Họ và tên: Bùi Lê Nhật Tri
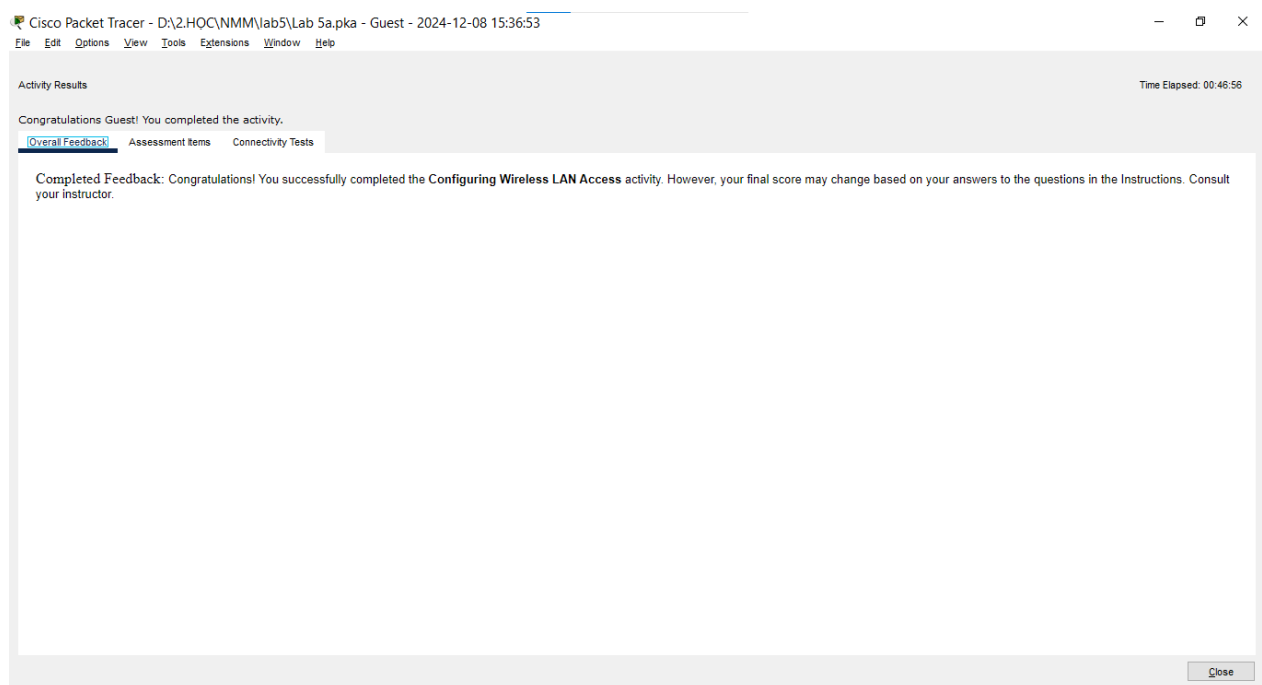
MSSV: 23521634

Lớp: IT005.P119

BÁO CÁO THỰC HÀNH LAB 5:
CẤU HÌNH THIẾT BỊ MẠNG

Task 1: Cấu hình thiết bị mạng không dây

<u>Kết quả kiểm tra:</u>

Hình 1: Kết quả tổng quát

Hình 2: Kết quả chi tiết

Task 2: Cấu hình địa chỉ IP trên router

Các cấu hình của router R1:

+ Show run:

Hình 3: Show run 1

```
!
router eigrp 1
 network 192.168.10.0
 network 192.168.11.0
 network 209.165.200.0
 auto-summary
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login
!
line aux 0
!
line vty 0 4
 login
!
!
!
end
```

Hình 4: Show run 2

+ Show ip interface brief:

```
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#
```

Hình 5: Show ip interface brief

+ Show ip route:

```
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, 00:17:25, 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, 00:25:11, 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

R1#
```

Hình 6: Show ip route

Các cấu hình của router R2:

+ Show run:

```
R2#show run                                  !
Building configuration...                    !
                                             !
Current configuration : 923 bytes           !
!                                            !
version 15.1                                 !
no service timestamps log datetime msec     spanning-tree mode pvst
no service timestamps debug datetime msec   !
service password-encryption                 !
!                                            !
hostname R2                                  !
!                                            !
!                                            !
!                                            interface GigabitEthernet0/0
!                                             ip address 10.1.1.1 255.255.255.0
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1  duplex auto
!                                             speed auto
!                                            !
!                                            interface GigabitEthernet0/1
!                                             ip address 10.1.2.1 255.255.255.0
!                                             duplex auto
!                                             speed auto
ip cef                                       !
no ipv6 cef                                  interface Serial0/0/0
!                                             ip address 209.165.200.226 255.255.255.252
!                                            !
!                                            interface Serial0/0/1
!                                             no ip address
license udi pid CISCO1941/K9 sn FTX1524E7C4   clock rate 2000000
!                                             shutdown
!                                            !
!                                            interface Vlan1
!                                             no ip address
!                                             shutdown
!                                            !
```

Hình 7: Show run 1

```
!
router eigrp 1
 network 10.0.0.0
 network 209.165.200.0
 auto-summary
!
ip classless
!
ip flow-export version 9
!
!
!
no cdp run
!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login
!
line aux 0
!
line vty 0 4
 login
!
!
!
end
```

Hình 8: Show run 2

+ Show ip interface brief:

```
R2#
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#
```

Hình 9: Show ip interface brief

+ Show ip route:

```
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, 00:28:54, 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, 00:36:40, Serial0/0/0
D     192.168.11.0/24 [90/2170112] via 209.165.200.225, 00:32:08, Serial0/0/0
      209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D        209.165.200.0/24 is a summary, 00:28:54, 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
```
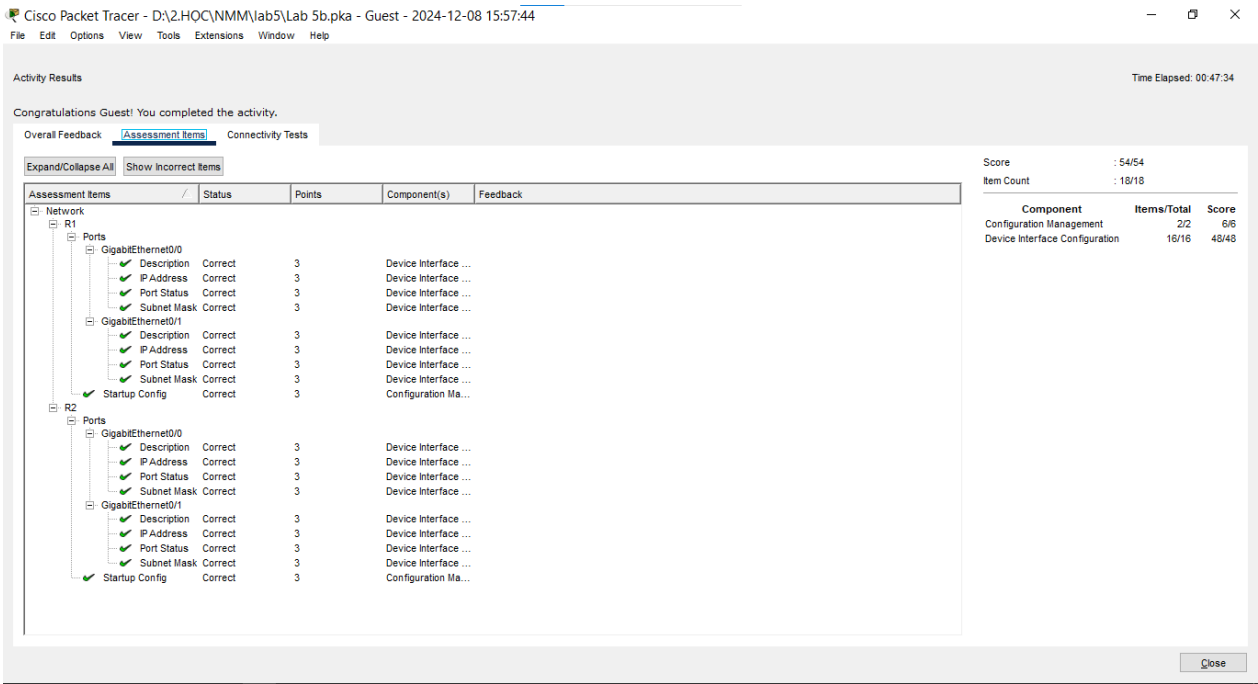
Hình 10: Show ip route

Kết quả kiểm tra:
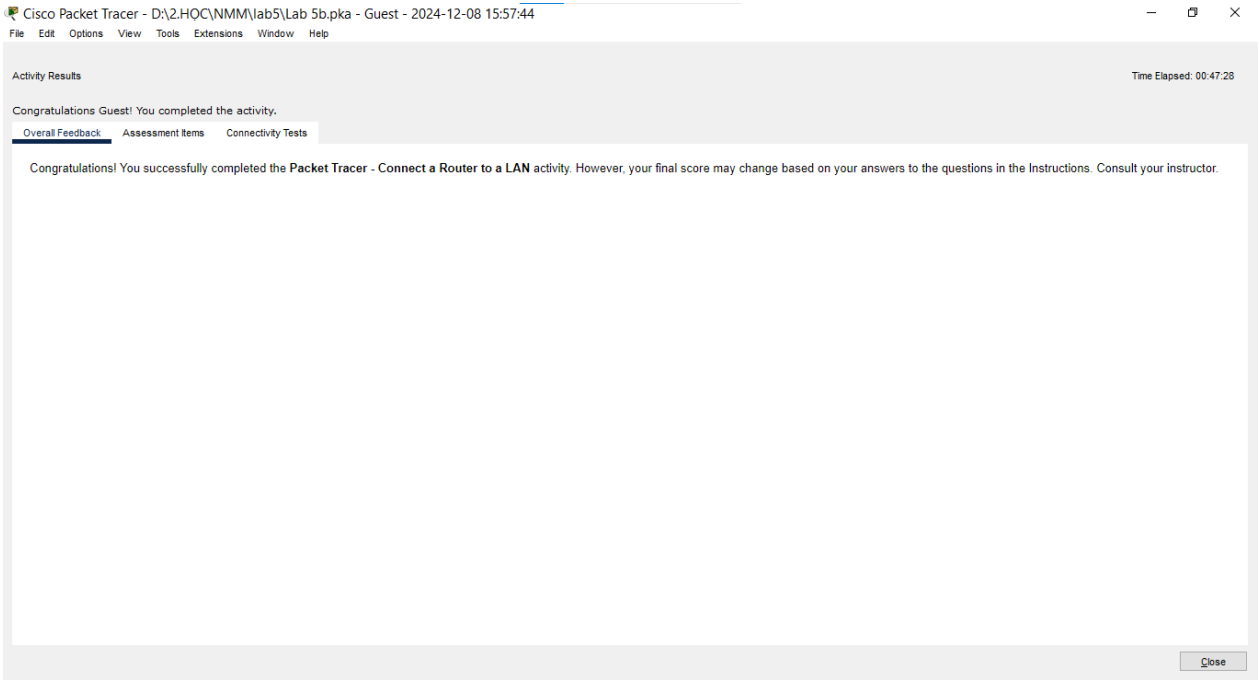
Hình 11: Kết quả tổng quát

Hình 12: Kết quả chi tiết

Task 3: Áp dụng chia địa chỉ IP

- Có 5 mạng con:
    - Kết nối giữa S1 và G0/0 của R1.
    - Kết nối giữa S2 và G0/1 của R1.
    - Kết nối giữa S3 và G0/0 của R2.
    - Kết nối giữa S4 và G0/1 của R2.
    - Kết nối giữa R1 và R2.
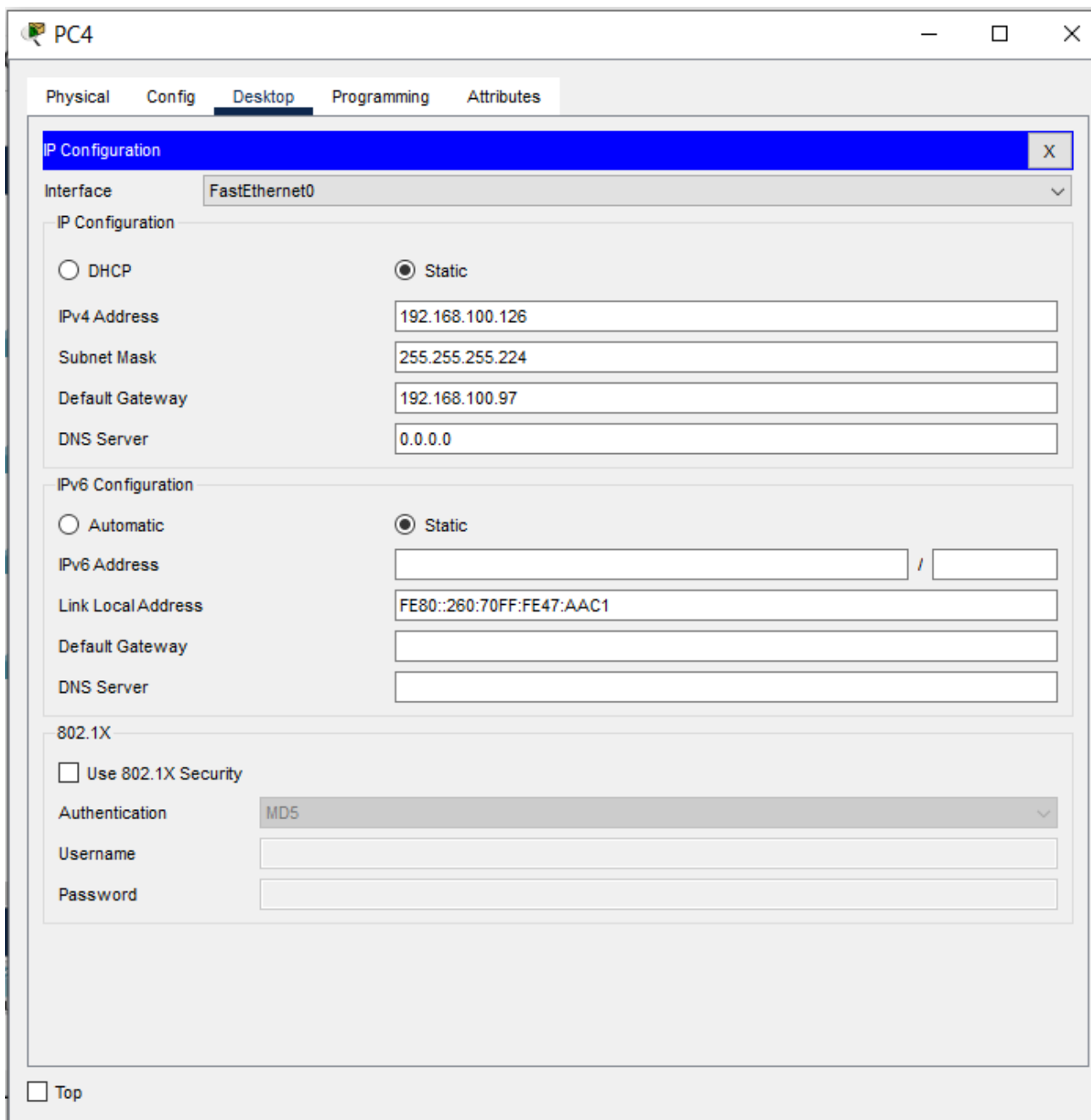- Chia mạng con từ địa chỉ 192.168.100.0/24:

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

Hình 13: Bảng địa chỉ IP sau khi chia

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	VLAN1	192.168.100.2	255.255.255.224	192.168.100.1
S2	VLAN1	192.168.100.34	255.255.255.224	192.168.100.33
S3	VLAN1	192.168.100.66	255.255.255.224	192.168.100.65
S4	VLAN1	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

Hình 14: Địa chỉ IP của các Interface

Hình 15: IP configuration của PC4

```
R1>enable
R1#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.100.1   YES manual up                    up
GigabitEthernet0/1     192.168.100.33  YES manual up                    up
Serial0/0/0            192.168.100.129 YES manual up                    up
Serial0/0/1            unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
R1#
```

Hình 16: Show ip interface brief R1

```
S3>enable
S3#Show ip interface brief
Interface            IP-Address      OK? Method Status    Protocol
FastEthernet0/1      unassigned      YES manual up        up
FastEthernet0/2      unassigned      YES manual down      down
FastEthernet0/3      unassigned      YES manual down      down
FastEthernet0/4      unassigned      YES manual down      down
FastEthernet0/5      unassigned      YES manual down      down
FastEthernet0/6      unassigned      YES manual down      down
FastEthernet0/7      unassigned      YES manual down      down
FastEthernet0/8      unassigned      YES manual down      down
FastEthernet0/9      unassigned      YES manual down      down
FastEthernet0/10     unassigned      YES manual down      down
FastEthernet0/11     unassigned      YES manual down      down
FastEthernet0/12     unassigned      YES manual down      down
FastEthernet0/13     unassigned      YES manual down      down
FastEthernet0/14     unassigned      YES manual down      down
FastEthernet0/15     unassigned      YES manual down      down
FastEthernet0/16     unassigned      YES manual down      down
FastEthernet0/17     unassigned      YES manual down      down
FastEthernet0/18     unassigned      YES manual down      down
FastEthernet0/19     unassigned      YES manual down      down
FastEthernet0/20     unassigned      YES manual down      down
FastEthernet0/21     unassigned      YES manual down      down
FastEthernet0/22     unassigned      YES manual down      down
FastEthernet0/23     unassigned      YES manual down      down
FastEthernet0/24     unassigned      YES manual down      down
GigabitEthernet0/1   unassigned      YES manual up        up
GigabitEthernet0/2   unassigned      YES manual down      down
Vlan1                192.168.100.66  YES manual up        up
```

Hình 17: Show ip interface brief S3

Kết quả kiểm tra:

Cisco Packet Tracer - D:\2.HỌC\NMM\lab5\Lab 5c.pka - Guest - 2024-12-08 17:22:58

File Edit Options View Tools Extensions Window Help

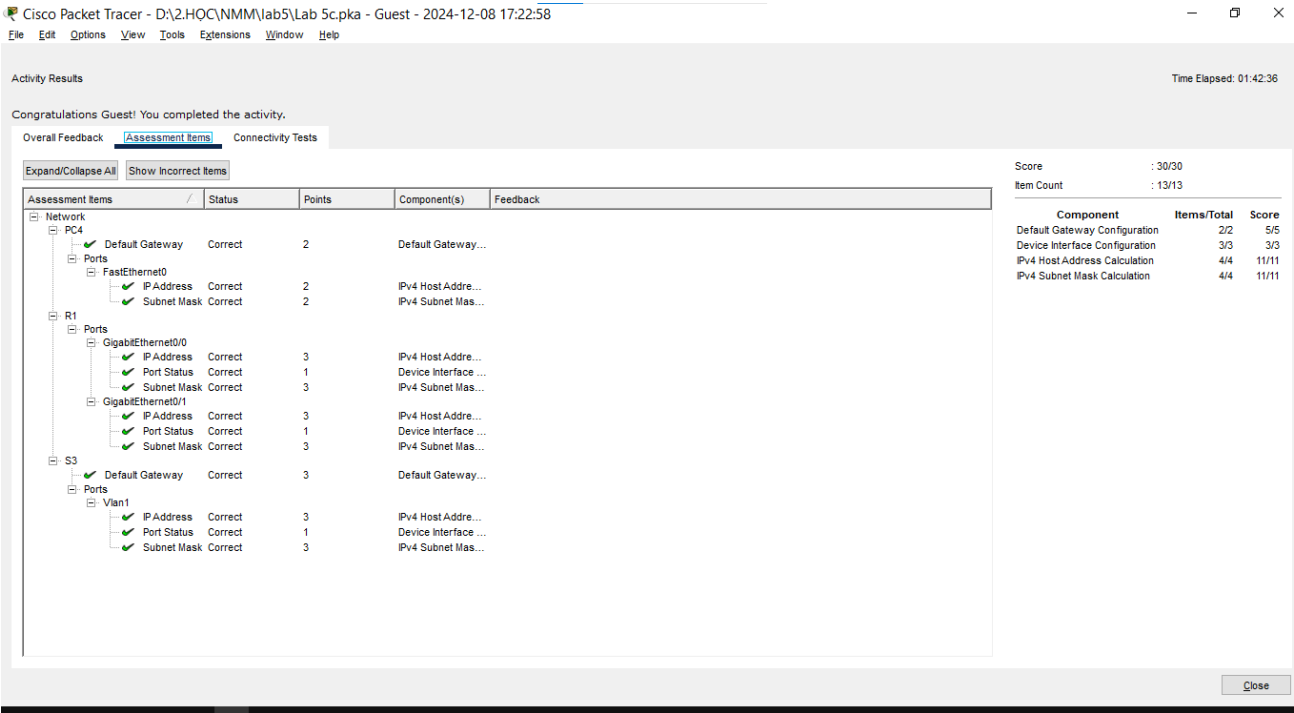**Activity Results**   Time Elapsed: 01:42:27

Congratulations Guest! You completed the activity.

[Overall Feedback] Assessment Items Connectivity Tests

Congratulations! You successfully completed the **Packet Tracer - Subnetting Scenario 1** activity. However, your final score may change based on your answers to the questions in the Instructions. Consult your instructor.

Close

Hình 18: Kết quả tổng quát

Hình 19: Kết quả chi tiết