

### Assignment No: 3

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

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

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

Answer - The code in a function executes when the function is called, not when the function is defined.

- **Question 3** - What statement creates a function?

Answer - The def statement defines, i.e. creates a function.

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

Answer - 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.

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

Answer - There is one global scope, and a local scope is created whenever a function is called.

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

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

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

Answer - 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.

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

Answer - If there is no return statement for a function, its return value is None.

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

Answer - A global statement will force a variable in a function to refer to the global variable.

- **Question 10** - What is the data type of None?

Answer - The data type of None is None Type.

- **Question 11** - What does the sentence `import areallyourpetsnamederic` do?

Answer - That import statement imports a module named `areallyourpetsnamederic`

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

Answer - This function can be called with `spam.bacon()`.

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

Answer - Place the line of code that might cause an error in a try clause.

- **Question 14** - What is the purpose of the try clause? What is the purpose of the except clause?

Answer - 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.