***QUESTION NO 1***

***OBJECT ORIENTED PROGRAMMING:***

***O***bject-***o***riented ***p***rogramming (**OOP**) refers to a type of computer programming (s[data structure](https://www.webopedia.com/TERM/D/data_structure.html), and also the types of operations ([functions](https://www.webopedia.com/TERM/F/function.html)) that can be applied to the data structure.

In this way, the data structure becomes an [object](https://www.webopedia.com/TERM/O/object.html) that includes both [data](https://www.webopedia.com/TERM/D/data.html) and functions. In addition, programmers can create relationships between one object and another. For example, objects can inherit characteristics from other objects.

oftware design) in which [programmers](https://www.webopedia.com/TERM/P/programmer.html) define the [data type](https://www.webopedia.com/TERM/D/data_type.html) of a

***QUESTION NO 2***

BENEFITS OF OOP:

* It provides a clear modular structure for programs which makes it good for defining abstract data types in which implementation details are hidden.
* Objects can also be reused within an across applications.
* It makes software easier to maintain.
* Reuse also enables faster development.

***QUESTION NO 3***

***DIFFERENCE BETWEEN METHODS & FUNCTIONS:***

A method in python is somewhat similar to a function, except it is associated with object/classes. Methods in python are very similar to functions except for two major differences. The method is implicitly used for an object for which it is called. The method is accessible to data that is contained within the class.

***QUESTION NO 4***

CLASS:

A class is a code template for creating objects. Objects have member variables and have behaviour associated with them. In python a class is created by the keyword class . An object is created using the constructor of the class. This object will then be called the instance of the class.

OBJECT:

Python is an object oriented programming language. Unlike procedure oriented programming, where the main emphasis is on functions, object oriented programming stress on objects. Object is simply a collection of data (variables) and methods (functions) that act on those data. And, class is a blueprint for the object.

ATTRIBUTE:

An instance attribute is a Python variable belonging to one, and only one, object. ... A class attribute is a Python variable that belongs to a class rather than a particular object. It is shared between all the objects of this class and it is defined outside the constructor function, \_\_init\_\_(self,...) , of the class.

BEHAVIOR:

Behavior-driven development using Python's 'behave' framework can help your team achieve better collaboration and test automation