Q1. The assignment operator like += is not just for show; it can lead to faster results at runtime. The reason is that some objects in Python are mutable, which means they can be changed in place, while others are immutable, which means they cannot be changed in place. For mutable objects, using an assignment operator can be more efficient than creating a new object and assigning it to the variable.

Q2. In most programming languages, you would need three statements to replace the Python expression a, b = a + b, a. First, you would need to create a temporary variable to hold the value of a. Then, you would assign b to a + b. Finally, you would assign the value of the temporary variable to a.

Q3. The most effective way to set a list of 100 integers to 0 in Python is to use a list comprehension:

```

my\_list = [0 for i in range(100)]

```

Q4. The most effective way to initialise a list of 99 integers that repeats the sequence 1, 2, 3 is to use a list comprehension:

```

my\_list = [i%3 + 1 for i in range(99)]

```

Q5. To print a multidimensional list efficiently in IDLE, you can use the pprint module, which stands for "pretty print". This module provides a function called pprint() that can be used to print any Python data structure in a formatted way. To use pprint() with a multidimensional list, you would first import the module and then pass the list as an argument to the pprint() function:

```

import pprint

my\_list = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]

pprint.pprint(my\_list)

```

Q6. Yes, it is possible to use list comprehension with a string. You can use the same syntax as with a list, but treat the string as an iterable:

```

my\_string = "hello"

new\_string = "".join([c.upper() for c in my\_string])

print(new\_string) # "HELLO"

```

Q7. From the command line, you can get support with a user-written Python program by using the `python -m` command followed by the name of the module you want to run. For example, to run a module called my\_module.py and get support for it, you would enter the following command:

```

python -m my\_module -h

```

This will run the module and display its help information. It is also possible to get support from inside IDLE by using the help() function.

Q8. In Python, functions are first-class objects, which means they can be treated like any other object. This allows you to pass functions as arguments to other functions, return functions from functions, and assign functions to variables. In C or C++, functions are not first-class objects, so you cannot do any of these things.

Q9. In Python, a wrapper is a function or class that wraps around another function or class to modify its behavior. A wrapped feature is the function or class that is being wrapped. A decorator is a special type of wrapper that uses the @ symbol and is applied to a function or class directly.

Q10. If a function is a generator function in Python, it returns a generator object when called. This generator object can be used to generate a sequence of values on the fly, rather than computing them all at once and storing them in memory.

Q11. The one improvement that must be made to a function in order for it to become a generator function in Python is to use the yield keyword instead of the return keyword. When the function is called