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

Ans Functions are advantageous because of following reasons : -

**Code reusability** – function allow you to reuse cod in multiple places within your program.

**Modularity** - function help breakdown complex programs into smaller more pieces.

**Abstraction** – Python funtions allow you to abstract away the implementation

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

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

Ans – In python the **‘ def’** statement used to defone function .

**def function\_name(parameters)**

**Statement name(s)**

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

Ans – A function is block of code that performs a specific task or set tasks. It is defined with the “def” in python and has a name and a set of parameters

Block code that is excuted when function is called

Example # Function definition

def greet(name):

print("Hello, " + name + "!")

# Function call

greet("John")

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

**Ans -** There is typically one global scope which includes variables , functions and classes defined in the program.

Local scope depends in a python program depends on number of functions calls.

**6. What happens to variables in a local scope when the function call returns?**Ans – When function call returns the local scope associated with that fucntion destroyed and any variab;e defined with in scope are lost.

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

Ans – return value is a value that a function or method sends back to the calling statement or expression.

Yes it is possible to have 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 – The function will still excute and perform operations or computations that are defined within its body.

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

Ans – Function variable refer to a global variable with the same name you can use the global keyword inside the function

Example : - x = 10

def my\_function():

global x

x = 5

print("Inside the function, x is:", x)

my\_function()

print("Outside the function, x is:", x)

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

Ans - it is data type of its own called ‘NoneType’

11. What does the sentence import are all yourpetsnamederic do?

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

Ans – we can call bacon() function using dot notation ‘ spam.bacon()’.

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

Ana-s - Use exception handling use ‘try’-‘except’

Check input values

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

Ans – The purpose of try clause is to enclose a block code that may raise an exception during execution.

The purpose of except clause is to handle the exception that was raised in the try block.