

PYTHON: ASSIGNMENT 3

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

SOLUTION- The main advantage of the function is its reusability. We can call a function by just its name and use it anywhere throughout the program. We don't have to write that long code again and again.

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

SOLUTION- When we call a function then the code in a function runs.

3. What statement creates a function?

SOLUTION- def keyword is used to create a function. Example: def summation ():

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

SOLUTION- A function is a block of code. And a function call is a statement by which we call that function and use its functionality. Example:

```
def func(a,b)
    return a + b
```

The code written above is a function.

```
a = func(6,9)
```

In the above code the value of a will be 15. So here we are calling the function.

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

SOLUTION- There is only one global scope per program. We can give n numbers of local scopes in python.

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

SOLUTION- The existence of that variable ends as the function call returns. Now that variable is dead for that program.

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

SOLUTION- A return statement is used to end the execution of the function call and returns the result. And the statements written after return statement are not executed.

No it is not possible to have a return value in an expression.

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

SOLUTION- If we don't use the return then the output of the function will be on None Type. So, return also gives the output in correct data type.

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

SOLUTION- By writing global before defining a variable. Example:

```
def myfun(a,b):
    global a    # this is a global variable inside a function
    a = b*c
    return a
```

10. What is the data type of None?

SOLUTION- None is a data type of its own (NoneType) and only None can be None.

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

SOLUTION- It will import the module `areallyourpetsnamederic`

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

SOLUTION- Will call it as `spam.bacon()`

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

SOLUTION- Place the line of code that might cause error in a `try` clause.

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

SOLUTION- `Try` is used to run a code that potentially cause an error. And `except` clause allow us to handle the error.