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

Ans:

- This Python Function help divide a program into modules. This makes the code easier to manage, debug, and scale.
- It implements code reuse. Every time you need to execute a sequence of statements, all you need to do is to call the function.
- This Python Function allow us to change functionality easily, and different programmers can work on different functions.

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

Ans:

When a function is "called" the program "leaves" the current section of code and begins to execute the first line inside the function. Thus the function "flow of control" is:

The program comes to a line of code containing a "function call".

The program enters the function (starts at the first line in the function code).

All instructions inside of the function are executed from top to bottom.

The program leaves the function and goes back to where it started from.

Any data computed and RETURNED by the function is used in place of the function in the original line of code.

3. What statement creates a function?

Ans: def fn(arg1, arg2,...):

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

Ans:

A function is a block of code that does a particular operation and returns a result. It usually accepts inputs as parameters and returns a result. The parameters are not mandatory.

E.g:

Function add(a,b)

return a+ b

A function call is the code used to pass control to a function.

E.g.:

b = add(5,6)

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

Ans:

There’s only one global Python scope per program execution. This scope remains in existence until the program terminates and all its names are forgotten. Otherwise, the next time you were to run the program, the names would remember their values from the previous run.

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

Ans:

An assignment statement in a function creates a local variable for the variable on the left hand side of the assignment operator. It is called local because this variable only exists inside the function and you cannot use it outside

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

Ans:

In general, a function takes arguments (if any), performs some operations, and returns a value (or object). The value that a function returns to the caller is generally known as the function's return value.

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

Ans:

If no return statement appears in a function definition, control automatically returns to the calling function after the last statement of the called function is executed. In this case, the return value of the called function is undefined.

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

Ans:

Variables that are created outside of a function (as in all of the examples above) are known as global variables.

Global variables can be used by everyone, both inside of functions and outside.

Example

x = "awesome"

```
def myfunc():

  print("Python is " + x)

myfunc()
```

10. What is the data type of None?

Ans:

The None keyword is used to define a null value, or no value at all. None is not the same as 0, False, or an empty string. None is a data type of its own (NoneType) and only None can be None.

11. What does the sentence import areallyourpetsnamederic do?

Ans:

It imports the predefined module named areallyourpetsnamederic, to the current code its imported into giving the code a access to all the modules attributes, and functions and so on.

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

Ans:

```
Import spam

print(spam.bacon())
```

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

Ans:

If an error occurs in a program, we don’t want the program to unexpectedly crash on the user. Instead, error handling can be used to notify the user of why the error occurred and gracefully exit the process that caused the error.

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

Ans:

- In the try clause, all statements are executed until an exception is encountered.
- And except is used to catch and handle the exception(s) that are encountered in the try clause.