Assignment # 06

**Question: 01=> Define Object Oriented Programming Language?**

Ans: OOP is programming paradigm based on the concept of objects, which can contain data, in the form of fields known as attributes or properties and code, in the form of procedure often known as methods.

OOP contain the classes, objects and methods. Main features of OOP are inheritance, polymorphism, encapsulation and abstraction.

**Question: 02=> List down the Benefits of OOP?**

Ans:

* Reusability
* Extensibility
* Decomposability
* Security
* Higher-quality software

**Question: 03=> Differentiate between function and method**

**Ans:**

**Function:** A function is a piece of code that is called by name. It can be passed data to operate on (The parameters) and can optionally return data (the return value). Function does not deal with class and its intake concept.

**Method:** A method is call by its name, but it is associated to an object (dependent). Method can operate on the data (instance variables) that is contained by the corresponding class.

**Question: 04=> Define the following terms:**

**Class:** A class is a template definition of the method and variables in a kind of object.

**Object:** An object is a specific instance of class; it contains real values instead of variables.

**Attributes:** Attributes are data stored inside a class or instance and represent the state or quality of the class or instance

**Behavior:** Behavior define the properties and characteristics of the class and its objects.

**Question 5:**

**Write a code in python in which create a class named it Car which have 5 attributes such like (model, color and name etc.) and 3 methods. And create 5 object instance from that class.**

**Code:**

class car():  
 def car\_name(self,name):  
 print("Name is: ", name)  
  
 def model(self,year):  
 print("Model is: ", year)  
 def color\_price\_guarrante(self,color, price, guarrante):  
 print("color is: ", color)  
 print("Price is: $",price)  
 print("Guarrante is: ", guarrante)  
  
def main():  
 obj = car()  
 name = input("Enter name of the Car: ")  
 model = int(input("Enter model of the car 2019,2020: "))  
 color = input("Color of the car: ")  
 price = int(input("Enter price in Dollar; "))  
 guarant = int(input("Enter guarrante in year: like 2, 4 year: "))  
  
 obj.car\_name(name)  
 obj.model(model)  
 obj.color\_price\_guarrante(color, price, guarant)  
main() #Calling the method.  
  
if \_\_name\_\_ == "\_\_main\_\_": #Other way to call the method.  
 main()