Python basic assignment 25:

Q1) square bracket gives a list while parentheses gives a tuple. While lists are mutable, tuples are immutable.

Q2) Iterators use next method while generators use yield statement. Iterators give one value at a time while generators give all values at a time. Classes implement iterators while functions implement generators.

Q3) Generator has yield statement. Generators do not start execution immediately. Generator returns object (iterator). After the function yields, control is given to caller. Local variables are still remembered during successive calls. Stop iteration is automatically raised once function terminates.

Q4) Yield pauses execution of generator function and keeps providing values to code by looping over generator.

Q5) Both list comprehension and map aim at easing code writing by reducing codes to single lines. List comprehension is easier to read. List comprehension can filter. Map cannot return list and gives only map object. Map is faster if function is already defined.