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

Answers: Square brackets are lists while parentheses are tuples. tuples are enclosed within parentheses. Lists are enclosed in brackets

2) What is the relationship between generators and iterators?

Answers: a. A python generator is an iterator: Generator in python is a subclass of Iterator.

b. Python iterator is an iterable: Iterator in python is a subclass of Iterable.

every generator is an iterator in Python, not every python iterator is a generator.

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

Answers: A generator returns a generator. In creating a python generator, we use a function. A generator in python makes use of the ‘yield’ keyword. A generator may have any number of ‘yield’ statements. To write a python generator, you can either use a Python function or a comprehension.

4) What is the purpose of a yield statement?

Answers: Yield is a keyword in Python 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. Any function that contains a yield keyword is termed a generator. Hence, yield is what makes a generator.

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

Answers: List comprehension is more concise and easier to read as compared to map. List comprehension are used 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 an already defined function (as no lambda is required).