H006
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Signal Processing Lab

Subject- Virtual Instrumentation

EXPERIMENT NO. 1

Aim:
1A – To convert temperature from C to F
1B – To find Roots of an equation

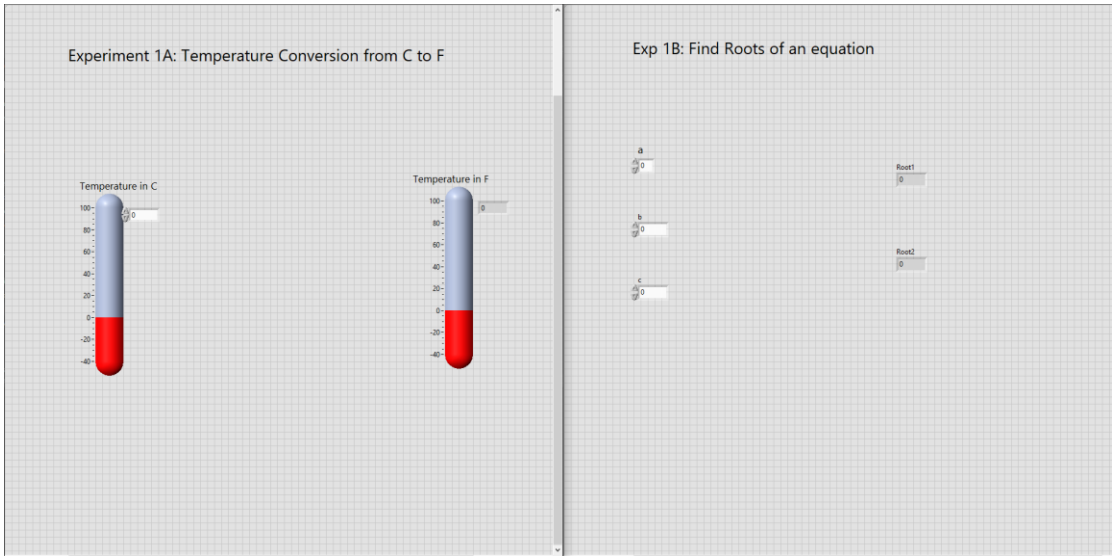
Software Used : PC with software (NI LabVIEW)

Theory:
In LabVIEW, the basic arithmetic operations are performed using arithmetic functions. These functions are available in the Functions palette, under the Numeric tab. Some of the commonly used arithmetic functions are:

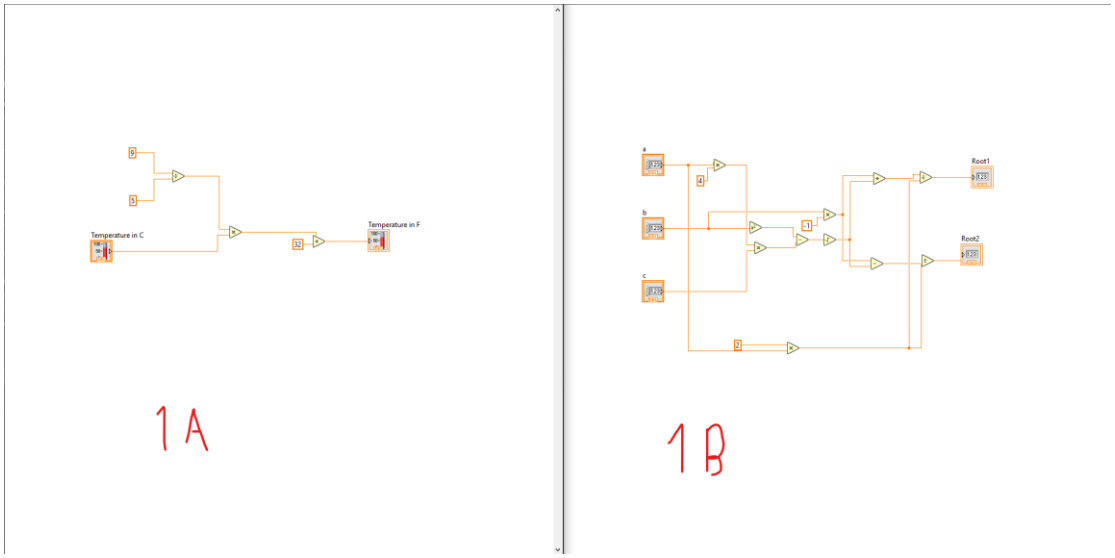
1) Add: The Add function is used to add two or more values. It takes in multiple inputs and returns the sum of all the inputs.
2) Subtract: The Subtract function is used to subtract two values. It takes two inputs and returns the difference between them.
3) Multiply: The Multiply function is used to multiply two or more values. It takes in multiple inputs and returns the product of all the inputs.
4) Divide: The Divide function is used to divide two values. It takes two inputs and returns the quotient.
5) Modulus: The Modulus function is used to find the remainder of a division operation. It takes two inputs, the dividend and the divisor, and returns the remainder.
6) Increment: The Increment function is used to increment a value by a fixed amount. It takes two inputs, the value to be incremented and the amount to be incremented by, and returns the incremented value.
7) Decrement: The Decrement function is used to decrement a value by a fixed amount. It takes two inputs, the value to be decremented and the amount to be decremented by, and returns the decremented value.

These arithmetic functions can be used in LabVIEW to perform mathematical operations on numeric data types, such as integers, floating-point numbers, and complex numbers. They can be used in conjunction with other LabVIEW functions to create complex mathematical algorithms and data processing applications.

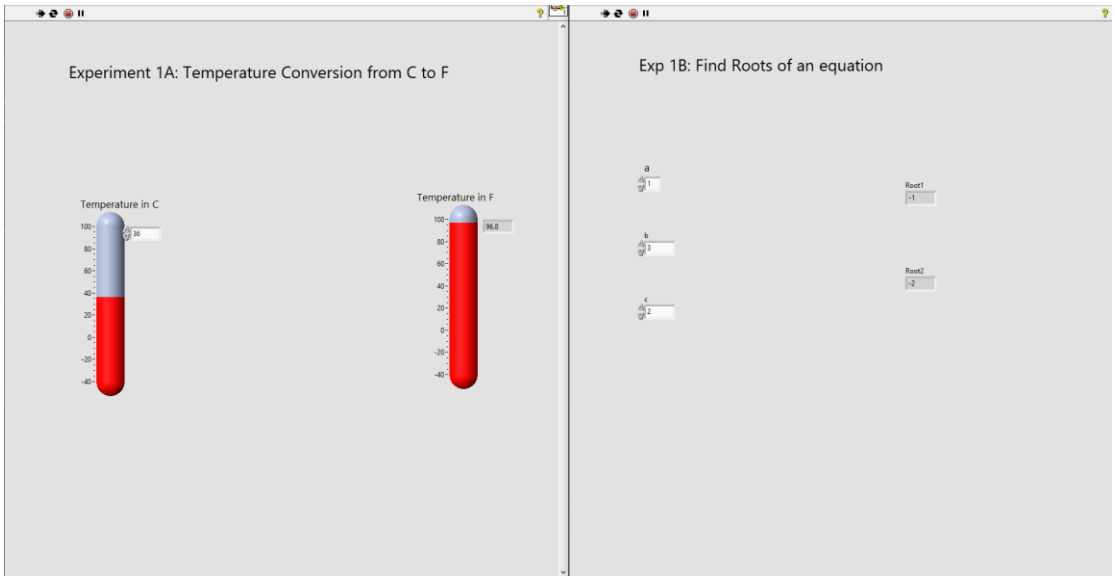
Front Panel:



Block Diagram:



Output :



Conclusion :

The experiment was carried out successfully in LabVIEW.