Q1. Which two operator overloading methods can you use in your classes to support iteration?

Ans: The \_\_iter\_\_ returns the iterator object and is implicitly called at the start of loops. The \_\_next\_\_ method returns the next value and is implicitly called at each loop increment. \_\_next\_\_ raises a StopIteration exception when there are no more value to return, which is implicitly captured by looping constructs to stop iterating.

Q2. In what contexts do the two operator overloading methods manage printing?

Ans:

Q3. In a class, how do you intercept slice operations?

Ans: The \_\_getitem\_\_ method is used for accessing list items, array elements, dictionary entries etc. slice is a constructor in Python that creates slice object to represent set of indices that the range(start, stop, step) specifies. \_\_getitem\_\_ method can be implement in a class, and the behavior of slicing can be defined inside it.

Q4. In a class, how do you capture in-place addition?

Ans: Python provides the operator x += y to add two objects in-place by calculating the sum x + y and assigning the result to the first operands variable name x . You can set up the in-place addition behavior for your own class by overriding the magic “dunder” method \_\_iadd\_\_(self, other) in your class definition.

Q5. When is it appropriate to use operator overloading?

Ans: When one or both operands are of a user-defined class or structure type, operator overloading makes it easier to specify user-defined implementation for such operations. This makes user-defined types more similar to the basic primitive data types in terms of behaviour.