1

In an IPv4 environment, what information is used by the router to forward data packets from one interface of a router to another?

- (●) destination network address
- ( ) source network address
- ( ) source MAC address
- ( ) well known port destination address

2

Which two of the following statements accurately describe a default gateway? (Choose two.)

- [ ] A default gateway is used when a host transfers data to another host on the same network segment.
- [■] A default gateway is the IP address assigned to the near-side router interface.
- [ ] A default gateway is the IP address assigned to the near-side switch interface.
- [■] A default gateway is used when a host transfers data to a host on another network segment.

3

What information is added during encapsulation at OSI Layer 3?

- ( ) source and destination MAC
- ( ) source and destination application protocol
- ( ) source and destination port number
- (●) source and destination IP address

4

In a connectionless system, which of the following is correct?

- ( ) The destination is contacted before a packet is sent.
- (●) The destination is not contacted before a packet is sent.
- ( ) The destination sends an acknowledgement to the source that indicates the packet was received.
- ( ) The destination sends an acknowledgement to the source that requests the next packet to be sent.

5

Which statement below is talking about the network layer?

- ( ) Provides electrical, mechanical, procedural and functional means for activating and maintaining the link between systems.
- ( ) Establishes, maintains, and manages sessions between applications.
- (●) Uses the Internet Protocol addressing scheme to determine the best way to move data from one place to another.
- ( ) Uses a MAC address to provide physical transmission across media and handles error notification, network topology, and flow control.

6

Which IP packet field will prevent endless loops?

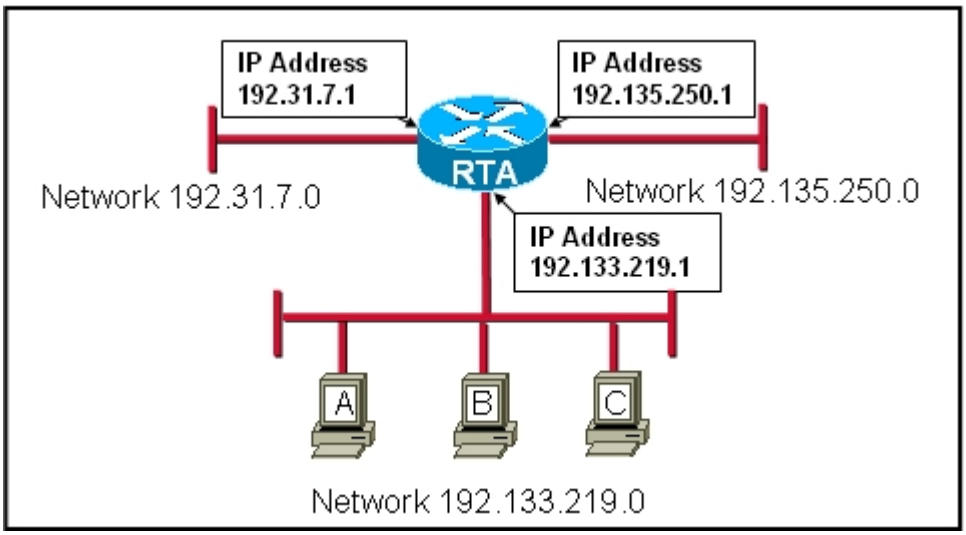
- ( ) type-of-service
- ( ) identification
- ( ) flags
- (●) time-to-live
- ( ) header checksum

7

Which portion of the network layer address does a router use to forward packets?

- host portion
- broadcast address
- network portion
- gateway address

8



Refer to the exhibit. Using the network in the exhibit, what would be the default gateway address for host A in the 192.133.219.0 network?

- 192.135.250.1
- 192.31.7.1
- 192.133.219.0
- 192.133.219.1

9

If the default gateway is configured incorrectly on the host, what is the impact on communications?

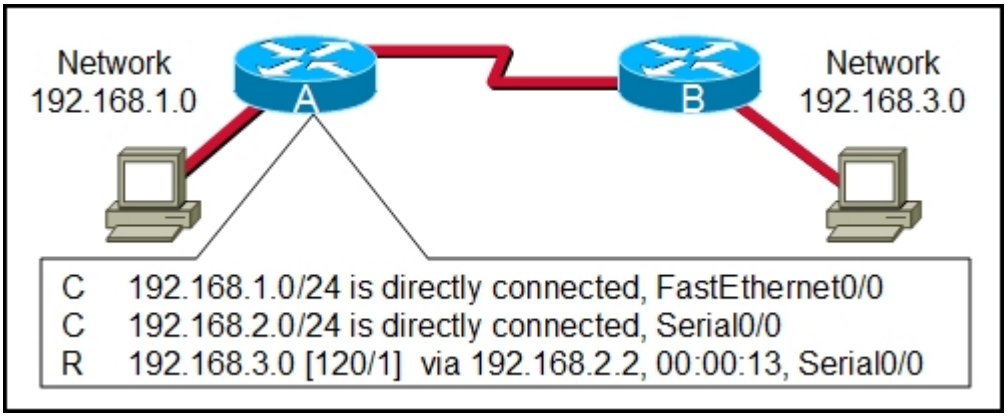
- The host is unable to communicate on the local network.
- The host can communicate with other hosts on the local network, but is unable to communicate with hosts on remote networks.
- The host can communicate with other hosts on remote networks, but is unable to communicate with hosts on the local network.
- There is no impact on communications.

10

What is the purpose of a default gateway?

- physically connects a computer to a network
- provides a permanent address to a computer
- identifies the network to which a computer is connected
- identifies the logical address of a networked computer and uniquely identifies it to the rest of the network
- identifies the device that allows local network computers to communicate with devices on other networks

11



Refer to the exhibit. The output is shown for the show ip route command executed on Router A. What does the IP address 192.168.2.2 represent?

- ○ Gateway for the 192.168.1.0 network
- ○ Gateway for the 192.168.3.0 network
- ○ IP assigned to the serial port on Router A
- ◉ IP assigned to the serial port on Router B

12

What type of routing uses information that is manually entered into the routing table?

- ○ dynamic
- ○ interior
- ◉ static
- ○ standard

13

What are the functions of a routing protocol? (Choose three.)

- ■ provides the process for sharing route information between routers
- □ enables routers to manually configure the best path
- ■ enables routers to maintain the routing tables
- ■ enables routers to choose the best path to route the packet
- □ provides the process for sharing IP addresses between routers
- □ enables routers to change Layer 3 address header

14

When the destination network is not listed in the routing table of a Cisco router, what are two possible actions that the router might take? (Choose two.)

- □ The router sends an ARP request to determine the required next hop address.
- ■ The router discards the packet.
- □ The router forwards the packet toward the next hop indicated in the ARP table.
- □ The router forwards the packet to the interface indicated by the source address.
- ■ The router forwards the packet out the interface indicated by the default route entry