1. Configure R1 and R2 Router IDs using the interface IP addresses from the link that is shared between them.
2. Configure the R2 links with a max value facing R1 and R3. R2 must become the DR. R1 and R3 links facing R2 must remain with the default OSPF configuration for DR election. Verify the configuration after clearing the OSPF process.
3. Using a host wildcard mask, configure all three routers to advertise their respective Loopback1 networks.
4. Configure the link between R1 and R3 to disable their ability to add other OSPF routers.

Answer:

```
on R1
conf terminal
interface Loopback0
ip address 10.10.1.1 255.255.255.255
!
interface Loopback1
ip address 192.168.1.1 255.255.255.0
!
interface Ethernet0/0
no shut
ip address 10.10.12.1 255.255.255.0
ip ospf 1 area 0
duplex auto
!
interface Ethernet0/1
no shut
ip address 10.10.13.1 255.255.255.0
ip ospf 1 area 0
duplex auto
!
router ospf 1
router-id 10.10.12.1
network 10.10.1.1 0.0.0.0 area 0
network 192.168.1.0 0.0.0.255 area 0
!
copy run star
```

```
On R2
conf terminal
interface Loopback0
ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
ip address 192.168.2.2 255.255.255.0
!
interface Ethernet0/0
no shut
ip address 10.10.12.2 255.255.255.0
ip ospf priority 255
ip ospf 1 area 0
duplex auto
!
interface Ethernet0/2
```

```
no shut
ip address 10.10.23.2 255.255.255.0
ip ospf priority 255
ip ospf 1 area 0
duplex auto
!
router ospf 1
network 10.10.2.2 0.0.0.0 area 0
network 192.168.2.0 0.0.0.255 area 0
!
copy runs start
```

```
On R3
conf ter
interface Loopback0
ip address 10.10.3.3 255.255.255.255
!
interface Loopback1
ip address 192.168.3.3 255.255.255.0
!
interface Ethernet0/1
no shut
ip address 10.10.13.3 255.255.255.0
ip ospf 1 area 0
duplex auto
!
interface Ethernet0/2
no shut
ip address 10.10.23.3 255.255.255.0
ip ospf 1 area 0
duplex auto
!
router ospf 1
network 10.10.3.3 0.0.0.0 area 0
network 192.168.3.0 0.0.0.255 area 0
!
copy run start
!
```

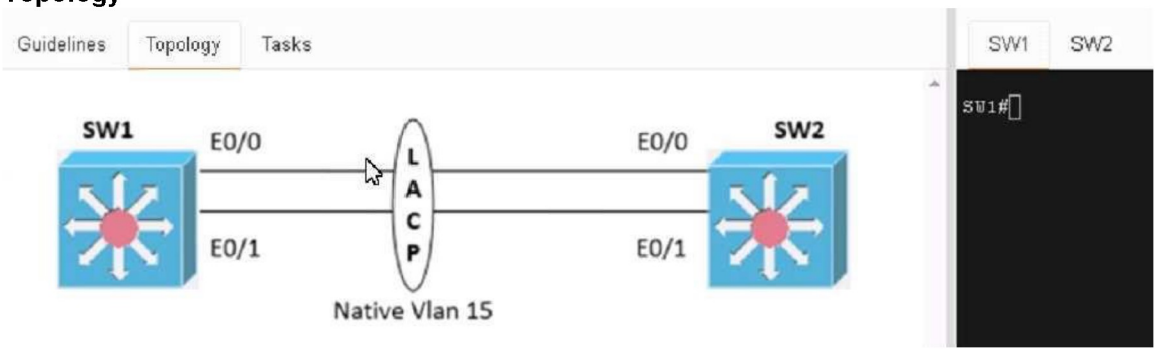
QUESTION 684
Lab Simulation 2

Guidelines
This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.

- When Next is clicked, the lab closes and cannot be reopened.

Topology



Tasks
Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured:

1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SW2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends.
2 Configure the EtherChannel as a trunk link.
3. Configure the trunk link with 802.1q tags.
4. Configure the native VLAN of the EtherChannel as VLAN 15.

Answer:

On SW1:
conf terminal
vlan 15
exit
interface range eth0/0 - 1
channel-group 1 mode active
exit
interface port-channel 1
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk native vlan 15
end
copy run start

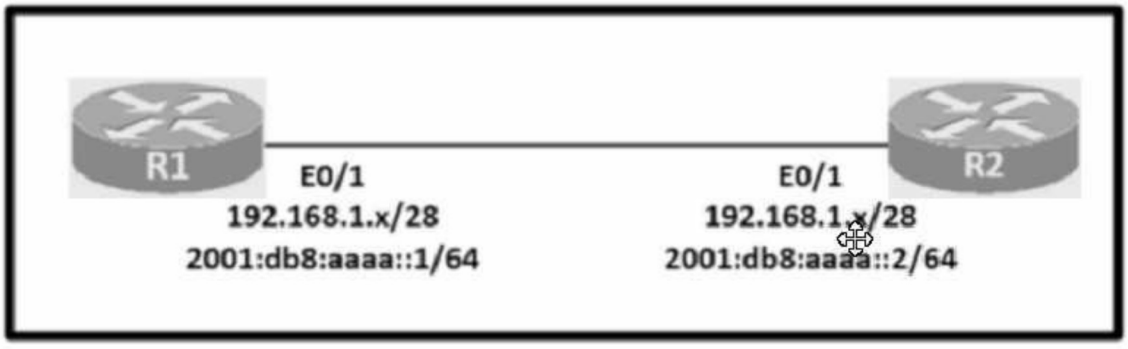
on SW2:
conf terminal
vlan 15
exit
interface range eth0/0 - 1
channel-group 1 mode active
exit
interface port-channel 1
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk native vlan 15
end
copy run start

QUESTION 685
Lab Simulation 3

Guidelines
This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.
- When Next is clicked, the lab closes and cannot be reopened.

Topology



Tasks
Configure IPv4 and IPv6 connectivity between two routers. For IPv4, use a /28 network from the 192.168.1.0/24 private range. For IPv6, use the first /64 subnet from the 2001:0db8:aaaa::/48 subnet.
1. Using Ethernet0/1 on routers R1 and R2, configure the next usable/28 from the 192.168.1.0/24 range. The network 192.168.1.0/28 is unavailable.
2. For the IPv4 /28 subnet, router R1 must be configured with the first usable host address.
3. For the IPv4 /28 subnet, router R2 must be configured with the last usable host address.
4. For the IPv6 /64 subnet, configure the routers with the IP addressing provided from the topology.
5. A ping must work between the routers on the IPv4 and IPv6 address ranges.

Answer:

on R1
config terminal
ipv6 unicast-routing
inter eth0/1
ip addre 192.168.1.1 255.255.255.240
ipv6 addre 2001:db8:aaaa::1/64
not shut
end
copy running start

on R2
config terminal
ipv6 unicast-routing
inter eth0/1
ip address 192.168.1.14 255.255.255.240
ipv6 address 2001:db8:aaaa::2/64
not shut
end
copy running start
---
for test from R1
ping ipv6 2001:db8:aaaa::1

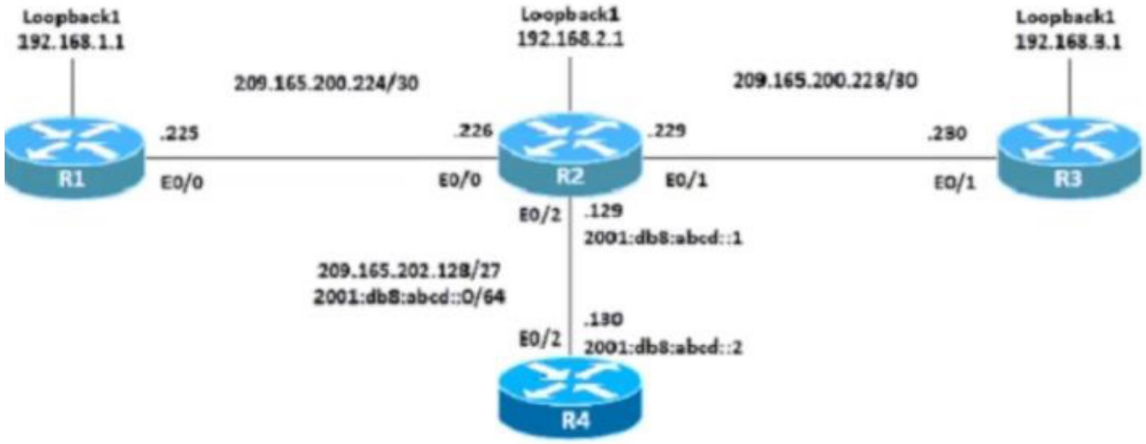
for test from R2
ping ipv6 2001:db8:aaaa::2

QUESTION 686
Lab Simulation 4

Guidelines
This is a lab item in which tasks will be performed on virtual devices

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window
- All necessary preconfigurations have been applied
- Do not change the enable password or hostname for any device
- Save your configurations to NVRAM before moving to the next item
- Click Next at the bottom of the screen to submit this lab and move to the next question
- When Next is clicked, the lab closes and cannot be reopened

Topology



Tasks
Connectivity between four routers has been established. IP connectivity must be configured in the order presented to complete the implementation. No dynamic routing protocols are included.

1. Configure static routing using host routes to establish connectivity from router R3 to the router R1 Loopback address using the source IP of 209.165.200.230.

2. Configure an IPv4 default route on router R2 destined for router R4.
3. Configure an IPv6 default router on router R2 destined for router R4.

Answer:

1. on R3
config terminal
ip route 192.168.1.1 255.255.255.255 209.165.200.229
end
copy running start

2. on R2
config terminal
ip route 0.0.0.0 0.0.0.0 209.165.202.130
end
copy running start

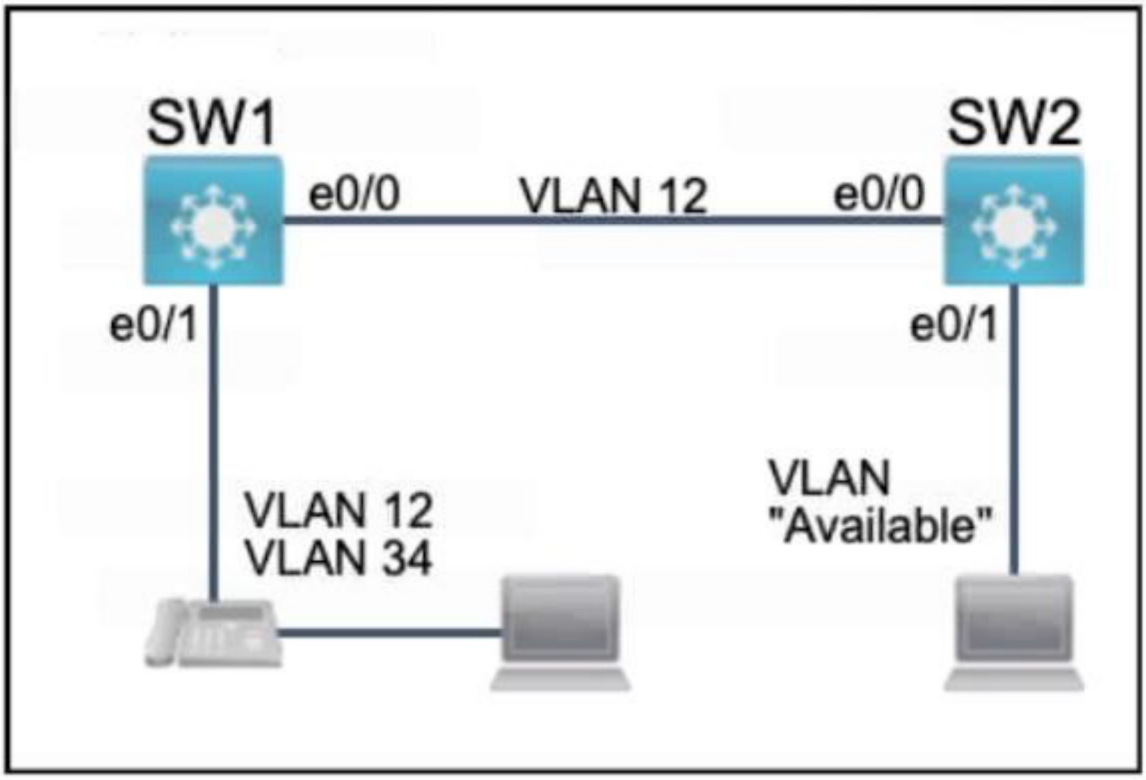
3. on R2
config terminal
ipv6 route ::/0 2001:db8:abcd::2
end
copy running start

QUESTION 687
Lab Simulation 5

Guidelines
This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.
- When Next is clicked, the lab closes and cannot be reopened.

Topology



Tasks
All physical cabling between the two switches is installed. Configure the network connectivity between the switches using the designated VLANs and interfaces.
1. Configure VLAN 100 named Compute and VLAN 200 named Telephony where required for each task.
2. Configure Ethernet0/1 on SW2 to use the existing VLAN named Available.
3. Configure the connection between the switches using access ports.
4. Configure Ethernet0/1 on SW1 using data and voice VLANs.
5. Configure Ethemet0/1 on SW2 so that the Cisco proprietary neighbor discovery protocol is turned off for the designated interface only.

Answer:

on sw1
enable
conf t
vlan 100
name Compute
vlan 200
name Telephony
int e0/1
switchport voice vlan 200
switchport access vlan 100
int e0/0
switchport mode access
do wr

on sw2
Vlan 99

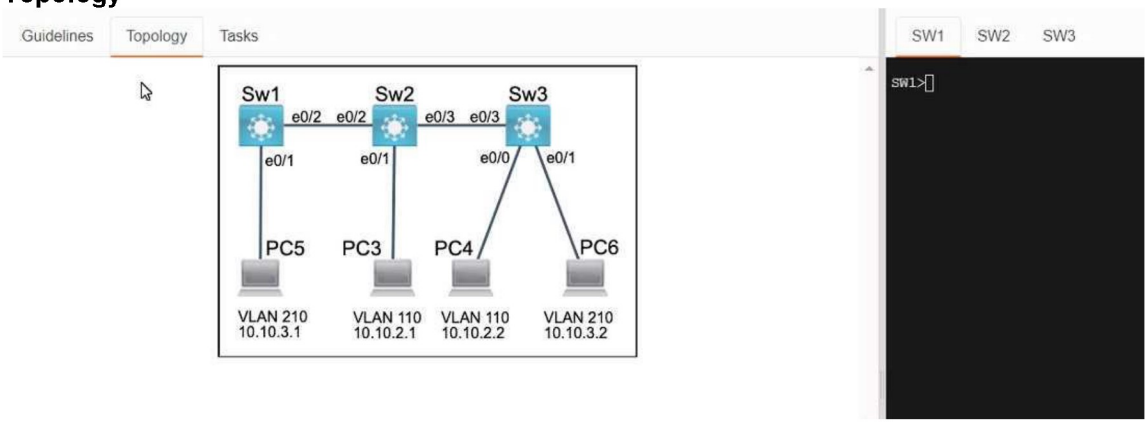
Name Available
Int e0/1
Switchport access vlan 99
do wr

QUESTION 688
Lab Simulation 6

Guidelines
This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.
- When Next is clicked, the lab closes and cannot be reopened.

Topology



Task
Three switches must be configured for Layer 2 connectivity. The company requires only the designated VLANs to be configured on their respective switches and permitted accross any links between switches for security purposes. Do not modify or delete VTP configurations.
The network needs two user-defined VLANs configured:

VLAN 110: MARKETING
VLAN 210: FINANCE

1. Configure the VLANs on the designated switches and assign them as access ports to the interfaces connected to the PCs.
2. Configure the e0/2 interfaces on Sw1 and Sw2 as 802.1q trunks with only the required VLANs permitted.
3. Configure the e0/3 interfaces on Sw2 and Sw3 as 802.1q trunks with only the required VLANs permitted.

Answer:

Sw1
enbale
config t
Vlan 210
Name FINANCE
Inter e0/1
Switchport access vlan 210
do wr

Sw2
Enable
config t
Vlan 110
Name MARKITING
Int e0/1
Switchport acees vlan 110
do wr

Sw3
Enable
config t
Vlan 110
Name MARKITING
Vlan 210
Name FINANCE
Int e0/0
Switchport access vlan 110
Int e0/1
Switchport access vlan 210

Sw1
Int e0/1
Switchport allowed vlan 210

Sw2
Int e0/2
Switchport trunk allowed vlan 210

Sw3
Int e0/3
Switchport trunk allowed vlan 210
Switchport trunk allowed vlan 210,110

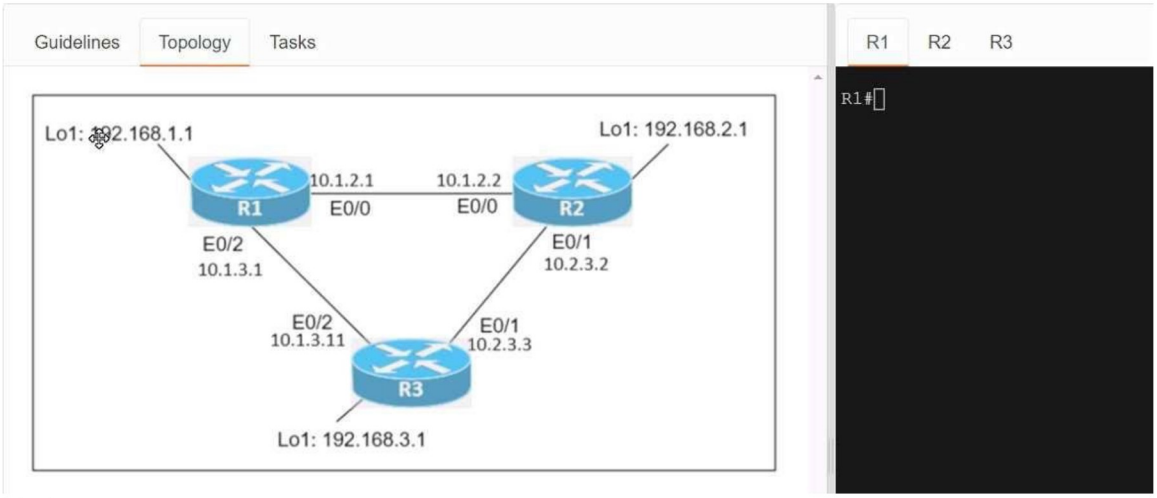
QUESTION 689
Lab Simulation 7

Guidelines
This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.

- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.
- When Next is clicked, the lab closes and cannot be reopened.

Topology



Tasks

Connectivity between three routers has been established, and IP services must be configured jn the order presented to complete the implementation Tasks assigned include configuration of NAT, NTP, DHCP, and SSH services.

1. All traffic sent from R3 to the R1 Loopback address must be configured for NAT on R2. All source addresses must be translated from R3 to the IP address of Ethernet0/0 on R2, while using only a standard access list named NAT To verify, a ping must be successful to the R1 Loopback address sourced from R3. Do not use NVI NAT configuration.
2. Configure R1 as an NTP server and R2 as a client, not as a peer, using the IP address of the R1 Ethernet0/2 interface. Set the clock on the NTP server for midnight on January 1, 2019.
3. Configure R1 as a DHCP server for the network 10.1.3.0/24 in a pool named TEST. Using a single command, exclude addresses 1-10 from the range. Interface Ethernet0/2 on R3 must be issued the IP address of 10.1.3.11 via DHCP.
4. Configure SSH connectivity from R1 to R3, while excluding access via other remote connection protocols. Access for user root and password Cisco must be set on router R3 using RSA and 1024 bits. Verify connectivity using an SSH session from router R1 using a destination address of 10.1.3.11. Do NOT modify console access or line numbers to accomplish this task.

Answer:

conf t
R1(config)#ntp master 1
R2(config)#ntp server 10.1.2.1
Exit
Router#clock set 00:00:00 jan 1 2019
ip dhcp pool TEST
network 10.1.3.0 255.255.255.0
ip dhcp exluded-address 10.1.3.1 10.1.3.10
R3(config)#int e0/3
R3(config)#int e0/2
ip address dhcp
no shut

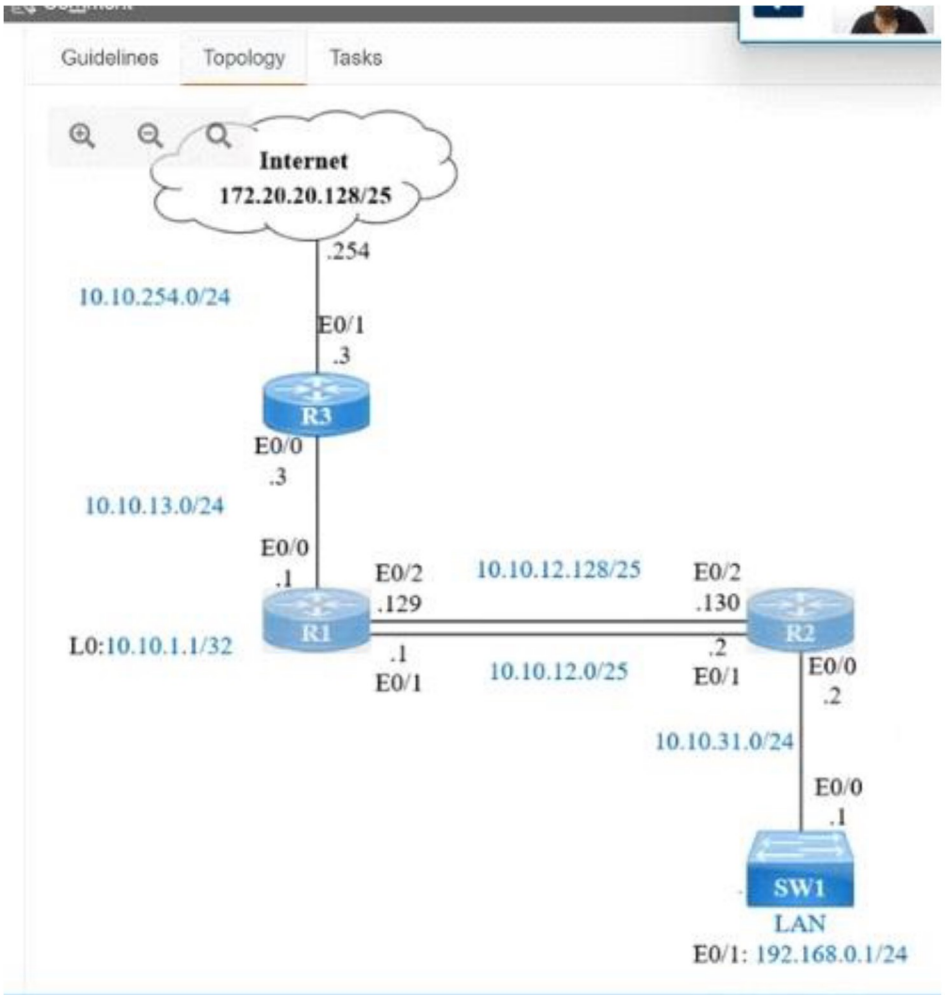
crypto key generate RSA
Copy run start

QUESTION 690
Lab Simulation 8

Guidelines
This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.
- When Next is clicked, the lab closes and cannot be reopened.

Topology



Tasks