1. What is the result of the code, and explain?

>>> X = 'iNeuron'

>>> def func():

print(X)

>>> func()

Ans. It will print iNeuron as the function func() returns the value the value of X

2. What is the result of the code, and explain?

>>> X = 'iNeuron'

>>> def func():

X = 'NI!'

>>> func()

>>> print(X)

Ans. It will print iNeuron as the value of X is globally defined as iNeuron which is not affected by the value which is initialized inside the func()

3. What does this code print, and why?

>>> X = 'iNeuron'

>>> def func():

X = 'NI'

print(X)

>>> func()

>>> print(X)

Ans. In the func() call it will print NI! as the value of X is defined as NI! Inside the function and in the next line it will print iNeruron as it refers to the global X which is not affected by the function

4. What output does this code produce? Why?

>>> X = 'iNeuron'

>>> def func():

global X

X = 'NI'

>>> func()

>>> print(X)

Ans . here it will print NI! For both func() and X as in the func() we are reffering tthe global X and changing its value to NI! ,by global I mean the X = iNeuron one as its defined outside the function and is changed.

5. What about this code—what’s the output, and why?

>>> X = 'iNeuron'

>>> def func():

X = 'NI'

def nested():

print(X)

nested()

>>> func()

>>> X

Ans. It will print NI! In the func() as in the func() we are assigning a variable X as NI! and define a nested function inside it will prints the value of X as the nested() is inside another function(“func()) it will access X of its parent class(‘func()”) thats why it print NI! And in last line it refers to the global X with value iNeuron

6. How about this code: what is its output in Python 3, and explain?

>>> def func():

X = 'NI'

def nested():

nonlocal X

X = 'Spam'

nested()

print(X)

>>> func()

Ans. We have a nested function (nested()) which has a nonlocal variable X which means its neither global nor local. In the func() we initialize value of X as “NI!” then create a nested function with a nonlocal variable X which now takes In subsequent entries and the result will be new x. then we assigne x as Spam and call the nested() and print value of X which will come out to be Spam