

**C++ Complete Bootcamp [June 2021]**

# Assignment [Week 01]

Basics of C++

Basic I/O in C++

Operators & Expressions

Variables & Datatypes

# Short Answering Questions

1. What is the basic structure of a C++ program?
2. What are the **Comments** in C++?
3. What do you mean by **preprocessor directive** in C++ ?
4. What is the use of **iostream** in C++ ?
5. What is the use of **return 0** statement in C++ ?
6. Why do we write **int** in main function in C++ ?
7. What is the use of writing **using namespace std** in C++ ?
8. Can we write a basic input output program without **cin** and **cout** ?
9. Why can we use **printf()** and **scanf()** in C++ ?
10. What are format specifiers in C ?

## Coding Questions (Part 1)

1. Write a C++ program to input the side of a square and find and show the area and perimeter.
2. Write a C++ program to input the two angles of a triangle and find and display the third angle.
3. Write a C++ program to input the PRINCIPAL, RATE and TIME and calculate and display the SIMPLE INTEREST.
4. Write a C++ program to input the radius of base and height of a cylinder and calculate and show its area and surface area.
5. Write a C++ program to calculate the number of seconds in a year.

## Coding Questions (Part 2)

1. Write a C++ program to input the height and weight of a person and calculate the BODY-MASS-INDEX.
2. Write a C++ program to take number  $x$  and  $y$  as input and evaluate the following expressions using C++

1)  $x^3 - 3x^2 - x + 3$

2)  $4x^2 + 12xy + 9y^2$

3)  $3\sqrt{2}x^2 - 3\sqrt{2}$

4)  $x^4 - 4x^3 + 10x^2 - 12x + 9$

5)  $x^5 + 5x^4 + 10x^3 + 10x^2 + 5x + 1$

6)  $x^6 - 6x^5 + 15x^4 - 20x^3 + 15x^2 - 6x + 1$