**Python Assignment 25**

1. **What is the difference between enclosing a list comprehension in square brackets and parentheses?**

**Ans:** A tuple is defined using parentheses whereas list is defiled using square brackets.

1. **What is the relationship between generators and iterators?**

**Ans:** Generators are a special kind of iterator that you use to avoid loading all elements of some of your data into memory. Using generators, you can render elements one-by-one whereas an iterator is an object which contains a countable number of values and it is used to iterate over iterable objects like list, tuples, sets, etc.

1. **What are the signs that a function is a generator function?**

**Ans:** A generator is a special type of function which does not return a single value, instead, it returns an iterator object with a sequence of values.

1. **What is the purpose of a yield statement?**

**Ans:** Yield statement returns a value and pauses the execution while maintaining the internal states.

1. **What is the relationship between map calls and list comprehensions? Make a comparison and contrast between the two.**

**Ans:** List comprehension returns a list, whereas the map function returns an object of Iterable. List comprehension execution is faster than that of map function when the formula expression is huge and complex.