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

Ans: OOP is about code reuse — you factor code to minimize redundancy and program by customizing what already exists instead of changing code in place or starting from scratch.. The main concept of OOPs is to bind the data and the functions that work on that together as a single unit so that no other part of the code can access this data.

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

Ans: An inheritance search looks for an attribute first in the instance object, then in the class the instance was created from, then in all higher superclasses, progressing from left to right (by default). The search stops at the first place the attribute is found.

Q3.What is the difference between a class object and an instance object?

Ans: Classes are a kind of factory for creating multiple instances. Classes also support operator overloading methods, which instances inherit, and treat any functions nested in the class as methods for processing instances.

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

Ans: self represents the instance of the class. By using the “self” we can access the attributes and methods of the class in python. It binds the attributes with the given arguments.

The reason you need to use self. is because Python does not use the @ syntax to refer to instance attributes. Python decided to do methods in a way that makes the instance to which the method belongs be passed automatically, but not received automatically: the first parameter of methods is the instance the method is called on.

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

Ans: Constructors are used to initializing the object’s state. The task of constructors is to initialize(assign values) to the data members of the class when an object of the class is created. Like methods, a constructor also contains a collection of statements(i.e. instructions) that are executed at the time of Object creation. It is run as soon as an object of a class is instantiated. The method is useful to do any initialization you want to do with your object.

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

Ans: You create a class instance by calling the class name as though it were a function; any arguments passed into the class name show up as arguments two and beyond in the \_\_init\_\_ constructor method.

x = ClassName()

y = AnotherClass(arg1, arg2)

Q7. What is the process for creating a class?

Ans: class ClassName():

#some code here

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

Ans: They are classes which are used to inherit from.

class Son(Father, Mother): …

In this case Father and Mother are superclasses for Son subclass.