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

Ans:

- __iter__ : returns the iterator object, it is called at the start of the loop in the class
- __next__ : returns the incremented value, called at each loop increment

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

Ans: __str__ and __repr__ are two operator overloading methods that manage printing.
__repr__ is unambiguous, is used to print official string representation of an object
__str__ is readable, it is called by default whenever an object is referenced for printing internally

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

Ans: In a class use of slice() in __getitem__ method is used for intercept slice operation. This slice method is provided with start integer number, stop integer number and step integer number.
Example: __getitem__(slice(start,stop,step))

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

Ans: a+=b is inplace addition operation, it stores the value of addition in itself. In a class __iadd__ method is used for this in-place operation.

5. When is it appropriate to use operator overloading?

Ans: Operator overloading is used when we want to use an operator other than its normal operation to have different meaning according to the context required in the user defined function.