**Q1. What is the purpose of Python's OOP?**

Python’s OOP allows us to write clean and well-structured code which provides us modularity and reusability. We can map real world objects into code which can have properties and methods. OOP concept provides us inheritance, encapsulation, abstraction and polymorphism.

**Q2. Where does an inheritance search look for an attribute?**

The attribute is searched in specific hierarchy, first it is searched in the instance itself, if not found then the attribute is searched in the class of the instance and lastly in the parent class of the instance. At any stage it is found the search is stopped and the attribute will be returned

**Q3. How do you distinguish between a class object and an instance object?**

Class objects acts as blueprint of its instances. Class object can have multiple instances but every instance object will unique in all instances. Class objects have their own attributes and method which can be shared with all it instances or can be override this is not the case with instances objects.

Class object can be accessed just by calling its name but to access instance object it has to be instanciated.

**Q4. What makes the first argument in a class’s method function special?**

In general, we give self as a first argument in class method. This refers to instance object of a class on which method is being called. This allows us access and modify the attributes and methods within the class and differentiate amongst other instances of same class.

**Q5. What is the purpose of the \_\_init\_\_ method?**

\_\_init\_\_ method is used to initialize a class in which we can set class attributes at the start. It is also called constructor meaning it is automatically invoked along with instance of the class we don’t have to call it explicitly.

**Q6. What is the process for creating a class instance?**

Class instance can be created by calling class name followed by ( ). Arguments can be passed along with it if they are initiated in \_\_init\_\_ method in class definition.

**Q7. What is the process for creating a class?**

Class can be created as follows:

Write ‘class’ keyword followed by class name and ‘:’

You can define constructor by \_\_init\_\_ method if you want to set instance attributes at the time of instantiation, after that you can set other attributes and methods.

**Q8. How would you define the superclasses of a class?**

You can define superclass by calling them in class definition like In following example.

Class Child( Superclass ):

pass