ASSIGNMENT-3

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

Ans:Functions is a very import concept in any programming language because by using the concept of function we can increase the reusability of the code.one more advantage of using functions is if our program is too large we can divide that entire program in to separate functions,which is simple to track the code.

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

Ans: The code in a function does not run when it is specified, it will actually run when it is called.

Ex:

```
def fun(a,b):
   Return a+b
K=fun(4,3)
```

7

3. What statement creates a function?

Ans: The statement def creates the function with out the def we can not able to create the function.

```
def fact(n):
k=1
   for i in range(1,n+1):
      k=k*i
   return k
d=fact(5)
print(d)
```

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

AnsThe difference between function and function call is in function we write the piece of code that we want to execute.function call means we are calling the function or we are invoking the function.unless a function is called there is no use of the function.

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

Ans:There is only one global scope until the complete program executes.This scope will remain in existence until the program terminates.The global scope means the variable is created at the outside of the function.And the change in value of the variable inside the function will not the effect it outside of the function.

There is only one local scope in python.Local scope means the variable is created inside of the function it is limited to that particular function only if we try to use it outside of the function it will throw a error.

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

Ans:As we know that the scope of the local variable is restricted to the function itself and for each function call it creates a new local variable and their life time expires when the function returns to the caller.

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

Ans:The concept of return value is when we define a function we do some calculations in the function and we need to access those results in the main function in that we case we use the keyword return which return the value to the variable that assigned to it.

Ex

```
def addition(a,b):
    return a+b
```

```
n1=int(input())

n2=int(input())

k=addition(n1,n2)

print(k)
```

Output:

10

20

30

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

Ans: If the function does not have a return statement,the value that is returned by that call function is “None”.

Ex:

```
def addition(a,b):

    pass

k=addition(10,20)

print(k)
```

output:

None

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

Ans: we can make the function variable as global variable by using the keyword global

Ex

```
def function():
   global name
   name='python'
function()
print('the name of the programming language is: ',name)
```

output:

the name of the programming language is python

10. What is the data type of None?

Ans:The data type of None is ‘NoneType’.

11. What does the sentence import areallyourpetsnamederic do?

Ans:The import statement actually imports a module hence the above statement import areallyourpetsnamederic imports a module if it is present otherwise it will throw a ModuleNotFoundError.

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

Ans:The function bacon() can be called by using the statement spam.bacon()

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

Ans: To save the program from encountering an error we need to write that piece of code in try block,hence we can be able to handle the error in except block.

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

Ans: The try clause usually checks if the code have any kind of errors.If we have any doubt on the code that if it may throw an error we usually write in try block.The except block handle the errors. If any error is found in try block those errors can br handled in except block.