

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

Solution: Advantages of having functions to have in your programs are:

- 1) Same code need not be written again. So length of the source program decreases.
- 2) As the program length decreases, the memory required for the program also decreases.
- 3) We can call function any number of times from any place.
- 4) As the program length decreases, time taken for to write program.
- 5) Functions reduces the needfor duplicate code this makes programs shorter , easier to read, and easier to update.

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

Solution The code in the function gets executed only when the function is called

3. What statement creates a function?

Solution: The def statement defines(that is it creates function using this specific keyword in python)

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

A function is a snippet code which enhanced the reusability and modularity of your program.

It means that snippet code need not be written again.

```
def add(int x, int y) //function definition
```

```
return(x+y)
```

```
main //main program
```

(remember this is also a function)

```
Int a=5,b=10,c;
```

```
C=add(a,b); //function CALL
```

```
Print("Addition result is %d",c)
```

In the above function a,b are formal parameters used in function call, while “x,y” are actual parameters used in the function

A function consists of def statement and a function call evaluates functions return value.

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

Solution: There is one global scope and a local scope is created whenever a function is called

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

Solution A local variable retains its value until the next time the function is called A local variable becomes undefined after the function call completes The local variable can be used outside the function any time after function completes.

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

Solution A return value is the value that a function call evaluates like any value, a return value can be a part of your expression.

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

Solution If there is no return statement in the function then the function will return value as none

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

Solution: A global statement will enforce a variable in a function to refer to the global variable

10)What is the data type of None?

Solution The data type of None is NoneType.

11. What does the sentence `import re` do?

Solution: It will import the `re` module

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

Solution: This function can be called with `spam.bacon()`.

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

Solution Try running the program and it should throw an error message instead of crashing a program.

The reason for the exception is also returned as exception.

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

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