Assignment No.6

Q1. Define Object Oriented Programming Language?

Ans. Object-Oriented programming is a widely used concept to write powerful applications. As a data scientist, you will be required to write applications to process your data, among a range of other things.

Objects, methods, instance, message passing, inheritance are some important properties provided by these particular languages

Q2. List down benefits of Oriented Programming Language?

Ans. Following are the benefits:-

- Modularity for easier troubleshooting
- Reuse of code through inheritance
- Flexibility through polymorphism
- Effective problem solving

Q3. Differentiate between function and method?

Ans.

Function	Method
A function is a block of code which only runs when it is called. You can pass data, known as parameters, into a function. A function can return data as a result.	A method is a programmed procedure that is defined as part of a class and included in any object of that class.

Q4. Define the following terms:

Ans.

1. **Class:-** It is an extensible program-code-template for creating objects, providing initial values for state and implementations of behavior.

2. **Object:-** These are the things you think about first in designing a program and they are also the units of code that are eventually derived from the process.

3. **Attribute:-** These are data that stored inside a class or instance and represent the state or quality of the class or object. In short, attributes store information about the object.

4. **Behavior:-** It determines that how object of the class will operates or reacts.