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

Both are actually same using += and using + operator for the target variable. However the += is little faster than only + operator as in case of + operator, the compiler has to check and assign the value to the final operand.

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?

We have to write only statement for this.

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

Simply assign the list to 0 and it will convert the list to 0

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.

print([1,2,3]\*33)

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

A=[[1,2],[2,3]]

print(A)

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

Yes, we can use list comprehensions with strings. We can go about doing by simply using join commands.

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

Just type **help** in IDLE or in command prompt. It will help you with the code.

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++?

Python functions do not have restrictions on the type of the arguments and on the type of return value whereas in case C/C++, there functions can return only predefined value

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

Wrapper around the functions are decorators that are used to modify the behaviour of the class or the function. The decorators helps programmers to extend the functionality of a program by taking a wrapped feature/ function to the existing function.

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

It will simply return generator class object

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?

It should be in numerical form to be a generator function in python.

Q12. Identify at least one benefit of generators.

They saves the memory and return the expected value whenever we need them.