Q1. Is an assignment operator like += only for show? Is it possible that it would lead to faster results at the runtime?

**Ans: Maybe it lead to faster results at the runtime, because the assignment operator will reduce one character in code so it will reduce the memory of program so it lead to faster results at the runtime**

Q2. What is the smallest number of statements you'd have to write in most programming languages to replace the Python expression a, b = a + b, a?

**Ans: we have to use temp variable to solve the same problem with help temp variable we can write the same statement**

Q3. In Python, what is the most effective way to set a list of 100 integers to 0?

**Ans: We can use list comprehension or loop to set a list of 100 integers to 0ss**

Q4. What is the most effective way to initialise a list of 99 integers that repeats the sequence 1, 2, 3? S If necessary, show step-by-step instructions on how to accomplish this.

**Ans: we can initialize the list of 99 integers by list comprehension that is list = [ I for I in range(1,100) ]**

Q5. If you're using IDLE to run a Python application, explain how to print a multidimensional list as efficiently?

**Ans: we can print the nested list by iterating the same list with help of for loop**

Q6. Is it possible to use list comprehension with a string? If so, how can you go about doing it?

**Ans: It can identify when it receives a string or a tuple and work on it like a list we can do that using loops However not every loop can be rewritten as list comprehension.**

Q7. From the command line, how do you get support with a user-written Python programme? Is this possible from inside IDLE?

**Ans: yes it is possible inside IDLE , we can get support from help() command in idle**

Q8. Functions are said to be “first-class objects” in Python but not in most other languages, such as C++ or Java. What can you do in Python with a function (callable object) that you can't do in C or C++?

**Ans: in Python, functions behave like any other object, That means that you can use functions as arguments to other functions, store functions as dictionary values, or return a function from another function.**

Q9. How do you distinguish between a wrapper, a wrapped feature, and a decorator?

**Ans: So basically wrapper is simply a function that calls the original function with some extra neat stuff added to it If you ever need to to wrap multiple functions the same way, you use decorators.**

Q10. If a function is a generator function, what does it return?

**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. In a generator function, a yield statement is used rather than a return statement.**

Q11. What is the one improvement that must be made to a function in order for it to become a generator function in the Python language?

**Ans: the keyword yield will improvement function in order for it to become a generator function in the Python language**

Q12. Identify at least one benefit of generators.

**Ans: Generators allow you to create iterators in a very pythonic manner. Generator Functions are better than Iterators.**