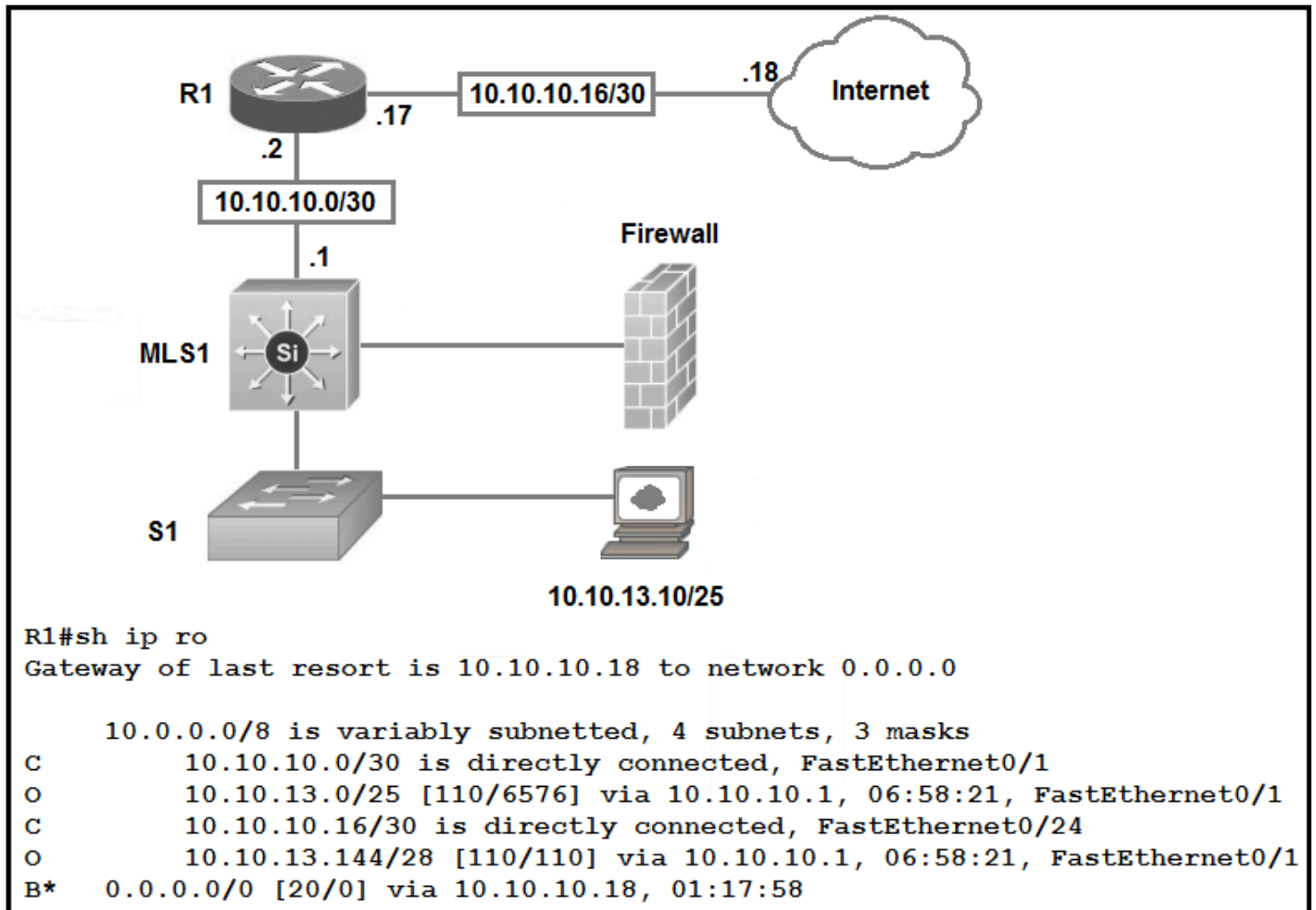


Cisco Certified Network Associate (CCNA)

1. Refer to the exhibit. Which type of route does R1 use to reach host 10.10.13.10/32?



A. default route

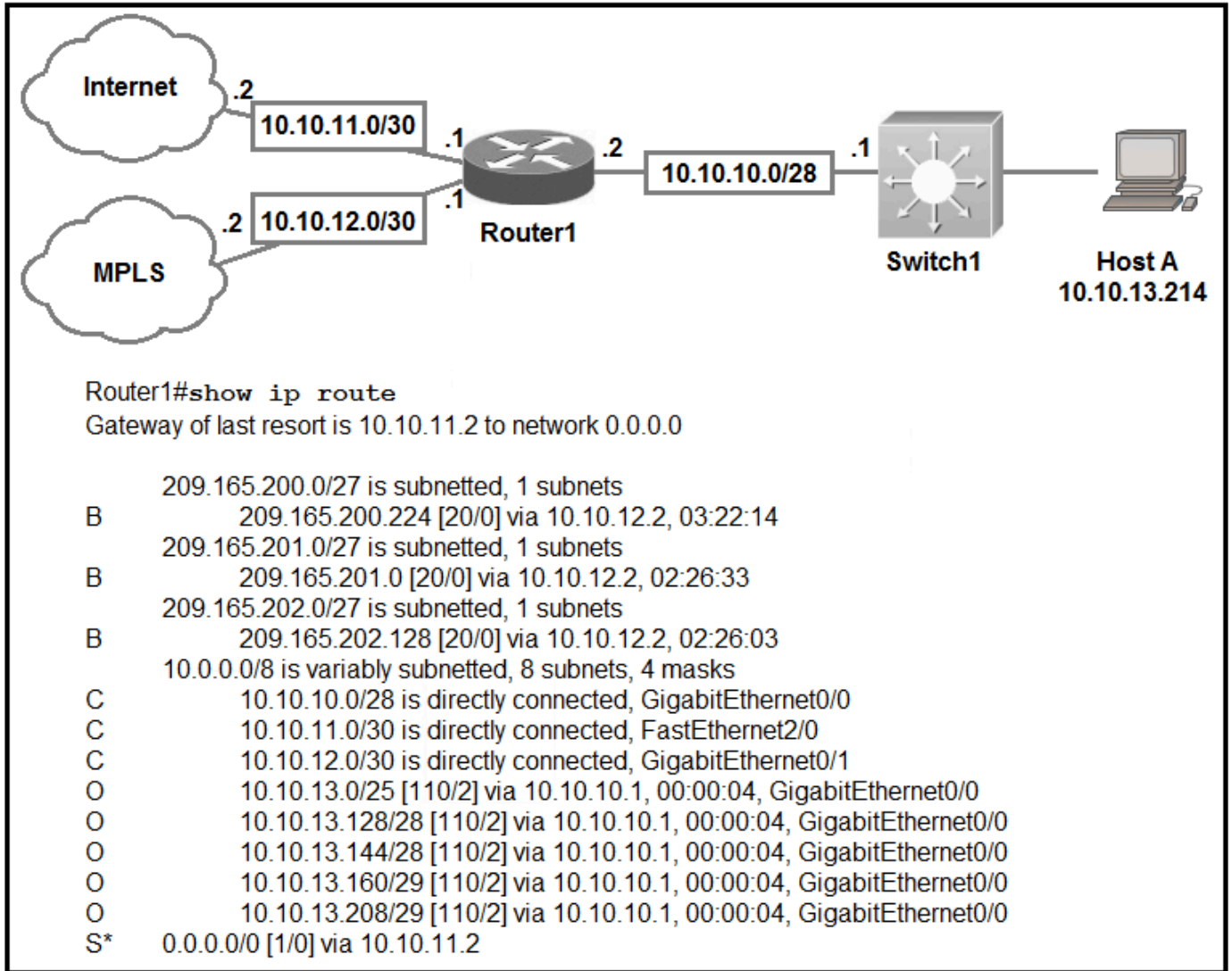
B. network route

C. host route

D. floating static route

Answer(s): B

2. Refer to the exhibit. Which prefix does Router1 use for traffic to Host A?



A. 10.10.10.0/28

B. 10.10.13.0/25

C. 10.10.13.144/28

D. 10.10.13.208/29

Answer(s): D

3. DRAG DROP (Drag and Drop is not supported)

Drag and drop the descriptions of file-transfer protocols from the left onto the correct protocols on the right.

Select and Place:

Answer Area

provides reliability when loading an IOS image upon boot up	FTP [] [] []
does not require user authentication	
uses port 69	
uses ports 20 and 21	TFTP [] [] []
uses TCP	
uses UDP	

A. See Explanation section for answer.

Answer(s): A

4. A frame that enters a switch fails the Frame Check Sequence. Which two interface counters are incremented? (Choose two.)

- A. input errors
- B. frame
- C. giants
- D. CRC
- E. runts

Answer(s): A D

5. DRAG DROP (Drag and Drop is not supported)

Drag and drop the IPv4 network subnets from the left onto the correct usable host ranges on the right.

Select and Place:

Answer Area

- 172.28.228.144/18
- 172.28.228.144/21
- 172.28.228.144/23
- 172.28.228.144/25
- 172.28.228.144/29

- 172.28.228.1 - 172.28.229.254
- 172.28.224.1 - 172.28.231.254
- 172.28.228.129 - 172.28.228.254
- 172.28.228.145 - 172.28.228.150
- 172.28.192.1 - 172.28.255.254

A. See Explanation section for answer.

Answer(s): A

6. How do TCP and UDP differ in the way that they establish a connection between two endpoints?

- A. TCP uses the three-way handshake, and UDP does not guarantee message delivery.
- B. TCP uses synchronization packets, and UDP uses acknowledgment packets.
- C. UDP provides reliable message transfer, and TCP is a connectionless protocol.
- D. UDP uses SYN, SYN ACK, and FIN bits in the frame header while TCP uses SYN, SYN ACK, and ACK bits.

Answer(s): A

7. Which 802.11 frame type is Association Response?

- A. management
- B. protected frame
- C. action
- D. control

Answer(s): A

8. In which way does a spine-and-leaf architecture allow for scalability in a network when additional access ports are required?

A. A spine switch and a leaf switch can be added with redundant connections between them.

B. A spine switch can be added with at least 40 GB uplinks.

C. A leaf switch can be added with connections to every spine switch.

D. A leaf switch can be added with a single connection to a core spine switch.

Answer(s): C

9. What identifies the functionality of virtual machines?

A. The hypervisor communicates on Layer 3 without the need for additional resources.

B. Each hypervisor supports a single virtual machine and a single software switch.

C. The hypervisor virtualizes physical components including CPU, memory, and storage.

D. Virtualized servers run efficiently when physically connected to a switch that is separate from the hypervisor.

Answer(s): C

10. Which command automatically generates an IPv6 address from a specified IPv6 prefix and MAC address of an interface?

A. ipv6 address dhcp

B. ipv6 address 2001:DB8:5:112::/64 eui-64

C. ipv6 address autoconfig

D. ipv6 address 2001:DB8:5:112::2/64 link-local

Answer(s): B

11. When configuring IPv6 on an interface, which two IPv6 multicast groups are joined? (Choose two.)

A. 2000::/3

B. 2002::5

C. FC00::/7

D. FF02::1

E. FF02::2

Answer(s): D E

12. DRAG DROP (Drag and Drop is not supported)

Refer to the exhibit.

```
[root@HostTest ~]# ip route
default via 192.168.1.193 dev eth1 proto static
192.168.1.0/26 dev eth1 proto kernel scope link src 192.168.1.200 metric 1

[root@HostTest ~]# ip addr show eth1
eth1: mtu 1500 qdisc pfifo_fast qlen 1000
link/ether 00:0c:22:83:79:a3 brd ff:ff:ff:ff:ff:ff
inet 192.168.1.200/26 brd 192.168.1.255 scope global eth1
inet6 fe80::20c:29ff:fe89:79b3/64 scope link
valid_lft forever preferred_lft forever
```

Drag and drop the networking parameters from the left onto the correct values on the right.

Select and Place:

Answer Area

default gateway	00:0c:22
host IP address	00.0c.22.83.79.a3
NIC MAC address	192.168.1.193
NIC vendor OUI	192.168.1.200
subnet mask	255.255.255.192

A. See Explanation section for answer.

Answer(s): A

13. What is the default behavior of a Layer 2 switch when a frame with an unknown destination MAC address is received?

A. The Layer 2 switch forwards the packet and adds the destination MAC address to its MAC address table.

B. The Layer 2 switch sends a copy of a packet to CPU for destination MAC address learning.

C. The Layer 2 switch floods packets to all ports except the receiving port in the given VLAN.

D. The Layer 2 switch drops the received frame.

Answer(s): C

14. An engineer must configure a /30 subnet between two routes. Which usable IP address and subnet mask combination meets this criteria?

A. interface e0/0 description to XX-AXXX:XXXXX ip address 10.2.1.3 255.255.255.252

B. interface e0/0 description to XX-AXXX:XXXXX ip address 192.168.1.1 255.255.255.248

C. interface e0/0 description to XX-AXXX:XXXXX ip address 172.16.1.4 255.255.255.248

D. interface e0/0 description to XX-AXXX:XXXXX ip address 209.165.201.2 225.255.255.252

Answer(s): D

15. Which network allows devices to communicate without the need to access the Internet?

A. 172.9.0.0/16

B. 172.28.0.0/16

C. 192.0.0.0/8

D. 209.165.201.0/24

Answer(s): B

16. Refer to the exhibit. Which statement explains the configuration error message that is received?

```
Router(config)#interface GigabitEthernet 1/0/1
Router(config-if)#ip address 192.168.16.143 255.255.255.240
Bad mask /28 for address 192.168.16.143
```

A. It belongs to a private IP address range.

B. The router does not support /28 mask.

C. It is a network IP address.

D. It is a broadcast IP address.

Answer(s): D

17. Which IPv6 address type provides communication between subnets and cannot route on the Internet?

A. link-local

B. unique local

C. multicast

D. global unicast

Answer(s): B

18. Which IPv6 address block sends packets to a group address rather than a single address?

A. 2000::/3

B. FC00::/7

C. FE80::/10

D. FF00::/8

Answer(s): D

19. What are two reasons that cause late collisions to increment on an Ethernet interface? (Choose two.)

A. when Carrier Sense Multiple Access/Collision Detection is used

B. when one side of the connection is configured for half-duplex

C. when the sending device waits 15 seconds before sending the frame again

D. when a collision occurs after the 32nd byte of a frame has been transmitted

E. when the cable length limits are exceeded

Answer(s): B E

20. What is a benefit of using a Cisco Wireless LAN Controller?

A. It eliminates the need to configure each access point individually.

B. Central AP management requires more complex configurations.

C. Unique SSIDs cannot use the same authentication method.

D. It supports autonomous and lightweight APs.

Answer(s): A
