Pergunta **7**

Por responder

Nota: 2,50

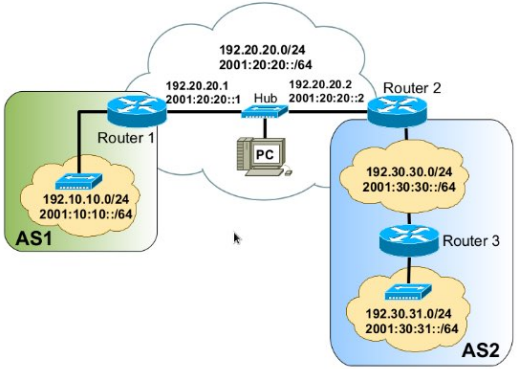
Marcar pergunta

Any iBGP neighborhood relationship established between physical interfaces will be maintained if the IGP can provide at least one available path between the BGP peers.

Selecione uma opção:

- (●) Verdadeiro
- ( ) Falso

Consider the network of the following figure, where the BGP protocol was configured on networks 192.20.20.0/24 and 2001:20:20::/64. Inside the autonomous systems, the routing protocol is OSPF. Also consider that Router 2 announces an OSPF default route and performs redistribution of OSPF routes into the BGP protocol.



The IPv4 routing table of Router 2 is the following. Which of the following sentences are true?

C 192.20.20.0/24 is directly connected, Fastethernet0/0

C 192.30.30.0/24 is directly connected, Fastethernet0/1

O 192.30.31.0/24 [110/2] via 192.30.30.3, Fastethernet0/1

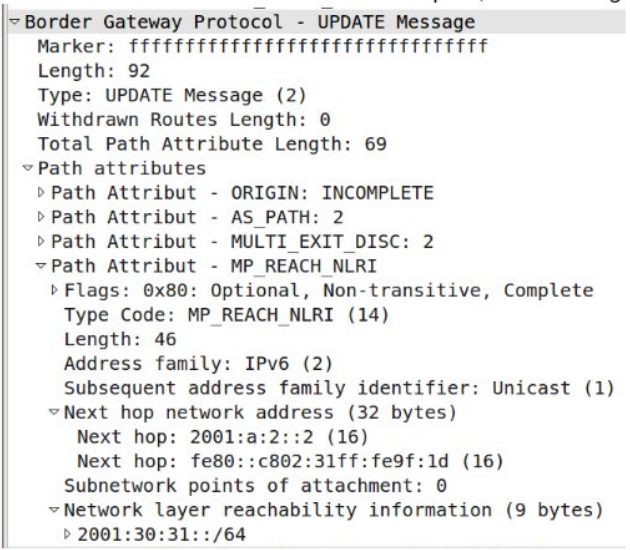
B 192.10.10.0/24 [20/0] via 192.20.20.1

B 192.30.30.0/23 [200/0] via 0.0.0.0, Null0

Selecione uma ou mais opções de resposta:

- [x] a. The routing table of Router 3 will include an entry corresponding to network 192.10.10.0/24 of Autonomous System 1.
- [ ] b. Router 2 established a BGP neighbourhood relationship only with Router 1.
- [ ] c. The routing table of Router 1 will include entries for networks 192.30.30.0/24 and 192.30.31.0/24, belonging to Autonomous System 2.
- [x] d. The routing table of Router 3 will include a default route.
- [x] e. We can say that Router 2 is summarizing the IP networks of Autonomous System 2.

An ASBR received from an external BGP peer, the following message:



Based only on this information, is possible to state that:

Selecione uma opção de resposta:

- a. Network 2001:30:31::/64 is on AS 2, and the router with address 2001:a:2::2 is on AS 2.
- b. Network 2001:30:31::/64 is on AS 2, and the router with address 2001:a:2::2 is not on AS 2.
- c. Network 2001:30:31::/64 is not on AS 2, and the router with address 2001:a:2::2 is on AS 2.
- d. Network 2001:30:31::/64 is not on AS 2, and the router with address 2001:a:2::2 is not on AS 2.

Pro	Inside global	Inside local	Outside local	Outside global
icmp	195.66.62.6:33924	10.78.25.1:33924	209.40.72.45:33924	209.40.72.45:33924
udp	195.66.62.1:33787	10.78.25.6:33787	217.23.42.44:20	217.23.42.44:20
udp	195.66.62.5:17670	10.78.25.3:17670	220.59.32.42:20	220.59.32.42:20
udp	195.66.62.5:20728	10.78.25.7:20728	215.78.88.41:80	215.78.88.41:80
udp	195.66.62.6:16734	10.78.25.9:16734	216.92.79.43:80	216.92.79.43:80
udp	195.66.62.9:35299	10.78.25.4:35299	206.56.18.41:80	206.56.18.41:80

Considering a router that connects a corporate network to the Internet, and the above router's NAT translations table where all entries are dynamic, answer True or False to the following sentences:

The Port Address Translation (PAT) mechanism is active. True ⇕ True

True, pois na parte inside global temos 2 ip's

Six (6) hosts with private IPv4 addresses are accessing the Internet. True ⇕ True

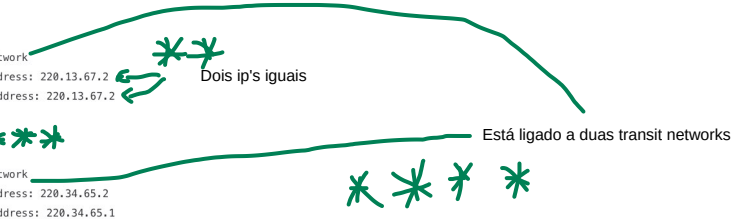
The Internet host will receive the packets from the host with the IPv4 private address 10.78.25.9 with source address 195.66.62.6. False ⇕ False

There are six (6) active UDP connections to the Internet. False ⇕ False

Pergunta 4
Por responder
Nota: 2,50
Marcar pergunta

Consider a network where all routers have OSPF properly configured and all of the Router Link-state entries of the OSPF database for one router are:

```
Router Link States (Area 0)

   LS age: 1486
   Options: (No TOS-capability, DC)
   LS Type: Router Links
   Link State ID: 5.5.5.5
   Advertising Router: 5.5.5.5
   LS Seq Number: 80000003
   Checksum: 0x24F0
   Length: 60
   Area Border Router
   Number of Links: 3

    Link connected to: a Transit Network
     (Link ID) Designated Router address: 220.13.67.2
     (Link Data) Router Interface address: 220.13.67.2
     Number of TOS metrics: 0
     TOS 0 Metrics: 8

    Link connected to: a Transit Network
     (Link ID) Designated Router address: 220.34.65.2
     (Link Data) Router Interface address: 220.34.65.1
     Number of TOS metrics: 0
     TOS 0 Metrics: 7

    Link connected to: a Stub Network
     (Link ID) Network/subnet number: 220.7.63.2
     (Link Data) Network Mask: 255.255.255.252
     Number of TOS metrics: 0
     TOS 0 Metrics: 7

Router Link States (Area 3)

   LS age: 1217
   Options: (No TOS-capability, DC)
   LS Type: Router Links
   Link State ID: 5.5.5.5
   Advertising Router: 5.5.5.5
   LS Seq Number: 80000007
   Checksum: 0x35C4
   Length: 48
   Area Border Router
   Number of Links: 2

    Link connected to: a Transit Network
     (Link ID) Designated Router address: 220.15.64.1
     (Link Data) Router Interface address: 220.15.64.1
     Number of TOS metrics: 0
     TOS 0 Metrics: 7

    Link connected to: a Stub Network
```



```
Router Link States (Area 3)

   LS age: 1217
   Options: (No TOS-capability, DC)
   LS Type: Router Links
   Link State ID: 5.5.5.5
   Advertising Router: 5.5.5.5
   LS Seq Number: 80000007
   Checksum: 0x35C4
   Length: 48
   Area Border Router
   Number of Links: 2

    Link connected to: a Transit Network
     (Link ID) Designated Router address: 220.15.64.1
     (Link Data) Router Interface address: 220.15.64.1
     Number of TOS metrics: 0
     TOS 0 Metrics: 7

     Link connected to: a Stub Network
     (Link ID) Network/subnet number: 220.30.62.2
     (Link Data) Network Mask: 255.255.255.252
     Number of TOS metrics: 0
     TOS 0 Metrics: 4
```

The Router with OSPF ID 5.5.5.5 has one interface, connected to network with ID 220.30.62.2, with an OSPF cost of 4. True

The Router with OSPF ID 5.5.5.5 is not the Designated Router of the network with ID 220.13.67.2. True

The Router with OSPF ID 5.5.5.5 has one interface, connected to network with ID 220.13.67.2, with an OSPF cost of 15. False

The Router with OSPF ID 5.5.5.5 is an internal backbone router with three interfaces connected to networks from Area 0. True

Grading: right answer: 25%, wrong answer: -12%, no answer: 0%

Pro	Inside global	Inside local	Outside local	Outside global
icmp	194.99.20.1:12823	192.168.56.9:12823	211.58.57.44:12823	211.58.57.44:12823
icmp	194.99.20.7:30548	192.168.56.4:30548	220.98.31.43:30548	220.98.31.43:30548
icmp	194.99.20.9:25421	192.168.56.2:25421	213.65.82.41:25421	213.65.82.41:25421
tcp	194.99.20.4:26683	192.168.56.1:26683	209.41.76.44:80	209.41.76.44:80
tcp	194.99.20.6:17659	192.168.56.3:17659	202.98.65.43:20	202.98.65.43:20
tcp	194.99.20.8:21599	192.168.56.7:21599	215.85.27.41:20	215.85.27.41:20
udp	194.99.20.2:18992	192.168.56.8:18992	202.73.42.42:80	202.73.42.42:80
---	194.99.20.1	192.168.56.9	---	---
---	194.99.20.2	192.168.56.8	---	---
---	194.99.20.9	192.168.56.2	---	---
---	194.99.20.8	192.168.56.7	---	---
---	194.99.20.7	192.168.56.4	---	---
---	194.99.20.6	192.168.56.3	---	---
---	194.99.20.4	192.168.56.1	---	---

Considering a router that connects a corporate network to the Internet, and the above router's NAT translations table where all entries are dynamic, answer True or False to the following sentences:

Considering a router that connects a corporate network to the Internet, and the above router's NAT translations table where all entries are dynamic, answer True or False to the following sentences:

Seven (7) hosts with private IPv4 addresses are accessing the Internet. True True

A packet (from the Internet) that reaches this router with destination address 194.99.20.7 will be forwarded to the private network host with address 192.168.56.4. True True

The Port Address Translation (PAT) mechanism is enabled. ~~True~~ False Todos os ip's são diferentes

There are two (2) active UDP connections to the Internet. False False

Grading: right answer: 25%, wrong answer: -12%, no answer: 0%

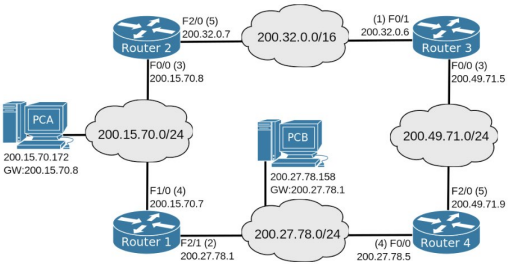
Pergunta **5**

Por responder

Nota: 2,50

Marcar pergunta

Tempo restante 0:18:2



Considering the above network where all routers have the OSPFv2 active for all interfaces, the OSPF cost of each interface is indicated between parentesis next to the respective interface, and the routing process is stabilized, answer True or False to the following sentences:

The full IPV4 routing table entry in Router 1 for network 200.49.71.0/24 is

```
O 200.49.71.0/24 [110/7] via 200.27.78.5, 00:00:02, F2/1
```

. True ⇕ True

The full IPV4 routing table entry in Router 4 for network 200.32.0.0/16 is

```
O 200.32.0.0/16 [110/6] via 200.49.71.5, 00:00:04, F2/0
```

. True ⇕ True

The full IPV4 routing table entry in Router 2 for network 200.49.71.0/24 is

```
O 200.49.71.0/24 [110/9] via 200.32.0.6, 00:00:04, F2/0
```

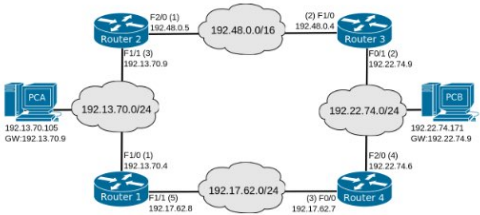
. False ⇕ False Como existem duas portas com o mesmo custo logo deviam de estar 2 "vias"

The full IPV4 routing table entry in Router 3 for network 200.27.78.0/24 is

```
O 200.27.78.0/24 [110/7] via 200.27.78.5, 00:00:15, F2/1
```

. False ⇕ False Tem custo 6, não 7

Tempo restante 0:17:0



Considering the above network where all routers have the OSPFv2 active for all interfaces, the OSPF cost of each interface is indicated between parentesis next to the respective interface, and the routing process is stabilized, answer True or False to the following sentences:

The full IPV4 routing table entry in Router 2 for network 192.17.62.0/24 is

```
O 192.17.62.0/24 [110/6] via 192.48.0.4, 00:00:09, F2/0
```

False ✗ True

The full IPV4 routing table entry in Router 3 for network 192.17.62.0/24 is

```
O 192.17.62.0/24 [110/5] via 192.22.74.6, 00:00:06, F0/1
```

True ✓ True

The full IPV4 routing table entry in Router 1 for network 192.48.0.0/16 is

```
O 192.48.0.0/16 [110/3] via 192.13.70.9, 00:00:21, F1/0
```

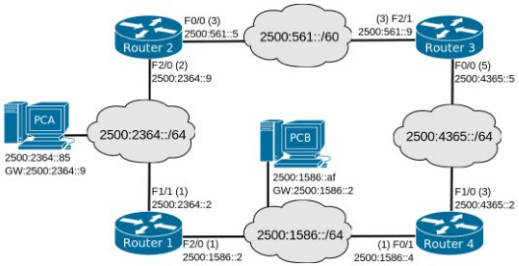
False ✓ False O custo é 2 não 3

The full IPV4 routing table entry in Router 4 for network 192.48.0.0/16 is

```
O 192.48.0.0/16 [110/6] via 192.22.74.9, 00:00:21, F2/0
```

False ✓ False O custo é 5, não 6

Tempo restante 0:11



Router 1

Interface F1/1: FE80::C735:E0C5:D41A:C7F2

Interface F2/0: FE80::DD09:8C8B:E679:9ACB

Router 2

Interface F2/0: FE80::DE3C:AA32:D710:BE79

Interface F0/0: FE80::D7A1:E09F:9D8C:9F5A

Router 3

Interface F2/1: FE80::CC26:E76F:CF2A:B2B0

Interface F0/0: FE80::79BF:B072:ADFC:C7CE

Router 4

Interface F1/0: FE80::E8D1:8D4A:AF68:C961

Interface F0/1: FE80::8B5C:CBA5:94BA:A0D6

Considering the above network where all routers have the OSPFv3 active for all interfaces, the OSPF cost of each interface is indicated between parentesis next to the respective interface, the aboce listed Link-Local addresses, and that the routing process is stabilized, answer True or False to the following sentences:

The full IPV4 routing table entry in Router 4 for network 2500:561::/60 is

```
O 2500:561::/60 [110/5] via FE80::DD09:8C8B:E679:9ACB, 00:00:21, F0/1
```

. True True

The full IPV4 routing table entry in Router 1 for network 2500:4365::/64 is

```
O 2500:4365::/64 [110/5] via FE80::8B5C:CBA5:94BA:A0D6, 00:00:17, F2/0
```

. False False O custo é 4, não 5

The full IPV4 routing table entry in Router 2 for network 2500:1586::/64 is

```
O 2500:1586::/64 [110/5] via FE80::DD09:8C8B:E679:9ACB, 00:00:18, F0/1
```

. False False O custo é 3, não 5 e a porta é f2/0

The full IPV4 routing table entry in Router 3 for network 2500:1586::/64 is

```
O 2500:1586::/64 [110/6] via FE80::E8D1:8D4A:AF68:C961, 00:00:17, F0/0
```

. False False Como existem 2 caminhos com o mesmo custo logo deviam de existir dois caminhos na routing table

Voltar

Tempo restante 0:09:46

Pergunta **8**

Resposta guardada

Nota: 2,50

Marcar pergunta

Packet 1

```
Border Gateway Protocol - UPDATE Message
   Marker: ffffffffffffffffffffffffffffffff
   Length: 71
   Type: UPDATE Message (2)
   Withdrawn Routes Length: 0
   Total Path Attribute Length: 38
   Path Attributes
      Path Attribute - ORIGIN: IGP
      Path Attribute - AS_PATH: empty
      Path Attribute - NEXT_HOP: 10.54.69.5
      Path Attribute - LOCAL_PREF: 300
   Network Layer Reachability Information (NLRI)
```

Considering the above BGP (partial) packet exchanged between two BGP neighbors:

Selecione uma opção de resposta:

- a. This is a BGP update between two routers from the same AS (iBGP), announcing a network (in NLRI field) from their own AS.
- b. This is a BGP update between two routers from different AS (eBGP), announcing a network (in NLRI field) from AS 300.
- c. This is a BGP update between two routers from the same AS (iBGP), announcing a network (in NLRI field) from a different AS.
- d. This is a BGP update between two routers from different AS (eBGP), announcing a network (in NLRI field) from a different third AS.

Limpar a minha escolha