**DAILY ASSESSMENT FORMAT**

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| **Date:** | **22-06-2020** | **Name:** | **Kiran N** |
| **Course:** | **C++** | **USN:** | **4al16ec031** |
| **Topic:** | **Introduction** | **Semester & Section:** | **8th and A** |
| **Github Repository:** | **Kiran-course** |  |  |

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| **FORENOON SESSION DETAILS** |
| Report:  C++, as we all know is an extension to C language and was developed by Bjarne stroustr up at bell labs. C++ is an intermediate level language, as it comprises a confirmation of both high level and low level language features. C++ is a statically typed, free form, multiparadigm, compiled general-purpose language.  C++ is an Object Oriented Programming language but is not purely Object Oriented.  Its features like Friend and Virtual, violate some of the very important OOPS features, rendering this language unworthy of being called completely Object Oriented. Its a middle level language.  Benefits of C++ over C Language:  The major difference being OOPS concept, C++ is an object oriented language  Where as C language is a procedural language. Apart form this there are many other features of C++ which gives this language an upper hand on C laguage.  Following features of C++ makes it a stronger language than C,  1.There is Stronger Type Checking in C++.  2.All the OOPS features in C++ like Abstraction, Encapsulation, Inheritance etc makes it more worthy and useful for programmers.  3.C++ supports and allows user defined operators (i.e Operator Overloading)and function overloading is also supported in it.  4.Exception Handling is there in C++.  5.The Concept of Virtual functions and also Constructors and Destructors for Objects.  6.Inline Functions in C++ instead of Macros in C language. Inline functions make complete function body act like Macro, safely.  7.Variables can be declared anywhere in the program in C++, but must be declared before they are used.Header files are included at the beginning just like in C program. Here iostream is a header file which provides us with input & output streams. Header files contained predeclared function libraries, which can be used by users for their ease.  Using namespace std, tells the compiler to use standard namespace. Namespace collects identifiers used for class, object and variables. NameSpace can be used by two ways in a program, either by the use of using statement at the beginning, like we did in above mentioned program or by using name of namespace as prefix before the identifier with scope resolution (::) operator.  Example: std::cout << "A";main(), is the function which holds the executing part of program its return type is  int.cout <<, is used to print anything on screen, same as printf in c language.  Cin and cout are same as scanf And printf , only difference is that you do not need to mention format specifiers like,%d for int etc, in cout &cin.  Comments in C++ Program:  For single line comments, use//before mentioning comment  For multiple line comment, enclose the comment between  /\*  and  \*/  Operators in C++  Operators are special type of functions, that takes one or more arguments and produces a new value. For example : addition (+), substraction (-), multiplication (\*) etc, are all operators. Operators are used to perform various operations on variables and constants.  Types of operators  1.Assignment Operator  2.Mathematical Operators  3.Relational Operators  4.Logical Operators  5.Bitwise Operators  6.Shift Operators  7.Unary Operators  8.Ternary Operator  9.Comma Operator  Assignment Operator (=)  Operates '=' is used for assignment, it takes the right-hand side (called rvalue) and copy it into the left-hand side (called lvalue). Assignment operator is the only operator which can be overloaded but cannot be inherited.  Mathematical Operators  There are operators used to perform basic mathematical operations. Addition (+) ,subtraction (-) , diversion (/) multiplication (\*) and modulus (%) are the basicmathematical operators. Modulus operator cannot be used with floating-point numbers. |