# **Question No 3 :- Differentiate between function and method?**

# **Question No 4 :- Define the following terms: Class, Object, Attribute and Behavior.**

## Answer :-

## **Class** :- A class is a generic template for a set of objects with similar features.

## **Object** :- An Object is an instance of a Class.

## **Attribute** :- Attributes are the individual things that differentiate one object from another and determine the appearance, state, or other qualities of that object.

## **Behaviour** :- A class's behavior determines how an instance of that class operates; for example, how it will "react" if asked to do something by another class or object or if its internal state changes. Behavior is the only way objects can do anything to themselves or have anything done to them. For example, to go back to the theoretical Motorcycle class, here are some behaviors that the Motorcycle class might have:

## • Start the engine

## • Stop the engine

## • Speed up

## • Change gear

## Answer :-

## **Function** :- A **Function** is a piece of code that is called by name. It can be passed data to operate on (i.e. the parameters) and can optionally return data (the return value). All data that is passed to a function is explicitly passed.

* **Method** :- A method is a piece of code that is called by a name that is associated with an object. In most respects it is identical to a function except for two key differences:

## **F**unction → **F**ree (Free means not belong to an object or class)

## **M**ethod → **M**ember (A member of an object or class)

## Answer :- There are 4 Benefits of using Object Oriented Programming Language.

1. Modularity for easier troubleshooting
2. Resusablity of Code Using Inheritance
3. Flexibility through Polymorphism
4. Effective Problem Solving

# **Question No 2 :- List down the Benefits of OOP?**

## Answer :- Object-Oriented Programming refers to languages that uses objects in programming. Object-oriented programming aims to implement real-world entities like inheritance, hiding, polymorphism etc in programming. The main aim of OOP is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function.

# **Question No 1 :- Define Object Oriented Programming Language?**

# Assignment 6