Only written answers here as the questions had some formatting issue.

1. Output : ‘iNeuron

Explaination: The function func prints the value of the global variable X, which is 'iNeuron'.

1. Output: ‘iNeuron’

Explanation: The function func assigns the local variable X the value 'NI!', but this does not affect the global variable X. Hence, when print(X) is called, it prints the global variable X which is 'iNeuron'.

Output:

NI

iNeuron

Explanation: Inside the function func, a local variable X is assigned the value 'NI', and it prints this local value. Outside the function, the global variable X ('iNeuron') is printed.

1. Output: NI

Explanation: The global keyword inside the function func makes the assignment affect the global variable X. Therefore, when print(X) is called, it prints the updated global value, which is 'NI'.

Output:

NI

iNeuron

Explanation: Inside the nested function nested, it prints the value of the local variable X from the enclosing scope (func). Outside the function, the global variable X ('iNeuron') is printed.

1. Output: Spam

Explanation: The nonlocal keyword inside the nested function nested indicates that X refers to the variable in the nearest enclosing scope (func). So, when nested() is called, it modifies the value of X in func, and print(X) inside func then prints 'Spam'.