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

Ans:- repeated steps can be grouped in a function. Need not to write redundant codes. Functions are used to encapsulate computations and return values that can be used in expressions or assigned to variables.

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

Ans:- When the function is called the code in a function body runs.

1. What statement creates a function?

Ans:- def func():

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

Ans:- a function is when we define a function with “def function():” and write some code in its body. Whereas a function call is when the function is invoked to be executed when on need.

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

Ans:- There is only **one** global scope in Python program. The variable, function defined in global scope is accessible by all in the program.

Variables declared in local scopes are independent of others and can not be accessed from outside of the scope. Various local scopes are as follows:

Function scopes: Every time a function is called, a new local scope is created for that function. Variables defined within the function are local to that function's scope and are not accessible outside of it.

Method scopes: Similar to function scopes, methods in classes have their own local scopes. Each instance of a class creates a new scope for its methods.

Loop scopes: Loops such as for and while can create local scopes. Variables defined within the loop's body are local to that loop's scope and are not accessible outside of it.

Conditional scopes: Conditional statements like if, else, and elif can also create local scopes. Variables defined within these blocks are local to the respective block's scope.

Comprehension scopes: List comprehensions, dictionary comprehensions, and generator expressions introduce their own local scopes. Variables defined within these expressions are local to the expression's scope.

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

Ans:- When the function call returns, local scope associated with that function is destroyed, and any variables defined within that local scope cease to exist which helps free up memory resources.

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

Ans:- If the function has a return statement, it can provide a value back to the caller.

It is not possible to have a return value in a Python expression. In Python, expressions are used to produce values, but they do not have a return value themselves.

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

Ans:- If a function does not have a return statement, or if the return statement is omitted, the function will implicitly return None. None is a special object in Python that represents the absence of a value.

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

Ans:

In Python, if you want a function variable to refer to a global variable, you can use the global keyword to indicate that the variable is global.

Example:

*x = 10 # Global variable*

*def modify\_global():*

*global x # Declare 'x' as a global variable*

*x = 20 # Modify the global variable 'x'*

*print(x) # Output: 10*

*modify\_global()*

*print(x) # Output: 20*

1. What is the data type of None?

Ans:

If a function does not have a return statement, or if the return statement is omitted, the function will implicitly return None. None is a special object in Python that represents the absence of a value.

The None value can be useful when you want a function to perform some actions or side effects without returning any meaningful result.

1. What does the sentence import areallyourpetsnamederic do?

Ans:

The sentence import all function and variables of the module areallyourpetsnamederic.

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

Ans:

*import spam*

*spam.bacon()*

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

Ans:

The error need to be handled. The code which produces error has to be encapsulated in try block. The error is to be handled in except block.

try:

except:

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

Ans:

When program throws error it should be handled so that program should not failed. For this error to be handled try block is used. When error is thrown from try block it has to be handled in except block.