Assignment 3

**1. Why are functions advantageous to have in your programs?**

Functions help reduce code repetition, make programs easier to read and maintain, and allow for code reuse.

**2. When does the code in a function run: when it's specified or when it's called?**

The code in a function runs when the function is called.

**3. What statement creates a function?**

The 'def' statement is used to create a function in Python.

**4. What is the difference between a function and a function call?**

A function is a block of code defined to perform a task. A function call executes that block of code.

**5. How many global scopes are there in a Python program? How many local scopes?**

There is one global scope per program. Local scopes are created whenever a function is called.

**6. What happens to variables in a local scope when the function call returns?**

Local variables are destroyed when the function call completes and its local scope is exited.

**7. What is the concept of a return value? Is it possible to have a return value in an expression?**

A return value is the output that a function sends back after execution. Yes, return values can be used in expressions.

**8. If a function does not have a return statement, what is the return value of a call to that function?**

If a function lacks a return statement, it returns None by default.

**9. How do you make a function variable refer to the global variable?**

Use the 'global' keyword inside the function before using the variable.

**10. What is the data type of None?**

The data type of None is NoneType.

11. What does the sentence import areallyourpetsnamederic do?

It imports a module named 'areallyourpetsnamederic'. If the module doesn't exist, an error will occur.

12. If you had a bacon() feature in a spam module, what would you call it after importing spam?

You would call it using: spam.bacon()

1. 13. What can you do to save a programme from crashing if it encounters an error?

Use try-except blocks to handle exceptions and prevent the program from crashing.

1. 14. What is the purpose of the try clause? What is the purpose of the except clause?

The try clause contains code that might throw an error. The except clause defines how to handle that error if it occurs.