

BÁO CÁO THỰC HÀNH

Môn học: Nhập môn Mạng Máy tính

Tên chủ đề: Cấu hình Thiết bị Mạng

GVHD: Tô Trọng Nghĩa

THÔNG TIN CHUNG:

Lớp: IT005.0119.2

| STT | Họ và tên | MSSV | Email |
|-----|-------------------|----------|--|
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1. NỘI DUNG THỰC HIỆN:¹

| STT | Nội dung | Tình trạng | Trang |
|------------------|----------------------------------|------------|---------|
| 1 | Cấu hình thiết bị mạng không dây | 100% | 2 – 3 |
| 2 | Cấu hình địa chỉ IP trên router | 100% | 3 – 14 |
| 3 | Áp dụng chia địa chỉ IP | 100% | 14 - 17 |
| Điểm tự đánh giá | | | 10/10 |

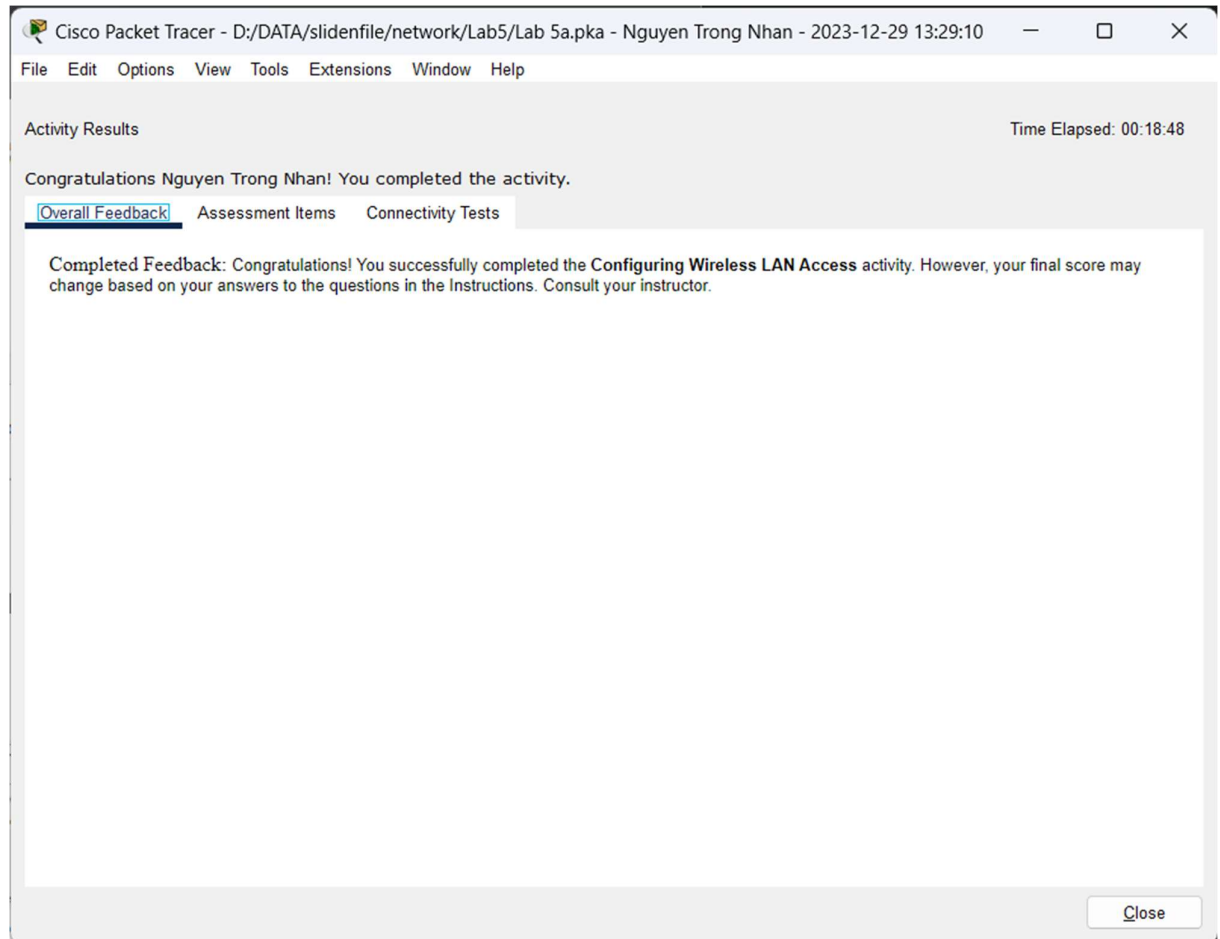
Phần bên dưới của báo cáo này là tài liệu báo cáo chi tiết của nhóm thực hiện.

¹ Ghi nội dung công việc, các kịch bản trong bài Thực hành

BÁO CÁO CHI TIẾT

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

Kết quả tổng quát:



Kết quả chi tiết:

Cisco Packet Tracer - D:/DATA/slidenfile/network/Lab5/Lab 5a.pka - Nguyen Trong Nhan - 2023-12-29 13:29:10

File Edit Options View Tools Extensions Window Help

Activity Results Time Elapsed: 00:19:29

Congratulations Nguyen Trong Nhan! You completed the activity.

Overall Feedback Assessment Items Connectivity Tests

Expand/Collapse All Show Incorrect Items

| Assessment Items | Status | Points |
|-------------------------------|---------|--------|
| Network | | |
| PC3 | | |
| Wireless | | |
| Security Mode | | |
| Authen Type | Correct | 1 |
| Pass Phrase | Correct | 4 |
| SSID | Correct | 5 |
| WRS2 | | |
| (deprecated) DHCP Server | | |
| (deprecated) DHCP Enable | Correct | 10 |
| (deprecated) Pools | | 0 |
| (deprecated) Pool linksysPool | | 0 |
| (deprecated) Default Gateway | Correct | 10 |
| Default Gateway | Correct | 10 |
| Ports | | |
| Internet | | |
| IP Address | Correct | 10 |
| Link to S1 | | |
| Connects to FastEthernet0/7 | Correct | 5 |
| Type | Correct | 5 |
| Wireless | | 0 |
| Security Mode | | |
| Authen Type | Correct | 10 |
| Pass Phrase | Correct | 10 |
| SSID | Correct | 10 |
| SSID BroadCast | Correct | 10 |

Score : 100/100

Item Count : 13/13

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

Close

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

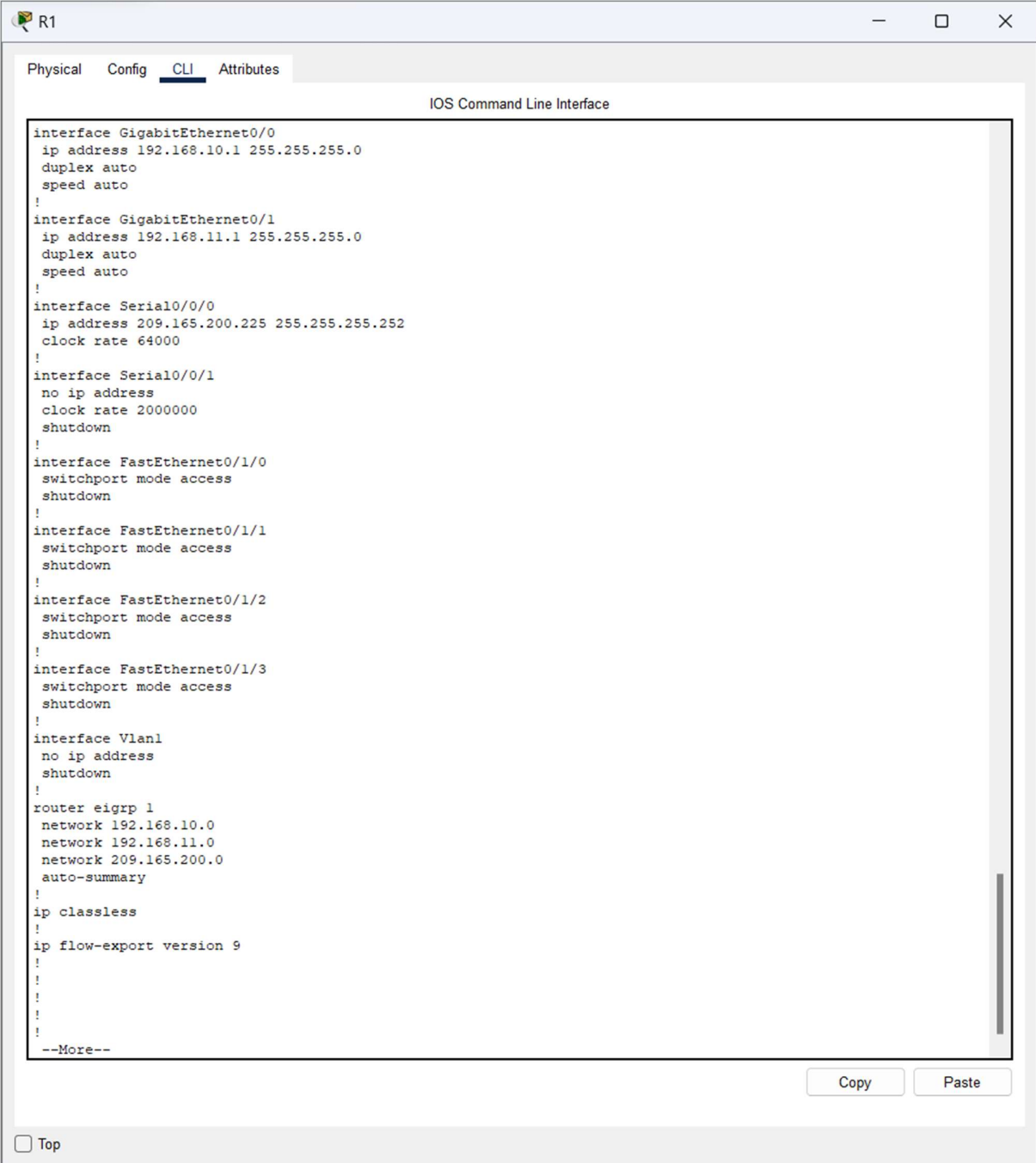
2.1 Cấu hình địa chỉ IP cho router 1

2.2 Kiểm tra cấu hình

R1:

show run:





```
interface GigabitEthernet0/0
ip address 192.168.10.1 255.255.255.0
duplex auto
speed auto
!
interface GigabitEthernet0/1
ip address 192.168.11.1 255.255.255.0
duplex auto
speed auto
!
interface Serial0/0/0
ip address 209.165.200.225 255.255.255.252
clock rate 64000
!
interface Serial0/0/1
no ip address
clock rate 2000000
shutdown
!
interface FastEthernet0/1/0
switchport mode access
shutdown
!
interface FastEthernet0/1/1
switchport mode access
shutdown
!
interface FastEthernet0/1/2
switchport mode access
shutdown
!
interface FastEthernet0/1/3
switchport mode access
shutdown
!
interface Vlan1
no ip address
shutdown
!
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
!
!
!
!
!
--More--
```

☐ Top

```
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

R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
```

☐ Top

The screenshot shows the Cisco Packet Tracer interface with Router R1 selected. The 'CLI' tab is active, displaying the following configuration commands:

```

!
!
line con 0
 password 7 0822455D0A16
 login
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

```

Below the configuration, the output of the command 'show ip interface brief' is displayed:

```

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#

```

At the bottom of the interface, there are buttons for 'Copy' and 'Paste'.

show ip route:



```

R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
R1#
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, 00:12:45, 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, 00:16:23, 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#
  
```

R2:

show run:






```
interface GigabitEthernet0/0
ip address 10.1.1.1 255.255.255.0
duplex auto
speed auto
!
interface GigabitEthernet0/1
ip address 10.1.2.1 255.255.255.0
duplex auto
speed auto
!
interface Serial0/0/0
ip address 209.165.200.226 255.255.255.252
!
interface Serial0/0/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
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

R2#
```

show ip interface brief:



```
duplex auto
speed auto
!
interface Serial0/0/0
ip address 209.165.200.226 255.255.255.252
!
interface Serial0/0/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
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

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#
```

☐ Top

show ip route:

```

R2
Physical Config CLI Attributes
IOS Command Line Interface

!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

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

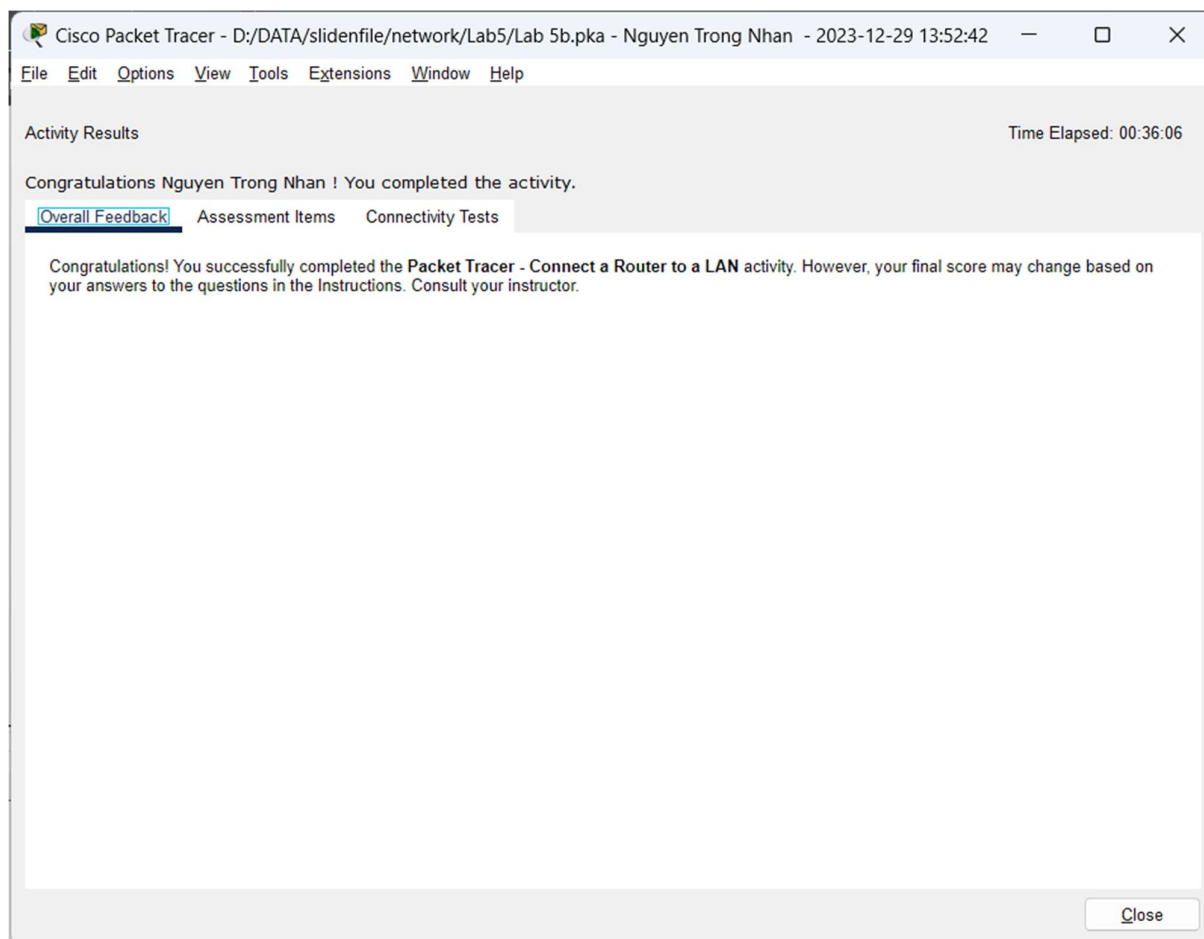
    10.0.0.0/8 is variably subnetted, 5 subnets, 3 masks
D       10.0.0.0/8 is a summary, 00:17:16, Null0
C       10.1.1.0/24 is directly connected, GigabitEthernet0/0
L       10.1.1.1/32 is directly connected, GigabitEthernet0/0
C       10.1.2.0/24 is directly connected, GigabitEthernet0/1
L       10.1.2.1/32 is directly connected, GigabitEthernet0/1
D       192.168.10.0/24 [90/2170112] via 209.165.200.225, 00:20:54, Serial0/0/0
D       192.168.11.0/24 [90/2170112] via 209.165.200.225, 00:19:13, Serial0/0/0
        209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D       209.165.200.0/24 is a summary, 00:17:16, 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

R2#
R2#
R2#
R2#

```

2.3 Kiểm tra kết quả thực hành

Kết quả tổng quát:



Kết quả chi tiết:

Cisco Packet Tracer - D:/DATA/slidenfile/network/Lab5/Lab 5b.pka - Nguyen Trong Nhan - 2023-12-29 13:52:42

File Edit Options View Tools Extensions Window Help

Activity Results Time Elapsed: 00:36:46

Congratulations Nguyen Trong Nhan ! You completed the activity.

Overall Feedback **Assessment Items** Connectivity Tests

Expand/Collapse All Show Incorrect Items

| Assessment Items | Status | Points | Component(s) |
|--------------------|---------|--------|------------------|
| Network | | | |
| R1 | | | |
| Ports | | | |
| GigabitEthernet0/0 | | | |
| ✓ Description | Correct | 3 | Device Interface |
| ✓ IP Address | Correct | 3 | Device Interface |
| ✓ Port Status | Correct | 3 | Device Interface |
| ✓ Subnet Mask | Correct | 3 | Device Interface |
| GigabitEthernet0/1 | | | |
| ✓ Description | Correct | 3 | Device Interface |
| ✓ IP Address | Correct | 3 | Device Interface |
| ✓ Port Status | Correct | 3 | Device Interface |
| ✓ Subnet Mask | Correct | 3 | Device Interface |
| ✓ Startup Config | Correct | 3 | Configuration |
| R2 | | | |
| Ports | | | |
| GigabitEthernet0/0 | | | |
| ✓ Description | Correct | 3 | Device Interface |
| ✓ IP Address | Correct | 3 | Device Interface |
| ✓ Port Status | Correct | 3 | Device Interface |
| ✓ Subnet Mask | Correct | 3 | Device Interface |
| GigabitEthernet0/1 | | | |
| ✓ Description | Correct | 3 | Device Interface |
| ✓ IP Address | Correct | 3 | Device Interface |
| ✓ Port Status | Correct | 3 | Device Interface |
| ✓ Subnet Mask | Correct | 3 | Device Interface |
| ✓ Startup Config | Correct | 3 | Configuration |

Score : 54/54

Item Count : 18/18

| Component | Items/Total | Score |
|--------------------------------|-------------|-------|
| Configuration Management | 2/2 | 6/6 |
| Device Interface Configuration | 16/16 | 48/48 |

Close

3. Task 3: Áp dụng chia 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 |
|---|-----------------|-----------------|-----------------|-----------------|

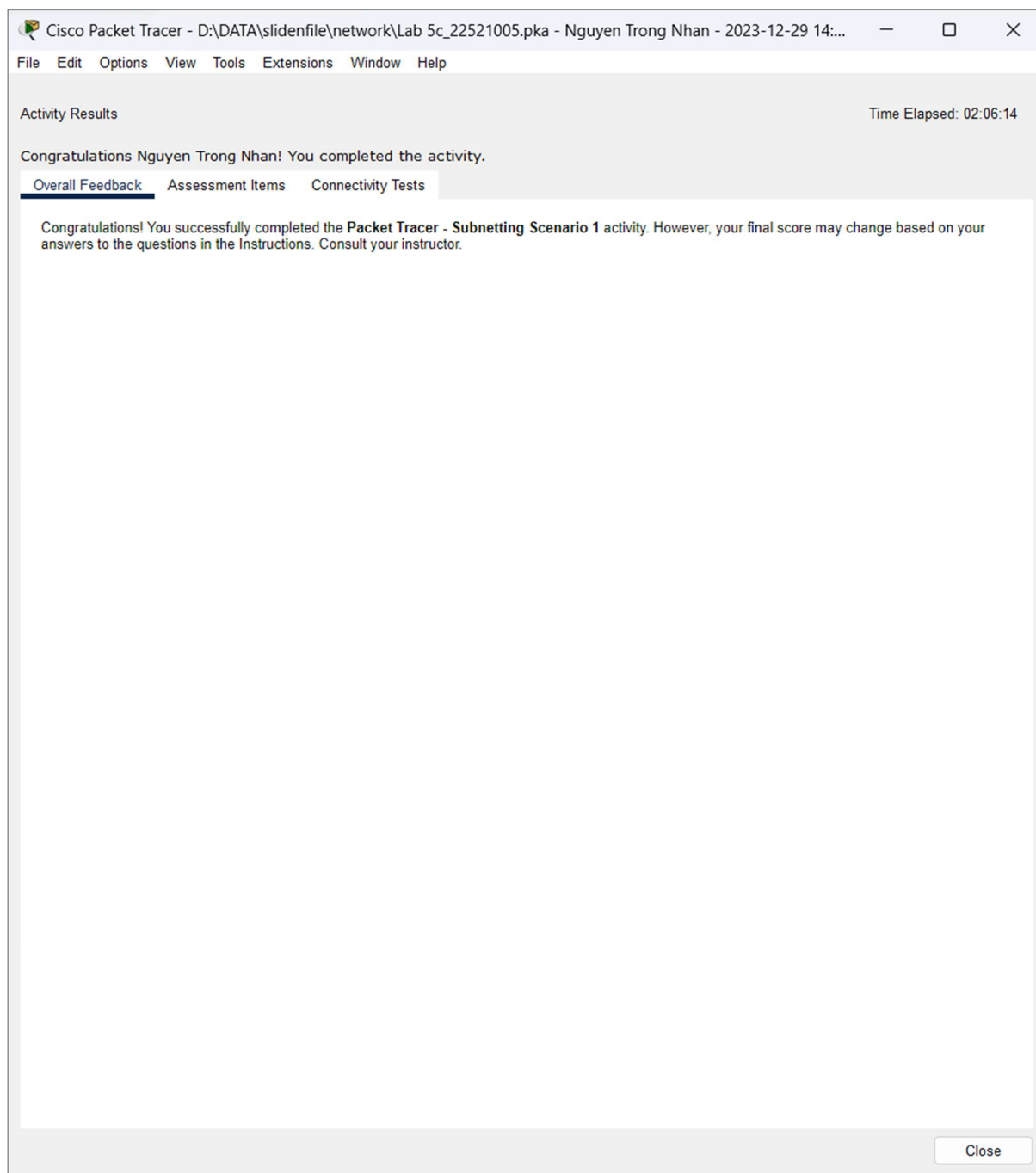
Bảng địa chỉ:

| Device | Interface | IP address | Subnet mask | Default gateway |
|--------|-----------|-----------------|-----------------|-----------------|
| R1 | G0/0 | 192.168.100.1 | 255.255.255.224 | Na |
| | G0/1 | 192.168.100.33 | 255.255.255.224 | Na |
| | S0/0/0 | 192.168.100.129 | 255.255.255.224 | Na |
| R2 | G0/0 | 192.168.100.65 | 255.255.255.224 | Na |
| | G0/1 | 192.168.100.97 | 255.255.255.224 | Na |
| | S0/0/0 | 192.168.100.158 | 255.255.255.224 | Na |
| 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 |

3.2 Cấu hình thiết bị

3.3 Kiểm tra kết quả thực hành

Kết quả tổng quát:



Kết quả chi tiết:

Cisco Packet Tracer - D:\DATA\slidenfile\network\Lab 5c_22521005.pka - Nguyen Trong Nhan - 2023-12-29 14:...

File Edit Options View Tools Extensions Window Help

Activity Results Time Elapsed: 02:06:41

Congratulations Nguyen Trong Nhan! You completed the activity.

Overall Feedback **Assessment Items** Connectivity Tests

Expand/Collapse All Show Incorrect Items

| Assessment Items | Status | Points | Component(s) |
|--------------------|---------|--------|-----------------|
| Network | | | |
| PC4 | | | |
| ✓ Default Gateway | Correct | 2 | Default Gatew: |
| Ports | | | |
| FastEthernet0 | | | |
| ✓ IP Address | Correct | 2 | IPv4 Host Addi |
| ✓ Subnet Mask | Correct | 2 | IPv4 Subnet M |
| R1 | | | |
| Ports | | | |
| GigabitEthernet0/0 | | | |
| ✓ IP Address | Correct | 3 | IPv4 Host Addi |
| ✓ Port Status | Correct | 1 | Device Interfac |
| ✓ Subnet Mask | Correct | 3 | IPv4 Subnet M |
| GigabitEthernet0/1 | | | |
| ✓ IP Address | Correct | 3 | IPv4 Host Addi |
| ✓ Port Status | Correct | 1 | Device Interfac |
| ✓ Subnet Mask | Correct | 3 | IPv4 Subnet M |
| S3 | | | |
| ✓ Default Gateway | Correct | 3 | Default Gatew: |
| Ports | | | |
| Vlan1 | | | |
| ✓ IP Address | Correct | 3 | IPv4 Host Addi |
| ✓ Port Status | Correct | 1 | Device Interfac |
| ✓ Subnet Mask | Correct | 3 | IPv4 Subnet M |

Score : 30/30

Item Count : 13/13

| Component | Items/Total | Score |
|--------------------------------|-------------|-------|
| Default Gateway Configuration | 2/2 | 5/5 |
| Device Interface Configuration | 3/3 | 3/3 |
| IPv4 Host Address Calculation | 4/4 | 11/11 |
| IPv4 Subnet Mask Calculation | 4/4 | 11/11 |

Close