Assignment 25

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

A list comprehension in square brackets creates list whereas parentheses create dictionaries or sets.

2) What is the relationship between generators and iterators?

An **iterator** in Python serves as a holder for objects so that they can be iterated over; a **generator** facilitates the creation of a custom iterator.

3) What are the signs that a function is a generator function?

If a function contains at least one yield statement, it becomes a generator function.

4) What is the purpose of a yield statement?

Yield is a keyword in function that is used to return from a function without destroying the states of its local variable and when the function is called the execution starts from the last yield statement

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

List comprehensions is more concise and easier to read as compared to map calls. List comprehensions are required when a list of results is required as map only returns a map object and does not return any list. Map is faster in case of calling and already defined function (as no lambda is required).