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

Function reduces need for writing duplicate code again and again, also it makes program easy to read and debug , write unit test, easy to maintain, short programs. Functions can also be used in other programs. Functions can improve performance also.

Functions improves readability, maintainability - so changes done at function gets reflected in complete code, it also improve testability as by writing code into functions, its easier to write unit tests.

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

When its called

**3. What statement creates a function?**

def statement creates a function

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

Function is block of code, function call is act of invoking a function. Function takes parameters to be used inside code, whereas function call takes arguments passed to function after invoking it.

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

Typically 1 global scopes defined outside of function.

There can be many local scope, defined inside function, new local scope created each time a function is called and gets destroyed when function completes execution.

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

Local scope gets destroyed when function call returns

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

Return values in function is value returned by function, it can be of data type like int, a string, a list or a dictionary.

yes, it is possible to have return value in expression by assigning value of function to a variable.

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

None

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

Global word can be used inside function, if variable to be referred is global variable.

Or Non local word can be also used.

x = 10

def my\_fun():

global x

x = x+1

return x

print(my\_fun())

print(x)

**10. What is the data type of None?**

NoneType

**11. What does the sentence import areallyourpetsnamederic do?**

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

Import spam

spam.bacon()

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

a. Using exception handling:

try:

# This code may raise an error

except Exception as e:

# Handle the error here

print(e)

b. Use logging:  Logging is a way of recording errors that occur in your program. This can be helpful for debugging and troubleshooting errors.

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

**Try:** checks code for errors

**Except:** if errors occurs, this block gets executed, it helps program to control the flow of program if error occurs in try block.