# Assignment-2

## OOPs Concept

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1.

| Procedural Language | Object Oriented Language |
|---|---|
| * Here, program is divided into small parts called functions. | * Here, program is divided into small parts called objects. |
| * Follows top down approach | * Follows bottom up approach |
| * No access specifiers in this programming. | * This have access specifiers like public, private, protected. |
| * Adding new data and functions is not Easy. | * Adding new data and functions is Easy. |
| * We can't hide anything. So, it is less secure. | * It provides data hiding. So, it is more secure. |
| * Overloading is not possible | * Overloading is possible |
| Ex - C, FORTRAN, Pascal etc. | Ex - C++, Python, Java, C# etc |

2. C++ is object oriented and it is related to real world objects while C in procedural oriented so, it focus on procedure.

* C++ uses Inheritance while C doesnot.
* Overloading is allowed in C++
* C++ is enriched with access specifiers - public, private, protected.
* It is useful for low level programming language and very efficient for general purpose.

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3. The type of Inheritance supported in C++ are –
* Single Inheritance
* Multilevel Inheritance
* Multiple Inheritance
* Heirarchial Inheritance
* Hybrid Inheritance
* Multipath Inheritance

4. Inline function is a function in C++ that is expanded in line when it is called. When the inline function is called, whole code of the inline function gets inserted or substituted at the point of inline function call. This substitution is performed by C++ compiler at compile time. Syntax:

```
inline return_type (parameters)
{
    // Body of function.
}
```

5. A pure virtual function in C++ for which we need not to write any function definition and only we have to declare it.

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6. A class can be also declared to be the friend of some other class. When we create a friend class then all the member functions of the friend class also become the friend of the other class. This requires the condition that the friend becomes class must be first declared or defined.

Friend Functions –

These are special functions which can access the private members of class. They are considered to be a loophole in the OPPs concepts but logical use of them can make them useful in some cases.

7. D – None of the above.

8. C – ::

:: (Scope Resolution operator) can't be overloaded.