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

**Ans:-** Functions are advantageous to have in the program because by using them you can complete your code in a shorter lines or shorter period of time because if you use functions you don’t need to write additional lines of codes to let your functions to give required output. For example, we use len() functions to print the length of string, list etc, but on the other hand if you want to check the len() of the string , list or anything but you don’t want to use len() function, then you will be needed to write additional lines of code to check the length of string and code will get lengthy, so you can avoid the code to be lengthy by using functions and you can also save time by using functions.

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

**Ans:-** The code in a function runs when it’s called because when we call the function we provide the values to the code inside a function call for the code to run and give the expected result.

3. What statement creates a function?

**Ans:- Def function\_name()** statement creates function, on the place of function name, you need to provide the name of function as you want to name it so you can understand it, and inside you need to define the variable names whose values we will enter inside the function call whenever we call the function.

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

**Ans:-** The difference between function and function call is that when we define a function, then after defining it we write a code inside it according to our requirement or what we want an output from the code but on the other hand, when we call the function, we provide the values inside a function call for the code which we wrote inside a function after defining it, to run and provide the expected output.

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

**Ans:-** A python program have only one global scope per program and any functions or code block defined outside of a function got considered in a global scope. On the other hand, The number of local scopes depends on the number of functions and numbers of code blocks are in the program. Each time, a function is called, a new local scope got created for that function.

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

**Ans:-** When a function call returns, The variable defined inside the function scope get destroyed and and their memory also get released along with it. This means thay any values which were assigned to these variable are lost and we can not access it outside the function’s scope.

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

**Ans:-** After writing a complete code inside a define statement, we use a return statement to return the result of a function which the function will return after completing its execution, we can assign the variable, expression etc to the return statement to return. The value which return statement returns after the code has completed its execution, is called a return value.

Yes, It is possible o 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?

**Ans:-** If a function does not have a return statement, then the return value of a function call will always be “none” by default.

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

**Ans:-** When we create a variable inside a function, that variable is called a local variable and can only be used inside that function, so for creating a global variable inside the function or we can refer to a global variable inside the function by using a ‘global’ keyword.

10. What is the data type of None?

**Ans:-** The data type of None is “None”, because the ‘none’ represents the null value.

11. What does the sentence import aeallyourpetsnamederic do?

**Ans:-** The sentence ‘import aeallyourpetsnamederic’ is not a valid python statement and it will raise a syntax error if executed. In python, the import statement is used to import a module or a specific function.

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

**Ans:-** If we have a bacon() feature in a spam module, then after importing, we can call it as **spam.bacon().**

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

**Ans:-** We can use the exception handling technique to save a program from crashing if encounters an error. In exception handling we use the ‘try’ and ‘except’ clause to handle exceptions, it will allow your program to run continuously even if it encounters an error. We also use ‘else’ and ‘finally’ clause inside exception handling.

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

**Ans:-**  The purpose of the ‘try’ clause is to check whether a code inside a ‘try’ clause is raising an exception or not. If the code inside ‘try’ clause raises an exception, then the code inside an ‘except’ clause works. The purpose of the ‘except’ clause is to take appropriate actions if the code inside a ‘try’ clause is raising an exception. The ‘except’ clause can also be used to check specific types of exceptions and perform actions according to the errors.