**Assignment - 3**

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

Ans: Functions are set of instructions written in a code block which perform a specific task. You can pass the values as parameters if required, into a function. Function can be called whenever required in the program and return the result. They enhance the reusability of code and modularity. Also 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: when it is called

3. What statement creates a function?

Ans: A function is created with the **def keyword**

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

Ans: Function is refers to the body of the function, which consists the whole code while function call refers to the statement which invoked the function after which the code inside body of function executes and return a value or perform a specific task.

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

Ans: There is only one global scope per program and there are as many local scopes are there as the number of functions or enclosed code blocks inside the program.

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

Ans: A local variable becomes undefined/ destroyed to release the memory occupied after the function call completes or return statement.

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

Ans: A return is the value that a function returns to the calling script or function when it completes its task. Yes like any other 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: None

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

Ans: by defining it using global keyword like this – global a = 10

10. What is the data type of None?

Ans: None type

11. What does the sentence import areallyourpetsnamederic do?

Ans: This will import areallyourpetsnamederic module.

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

Ans: spam.bacon()

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

Ans: We can use of try and except while writing the program. When it encounters an error, the control is passed to the except block, skipping the code in between. As seen in the below code, we have moved our code inside a try and except statement. Try running the program and it should throw an error message instead of crashing the program.

try:  
 logging.info("I am trying to open the file")  
 with open("sudh.txt","r"):  
 logging.info("Successfully read the file")  
except Exception as e:  
 logging.critical("This is critical")  
 logging.error(e) # ONLY log main error

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

Ans: The try block lets you test a block of code for errors. The except block lets you handle the error.