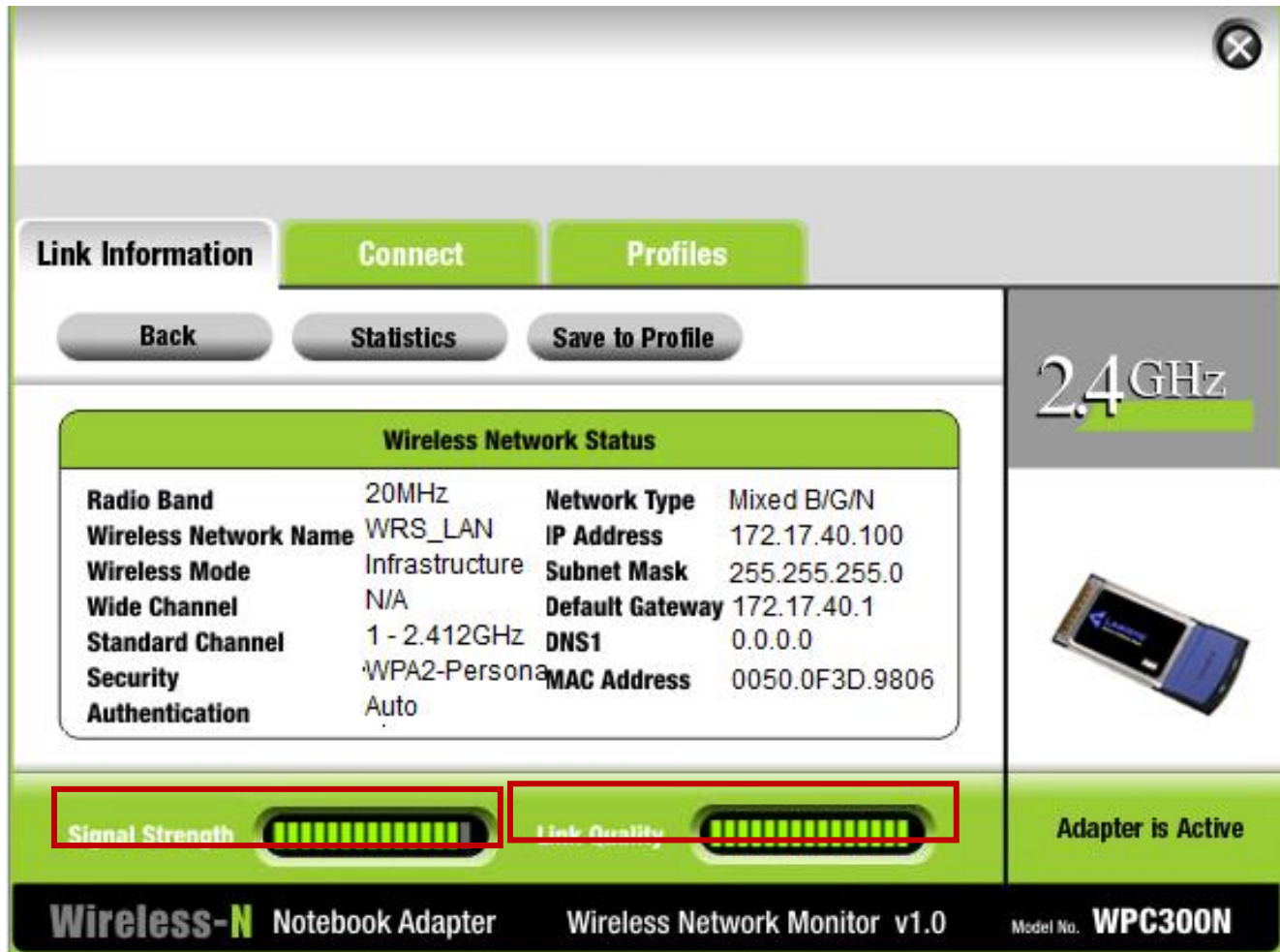# BÁO CÁO THỰC HÀNH LAB 3 MẠNG MÁY TÍNH
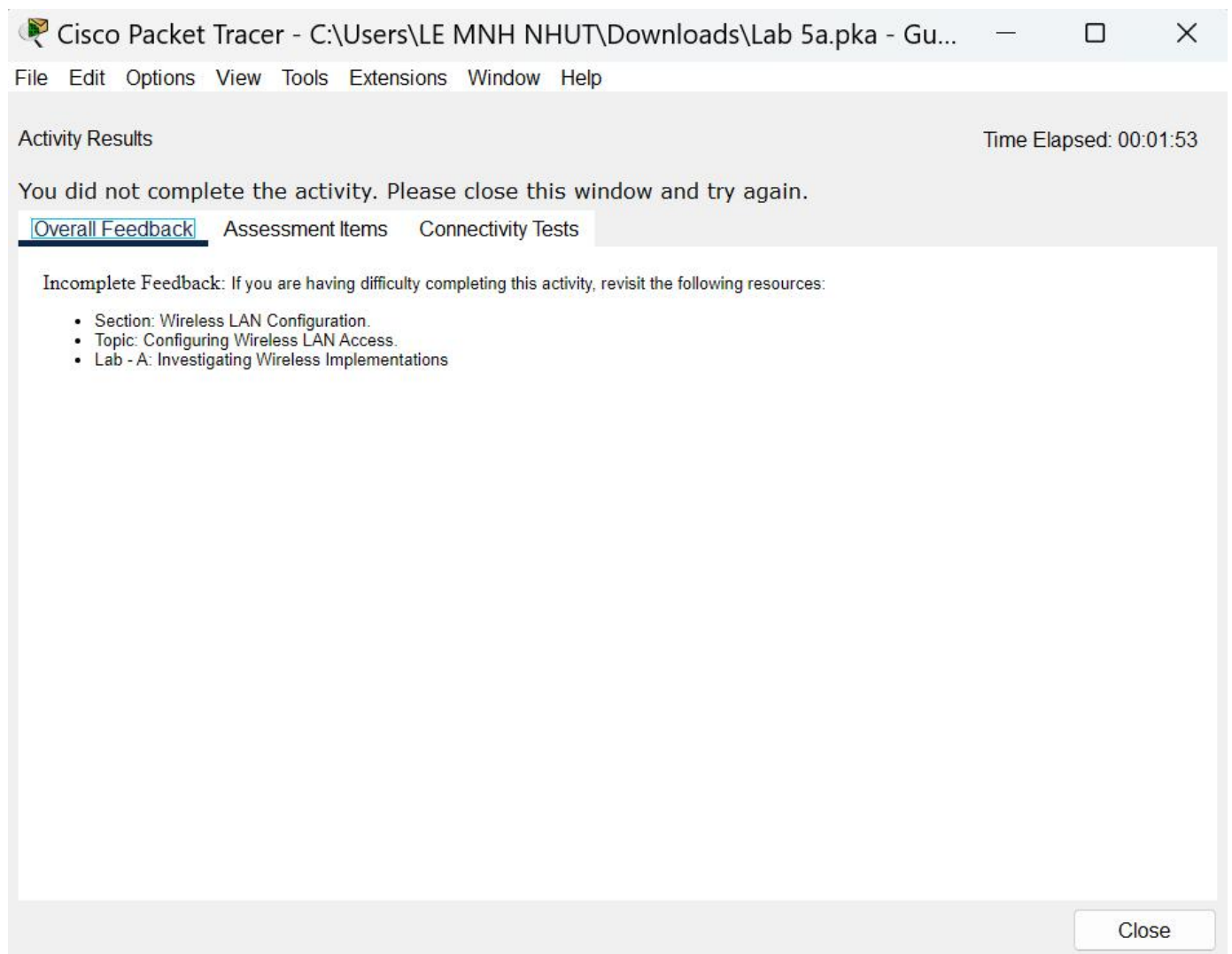
Tên: Lê Minh Nhựt

MSSV: 22521060

1. Task 1: Cấu hình thiết bị mạng không dây

1.5 Kiểm tra kết quả kết nối.

Hình 1.5: Thông tin chi tiết cấu hình địa chỉ IP

1.6 Kiểm tra kết quả thực hành.

Hình 1.6a: Kết quả tổng quát khi đã thực hiện cấu hình

Cisco Packet Tracer - C:\Users\LE MNH NHUT\Downloads\Lab 5a.pka - Guest - 2023-12-12 14:16:58

File Edit Options View Tools Extensions Window Help

Activity Results

Time Elapsed: 00:06:59

You did not complete the activity. Please close this window and try again.

Overall Feedback   Assessment Items   Connectivity Tests

Expand/Collapse All   Show Incorrect Items

Score   : 90/100
Item Count   : 11/13

Assessment Items	Status	Points	Component(s)	Feedback
⊟ Network				
⊟ PC3				
⊟ Wireless				
⊟ Security Mode				
✔ Authen Type	Correct	1	Wireless Client C...	
✔ Pass Phrase	Correct	4	Wireless Client C...	
✔ SSID	Correct	5	Wireless Client C...	
⊟ WRS2				
⊟ (deprecated) DHCP Server				
✔ (deprecated) DHCP Enable	Correct	10	Wireless Router C...	
⊟ (deprecated) Pools		0	Ip	
⊟ (deprecated) Pool linksysPool		0	Ip	
✔ (deprecated) Default Gateway	Correct	10	Wireless Router C...	
✔ Default Gateway	Correct	10	Wireless Router C...	
⊟ Ports				
⊟ Internet				
✔ IP Address	Correct	10	Wireless Router C...	
⊟ Link to S1				
✖ Connects to FastEthernet0/7	Incorrect	5	Device Connection	
✖ Type	Incorrect	5	Device Connection	
⊟ Wireless		0	Other	
⊟ Security Mode				
✔ Authen Type	Correct	10	Wireless Router C...	
✔ Pass Phrase	Correct	10	Wireless Router C...	
✔ SSID	Correct	10	Wireless Router C...	
✔ SSID BroadCast	Correct	10	Wireless Router C...	

Component	Items/Total	Score
Device Connection	0/2	0/10
Wireless Client Configuration	3/3	10/10
Wireless Router Configuration	8/8	80/80

Close

Hình 1.6b: Kết quả chi tiết khi đã thực hiện cấu hình

2. Task 2: Cấu hình địa chỉ IP trên router.

2.2 Kiểm tra cấu hình.

R1:

```
R1#show run
Building configuration...

Current configuration : 1218 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
!
!
!
!
!
!
ip cef
no ipv6 cef

R1#show ip interface brief
Interface            IP-Address       OK? Method Status                Protocol
GigabitEthernet0/0   192.168.10.1     YES manual up                    up
GigabitEthernet0/1   192.168.11.1     YES manual up                    up
Serial0/0/0          209.165.200.225  YES manual up                    up
Serial0/0/1          unassigned       YES unset  administratively down down
FastEthernet0/1/0    unassigned       YES unset  administratively down down
FastEthernet0/1/1    unassigned       YES unset  administratively down down
FastEthernet0/1/2    unassigned       YES unset  administratively down down
FastEthernet0/1/3    unassigned       YES unset  administratively down down
Vlan1                unassigned       YES unset  administratively down down
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

D    10.0.0.0/8 [90/2170112] via 209.165.200.226, 00:09:19, Serial0/0/0
     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.10.0/24 is directly connected, GigabitEthernet0/0
L       192.168.10.1/32 is directly connected, GigabitEthernet0/0
     192.168.11.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.11.0/24 is directly connected, GigabitEthernet0/1
L       192.168.11.1/32 is directly connected, GigabitEthernet0/1
     209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D       209.165.200.0/24 is a summary, 00:12:33, Null0
C       209.165.200.224/30 is directly connected, Serial0/0/0
L       209.165.200.225/32 is directly connected, Serial0/0/0
```

R2:

```
R2#show run
Building configuration...

Current configuration : 923 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R2
!
!
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
!
!
!
!
!
ip cef
no ipv6 cef

R2#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     10.1.1.1        YES manual up                    up
GigabitEthernet0/1     10.1.2.1        YES manual up                    up
Serial0/0/0            209.165.200.226 YES manual up                    up
Serial0/0/1            unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     10.0.0.0/8 is variably subnetted, 5 subnets, 3 masks
D       10.0.0.0/8 is a summary, 00:10:45, Null0
C       10.1.1.0/24 is directly connected, GigabitEthernet0/0
L       10.1.1.1/32 is directly connected, GigabitEthernet0/0
C       10.1.2.0/24 is directly connected, GigabitEthernet0/1
L       10.1.2.1/32 is directly connected, GigabitEthernet0/1
D    192.168.10.0/24 [90/2170112] via 209.165.200.225, 00:13:59, Serial0/0/0
D    192.168.11.0/24 [90/2170112] via 209.165.200.225, 00:12:52, Serial0/0/0
     209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D       209.165.200.0/24 is a summary, 00:10:45, Null0
C       209.165.200.224/30 is directly connected, Serial0/0/0
L       209.165.200.226/32 is directly connected, Serial0/0/0
```

PC1 -> PC4

```
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.1.2.10

Pinging 10.1.2.10 with 32 bytes of data:

Request timed out.
Reply from 10.1.2.10: bytes=32 time=19ms TTL=126
Reply from 10.1.2.10: bytes=32 time=10ms TTL=126
Reply from 10.1.2.10: bytes=32 time=10ms TTL=126

Ping statistics for 10.1.2.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 19ms, Average = 13ms
```
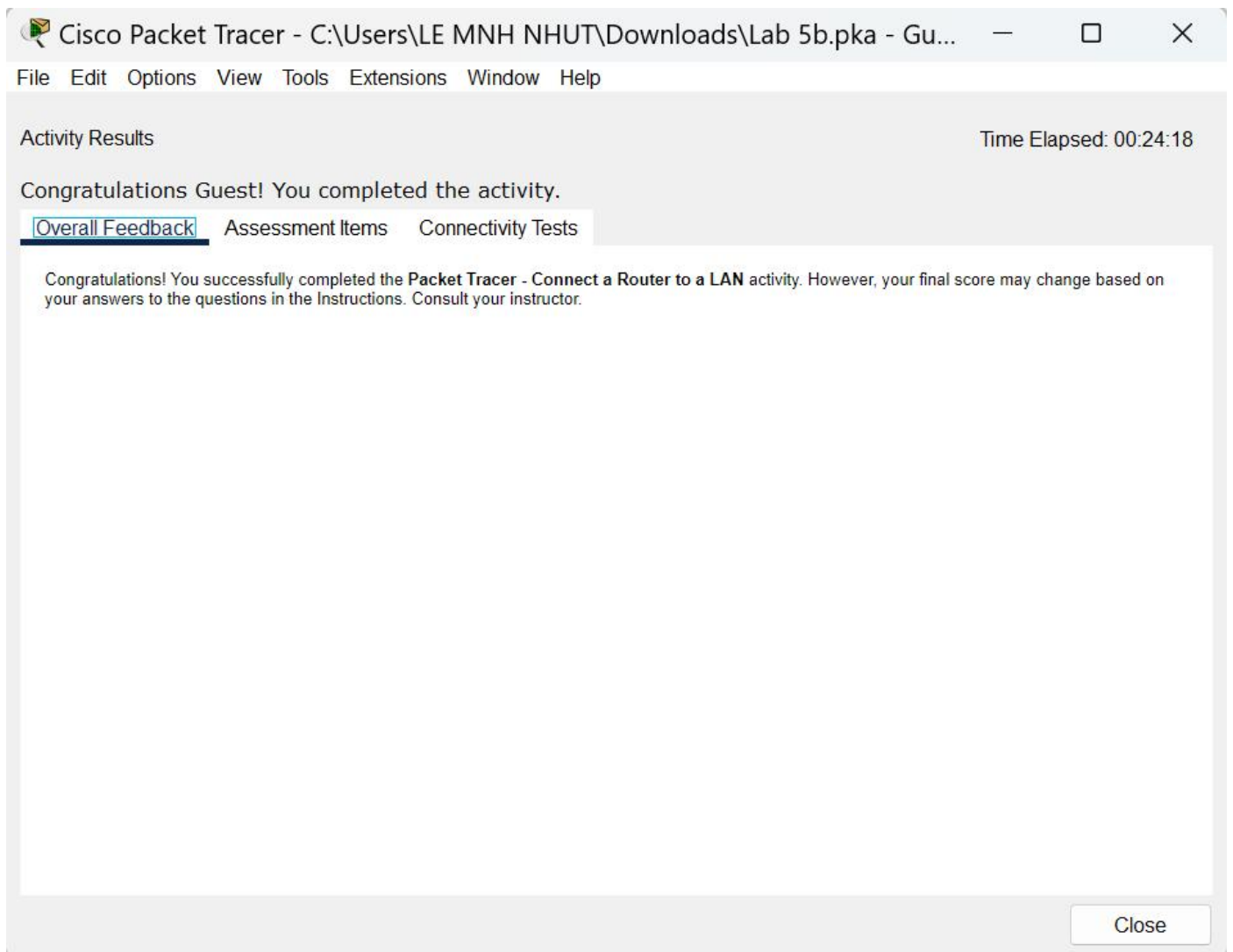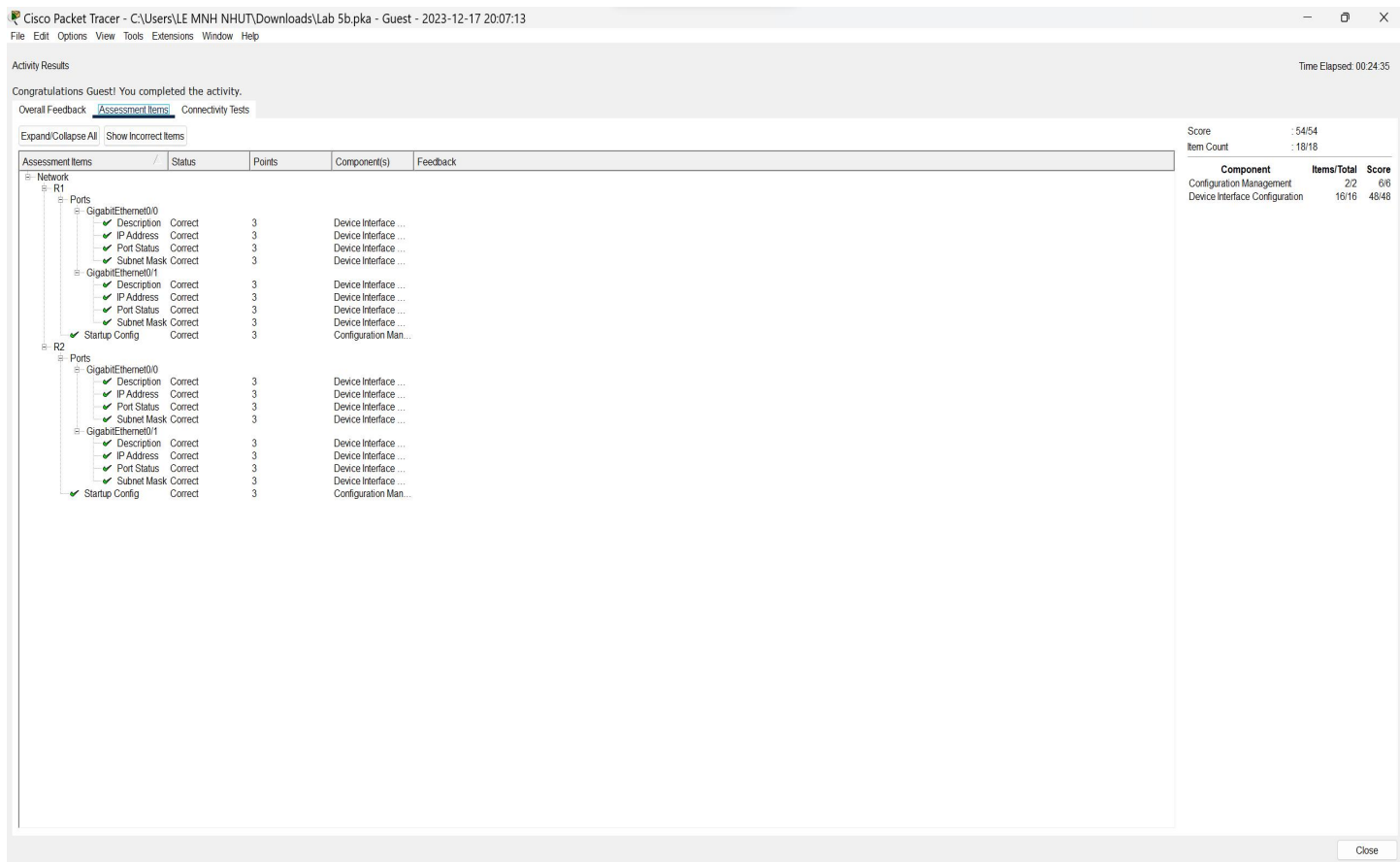
R2 -> PC2

```
R2#ping 192.168.11.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.11.10, timeout is 2 seconds:
.!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 6/8/11 ms
```

2.3 Kiểm tra kết quả thực hành.

Hình 2.3a. Kết quả kiểm tra tổng quát

Hình 2.3b. Kết quả kiểm tra chi tiết

3. Task3: Áp dụng địa chỉ IP

3.1 Chia mạng con và phân bổ IP

- Có 8 mạng con.

STT	Địa chỉ mạng	Địa chỉ đầu	Địa chỉ cuối	Địa chỉ broadcast
0	192.168.100.0	192.168.100.1	192.168.100.30	192.168.100.31
1	192.168.100.32	192.168.100.33	192.168.100.62	192.168.100.63
2	192.168.100.64	192.168.100.65	192.168.100.94	192.168.100.95
3	192.168.100.96	192.168.100.97	192.168.100.126	192.168.100.127
4	192.168.100.128	192.168.100.129	192.168.100.158	192.168.100.159
5	192.168.100.160	192.168.100.161	192.168.100.190	192.168.100.191

6	192.168.100.192	192.168.100.193	192.168.100.222	192.168.100.223
7	192.168.100.224	192.168.100.225	192.168.100.254	192.168.100.255

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0	192.168.100.1	255.255.255.224	N/A
	G0/1	192.168.100.33	255.255.255.224	N/A
	S0/0/0	192.168.100.129	255.255.255.224	N/A
R2	G0/0	192.168.100.65	255.255.255.224	N/A
	G0/1	192.168.100.97	255.255.255.224	N/A
	S0/0/0	192.168.100.158	255.255.255.224	N/A
S1	VLAN 1	192.168.100.2	255.255.255.224	192.168.100.1
S2	VLAN 1	192.168.100.34	255.255.255.224	192.168.100.33
S3	VLAN 1	192.168.100.66	255.255.255.224	192.168.100.65
S4	VLAN 1	192.168.100.98	255.255.255.224	192.168.100.97
PC1	NIC	192.168.100.30	255.255.255.224	192.168.100.1
PC2	NIC	192.168.100.62	255.255.255.224	192.168.100.33
PC3	NIC	192.168.100.94	255.255.255.224	192.168.100.65
PC4	NIC	192.168.100.126	255.255.255.224	192.168.100.97

3.2 Cấu hình thiết bị

R1:

```
R1>enable
R1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#interface gigabitethernet 0/0
R1(config-if)#ip address 192.168.100.1 255.255.255.224
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
^Z
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#interface gigabitethernet 0/1
R1(config-if)#ip address 192.168.100.33 255.255.255.224
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
^Z
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R1#
```

S3:

```
S3#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
S3(config)#interface vlan 1
S3(config-if)#ip address 192.168.100.66 255.255.255.224
S3(config-if)#no shutdown
S3(config-if)#exit
S3(config)#ip default-gateway 192.168.100.65
```
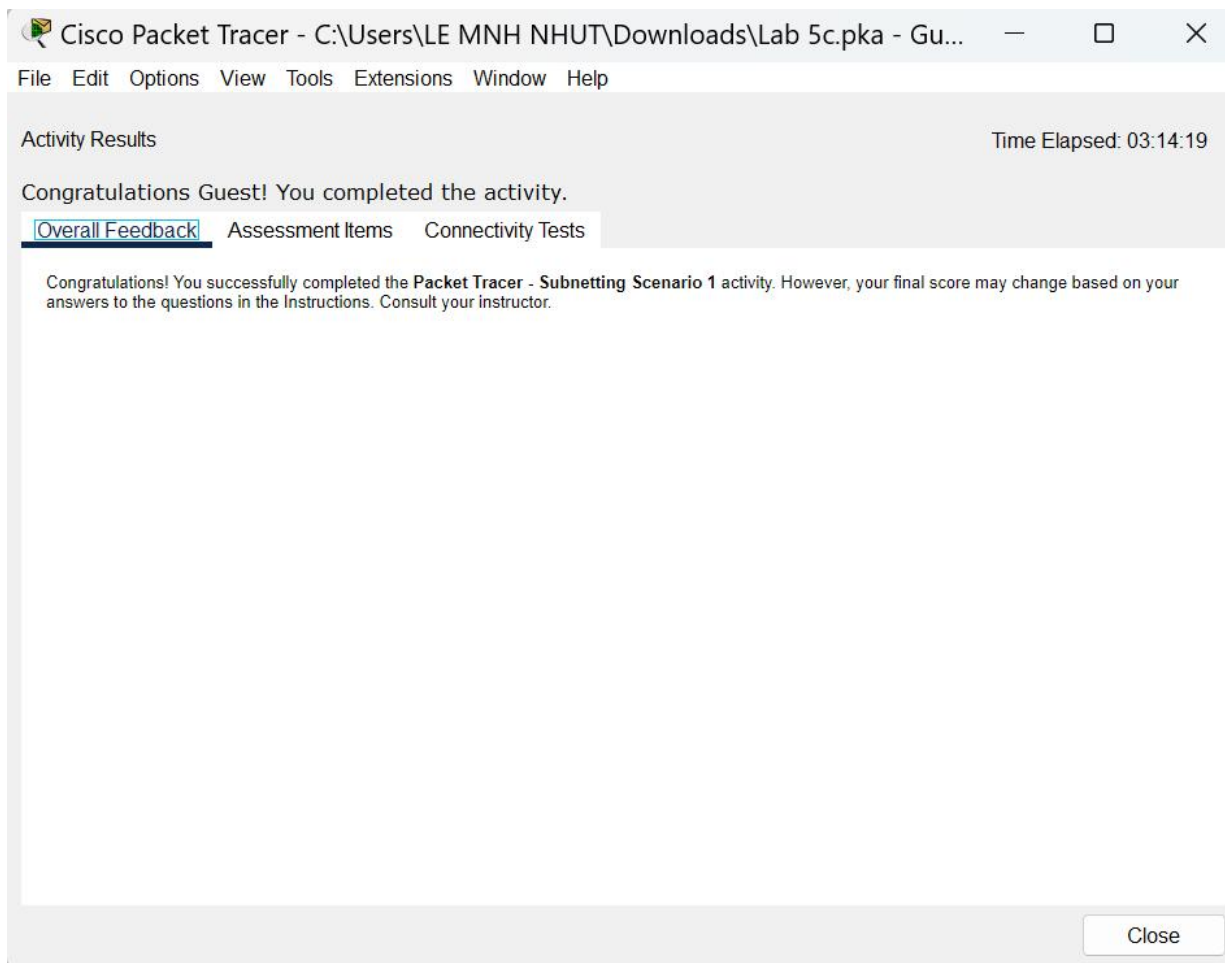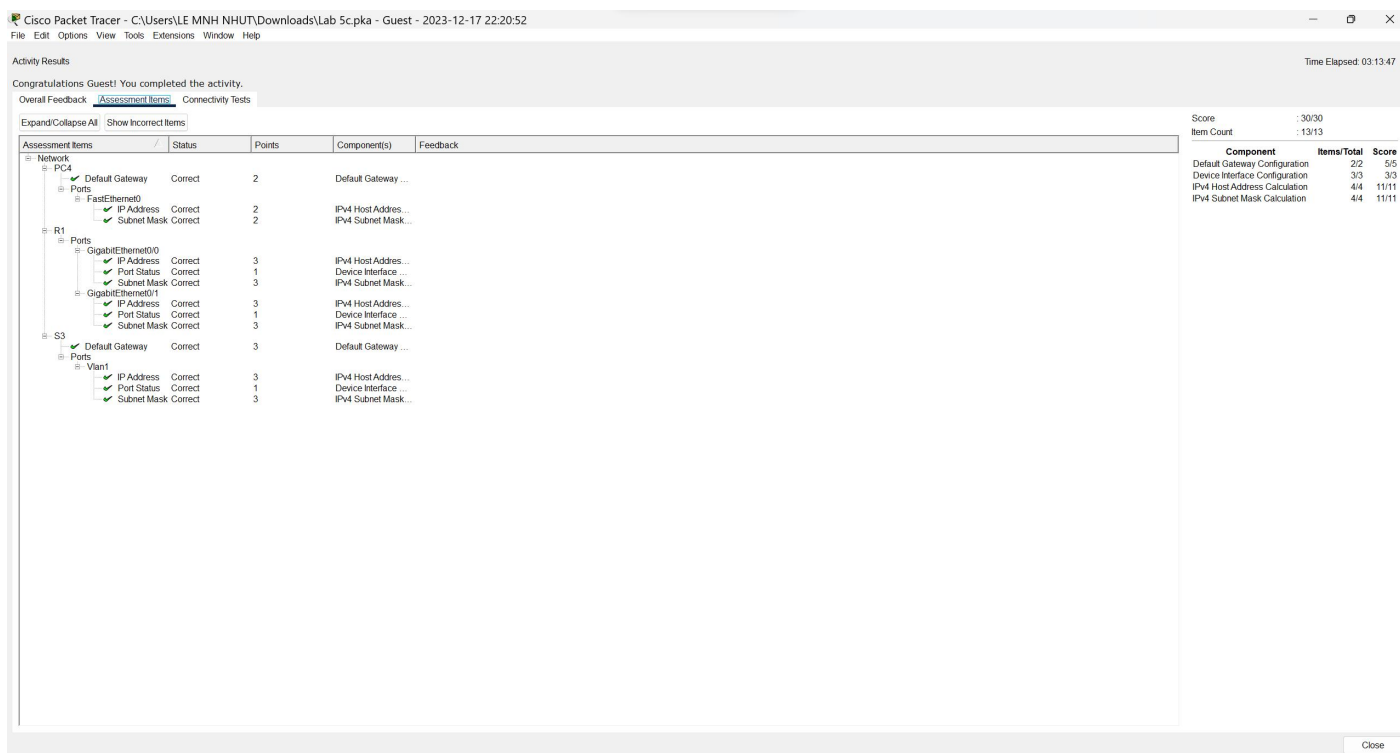
PC4:

3.3 Kiểm tra kết quả thực hành

Hình 3.3: Kết quả kiểm tra tổng quát

Hình 3.3b: Kết quả kiểm tra chi tiết