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

There are many advantages of function , which are as follow :

1.reusability of code : We can call a function multiple times without writing the same code repeatedly.

2.Modularity : It helps in break downing into smaller parts.

3. Abstraction : hide complex implementation

4. feature of passing a parameter

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

When it’s called

3. What statement creates a function?

"def" statement with the function name and a set of parentheses containing any parameters the function accept( if required).

Syntax :

def function\_name(‘parameters’)

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

Function is a block of code that performs a specific task when it’s called. It takes in required input parameters returns an output value after performing action according to the code written inside function. On the other hand, a function call is an act of invoking a function by specifying its name and providing any necessary input arguments.

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

A Python program has one global scope because it is created when the program starts running and exists throughout the program execution. A program has number of local scopes which is equal to number of function calls made during the program execution, because it exist only for the duration of the function call.

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

It get destroyed and deleted from the memory , because when a function is called, a new local scope is created for that function call , which contain all the parameters and variables defined in the function , and when the function call returns, this local scope is destroyed.

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

When a function is called, it perform some operation using input values (if any), and then it can return a value or a set of values to the calling code (if required). The return value can be used by the calling code.

Yes, it is possible to have a return value in an expression.

Eg

def fun1(a, b):

    return a + b

output = fun1(3, 5) \* 2 #we get 16 in output

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

None

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

Using global keyword inside the function . Using the global keyword to we can tell interpreter to use the global variable instead of creating a new local variable with the same name inside the function.

Eg

n = 9

def fun2():

  global n

  n=10

fun2()

print(n)#output is 10

10. What is the data type of None?

None is used to represent the absence of a value or a null value and get as return value when function has no return statement . It is considered as a data type of its own type in Python.

11. What does the sentence import areallyourpetsnamederic do?

It gives an Error of type ModuleNotFindError .

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

import spam

spam.bacon()

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

In this case we need to use concept of exception handling . we need to use try-except blocks ,because when an exception occur, the code inside the try block stops executing, and control is passed to except block, where we can handle the exception and prevent the program from crashing.

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

try clause is used to enclose a block of code that might raise an exception and except clause is to specify the action to take when an exception is raised. when an exception occur, the code inside the try block stops executing, and control is passed to except block, where we can handle the exception and prevent the program from crashing.