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

**Q1. Ans –**

Functions are mainly used to increase code reusability. It also makes the code very clean and increases the code readability. If we have a block of code that are being used very frequently then we can make that block of code so that it can be used on the go.

In other we can say that, Functions reduce the need for duplicate code and makes programs shorter, easier to read.

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

**Q2 Ans -** Whenever we call a function then only the code inside function will execute.

3. What statement creates a function?

**Q3 Ans –** def key word is used in python to create a function. Below is the syntax to create a function.

**Syntax** – def function\_name(parameter / parameters):

🡪 A Python function can have no parameter, one parameter or multiple parameters.

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

**Q4 Ans – Function** is the block of codes that is used to perform some specific tasks. In python we can create a function by using below syntax.

def function\_name(parameter / parameters):

return statement /print statement

However, function call is a process to call a function. A function can be called by function\_name with the argument.

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

There are four types of scopes in Python. These are mainly referred as **LEGB.**

1. Local Scope, 2. Enclosing Scope 3. Global Scope 4. Built-in scope

Global Scope and Built-in scopes can be further classified into global scope. Built-in scoped variable can be accessed anywhere in the code and similarly Global Scoped variable can be also accessed with in script anywhere. However, Global scoped variable can’t be accessed in built-in scope.

Local Scoped variable can be accessed with in block only. Outside of block it won’t be accessible.

Ex –

value =10

def add\_val (val):

val=val+value

return val

add\_val(value)

Here we can see that, global scoped variable “value” is being used in function too.

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

**Q6 Ans –** Whenever a function gets called, new local variable gets created if function has any local variable and these local variable gets expired when the function returns the value/values.

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

**Q7 Ans-** As we know that, functions are mainly used to perform some tasks based on argument/arguments passed. Thus, in pyhton we can use return statement to return action of the function. We can also return an expression directly.

Ex- def find\_square(num):

return num\*\*2

find\_square(5)

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

**Q8 Ans –** If a function doesn’t have explicit return statement in that case python will implicitly returns a default value and this default value will be None.

Ex

def sum(a,b):

print(a+b)

addition=sum(4,3)

print(addition) # This will print None value as None has been returned by function as it doesn’t have any return statement.

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

**Q9 Ans** - We can refer a global scoped variable inside a python function using global keyword.

Ex-

course = ‘FSDS’

def getcourse\_name():

global course

course=’Full stack Data science Bootcamp course’

return course

print(getcourse\_name())

10. What is the data type of None?

**Q10 Ans –** In python None is used to refer null value or no value and None is adata type of the class NoneType object.

11. What does the sentence import areallyourpetsnamederic do?

**Q11 Ans-** In python import statement is used to import any library, module or script. Here, sentence import areallyourpetsnamederic will import module/script areallyourpetsnamederic in current script. By importing we can further use properties or methods of this module/script.

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

**Q12. Ans**

import spam

spam.bacon()

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

**Q13 Ans-** We can save our programme from crashing during execution by using proper error handling techniques. As we know that exception can’t be created and can’t be destroyed it can only be handled. So, in python we have mentioned below technics through which we can save our programme from crashing.

1. try & except block
2. multiple exceptions blocks
3. Finally clause
4. User defined exception

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

**14 Ans –** in python try and except blocks are used to save a programme from crashing during runtime. Python processes all code inside the try and except statement. When it encounters an error, the control is passed to the except block, skipping the code in between.

Ex-

def add\_two\_numbers(a, b):

try:

return a + b

except Exception as e:

return 'Error occurred in try block: ' + str(e)

print(add\_two\_numbers(1000,'ineuron'))