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

Sol: purpose of python’s OOP is to provide a way to organize and structure code that is more modular, reusable, and easier to maintain

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

Sol: in python when a class inherits from another class the inheritance search for an attribute in the object instance if the attribute not found in the class and in the class if the attribute not found in the object instance and superclass if attribute not found in the class.

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

Sol: In python a class is a blueprint for creating objects while an instance is an object that is created from a class. A class is defined using the ‘class’ keyword, and it contains methods and attributes and define the behavior and properties of the objects that will be created from it. An instance on the other hand is created by calling the class.

Class person:

Def speak(self):

Print(“speak”)

Person1 = person()

Here person is class object while person1 is an instance.

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

Sol: In python, the first argument in a class’s method is conventionally named ‘self’ this argument refers to the instance of the class that the method is being called on. The ‘self’ parameter is special because it allows you to access the attributes and methods of the instance within the method.

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

Sol: the purpose of the \_\_init\_\_ method is to initialize the object’s attributes, which are specific to that object.

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

Sol: define the class: First you need to define the class by creating a class definition. This defines the blue print for the class and the attributes and the methods that it will have

Instantiate the class: To create an instance of the class you can use the class name as a function and call it with any necessary arguments.

Use the instance: once we have an instance of the class, you can use it to access its attributes and methods.

Q7. What is the process for creating a class?

Sol: Define the class: first we need to define the class using the ‘class’ keyword followed by the name of the class.

Define the class attributes: inside the class definition we can define class attributes.

Define class methods: inside the class definition we can define class methods using def keyword.

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

Sol: The superclass of a class are the classes from which the current class inherits. In python we can define a superclass by including the superclass name in the parentheses after the class name when defining the class.