

## Assignment 3

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

Ans:- Functions reduce the need for duplicate code. This makes programs shorter, easier to read, and easier to update.

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

Ans: The code in a function executes when the function is called, not when the function is defined.

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

Ans: The def statement defines (that is, creates) a function.

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

Ans: A function consists of the def statement and the code in its def clause.

A function call is what moves the program execution into the function, and the function call evaluates to the function's return value.

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

Ans: There is one global scope, and a local scope is created whenever a function is called.

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

Ans: When a function returns, the local scope is destroyed, and all the variables in it are forgotten.

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

Ans: A return value is the value that a function call evaluates to. Like any value, a return value can be used as part of an expression.

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

Ans: If there is no return statement for a function, its return value is None.

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

Ans: A global statement will force a variable in a function to refer to the global variable.

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

Ans: The data type of None is NoneType.

**11. What does the sentence `import areallyourpetsnamederic` do?**

Ans: That import statement imports a module named `areallyourpetsnamederic`. (This isn't a real Python module, by the way.)

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

Ans: This function can be called with `spam.bacon()`.

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

Ans: Place the line of code that might cause an error in a try clause.

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

Ans: The code that could potentially cause an error goes in the try clause.

The code that executes if an error happens goes in the except clause.