Fahrenheit.
- 15) Write a program in C++ that converts kilometers per hour to miles per hour.
- 16) Write a program in C++ to compute quotient and remainder.
- 17) Write a program in C++ to compute the total and average of four numbers.
- 18) Write a program in C++ to check whether a number is positive, negative or zero.
- 19) Write a program in C++ to divide two numbers and print on the screen.
- 20) Write a program in C++ to compute the specified expressions and print the output.

the expression  $(25.5 * 3.5 - 3.5 * 3.5) / (40.5 - 4.5)$  is: 2.13889

- 21) Write a language program in C++ which accepts the user's first and last name and print them in reverse order with a space between them.
- 22) Write a program in C++ to find the area of any triangle using Heron's Formula.



$$\text{Heron's Formula :- Area} = \sqrt{s(s-a)(s-b)(s-c)}$$

$$s = \frac{a+b+c}{2}$$

- 23) Write a program in C++ which swap the values of two variables not using third variable.