**Question No: 1**

**Q) Define Object Oriented Programming Language?**

**Objected-oriented programming is the type of software programming in which we define the of type of data that we use in data structures, also the types of functions that can be use in data structure.**

**And this way the data structure that includes both functions and data type become and object and by using object-oriented programming programmer can relates between two objects.**

**Just as an object can obtain certain features of the other object to itself.**

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**Question No: 2**

**Q) List down the Benefits of OOP?**

**1) Flexibility with polymorphism:**

**Examples:**

**This is where object-oriented programming’s sweet polymorphism comes into play. Because a single function can shape-shift to adapt to whichever class it’s in, you could create one function in the parent Car class called “drive” — not “driveCar” or “driveRaceCar,” but just “drive.” This one function would work with the RaceCarDriver, LimousineDriver, etc. In fact, you could even have “raceCar.drive(myRaceCarDriver)” or “limo.drive(myChauffeur).”**

**2) Effective problem Solving**

**3) Development is faster and cheaper**

**4) better software maintainability**

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**Q) Differentiate between function and method?**

**A function is 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.**

**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:**

1. **A method is implicitly passed the object on which it was called.**
2. **A method is able to operate on data that is contained within the class (remembering that an object is an instance of a class - the class is the definition the object is an instance of that data).**

**A class is a code template for creating objects. Objects have member variables and have behavior associated with them.**

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**Q) Define the following terms:**

**1. Class**

**2. Object**

**3. Attribute**

**4. Behavior**

**Ans)**

1. **CLASS:**

**A class is a code template for creating objects. Objects have member variables and have behavior associated with them. In python a class is created by the keyword class.**

1. ***Object:***

**Object is simply a collection of data (variables) and methods (functions) that act on those data.**

1. ***Attribute:***

**A class attribute is a Python variable that belongs to a class rather than a particular object..**

1. ***Behavior:***

**behave is behavior-driven development, Python style. Behavior-driven development (or BDD) is an agile software development technique that encourages collaboration between developers, QA and non-technical or business participants in a software project.**