

Cisco

Exam 300-101

Implementing Cisco IP Routing

Version: 11.0

[Total Questions: 150]

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Topic 1, Network Principles**Question No : 1 - (Topic 1)**

Which switching method is used when entries are present in the output of the command show ip cache?

- A. fast switching
- B. process switching
- C. Cisco Express Forwarding switching
- D. cut-through packet switching

Answer: A

Question No : 2 - (Topic 1)

Refer to the exhibit.

```
R2#show ip cef
```

Prefix	Next Hop	Interface
0.0.0.0/0	192.168.201.1	FastEthernet0/0
0.0.0.0/32	receive	
192.168.201.0/27	attached	FastEthernet0/0
192.168.201.0/32	receive	
192.168.201.1/32	192.168.201.1	FastEthernet0/0
192.168.201.2/32	receive	
192.168.201.31/32	receive	
224.0.0.0/4	drop	
224.0.0.0/24	receive	
255.255.255.255/32	receive	

Based on this FIB table, which statement is correct?

- A. There is no default gateway.
- B. The IP address of the router on FastEthernet is 209.168.201.1.
- C. The gateway of last resort is 192.168.201.1.
- D. The router will listen for all multicast traffic.

Answer: C

Question No : 3 - (Topic 1)

A network administrator uses IP SLA to measure UDP performance and notices that packets on one router have a higher one-way delay compared to the opposite direction. Which UDP characteristic does this scenario describe?

- A. latency
- B. starvation
- C. connectionless communication
- D. nonsequencing unordered packets
- E. jitter

Answer: A

Question No : 4 - (Topic 1)

Which three TCP enhancements can be used with TCP selective acknowledgments? (Choose three.)

- A. header compression
- B. explicit congestion notification
- C. keepalive
- D. time stamps
- E. TCP path discovery
- F. MTU window

Answer: B,C,D

Question No : 5 - (Topic 1)

Which three problems result from application mixing of UDP and TCP streams within a

network with no QoS? (Choose three.)

- A. starvation
- B. jitter
- C. latency
- D. windowing
- E. lower throughput

Answer: A,C,E

Question No : 6 - (Topic 1)

Which two actions must you perform to enable and use window scaling on a router?
(Choose two.)

- A. Execute the command `ip tcp window-size 65536`.
- B. Set window scaling to be used on the remote host.
- C. Execute the command `ip tcp queuemax`.
- D. Set TCP options to "enabled" on the remote host.
- E. Execute the command `ip tcp adjust-mss`.

Answer: A,B

Question No : 7 - (Topic 1)

A network engineer notices that transmission rates of senders of TCP traffic sharply increase and decrease simultaneously during periods of congestion. Which condition causes this?

- A. global synchronization
- B. tail drop
- C. random early detection
- D. queue management algorithm

Answer: A

Question No : 8 - (Topic 1)

A network administrator executes the command `clear ip route`. Which two tables does this command clear and rebuild? (Choose two.)

- A. IP routing
- B. FIB
- C. ARP cache
- D. MAC address table
- E. Cisco Express Forwarding table
- F. topology table

Answer: A,B

Question No : 9 - (Topic 1)

Under which condition does UDP dominance occur?

- A. when TCP traffic is in the same class as UDP
- B. when UDP flows are assigned a lower priority queue
- C. when WRED is enabled
- D. when ACLs are in place to block TCP traffic

Answer: A

Question No : 10 - (Topic 1)

Which method allows IPv4 and IPv6 to work together without requiring both to be used for a single connection during the migration process?

- A. dual-stack method
- B. 6to4 tunneling
- C. GRE tunneling
- D. NAT-PT

Answer: A

Question No : 11 - (Topic 1)

Which statement about the use of tunneling to migrate to IPv6 is true?

- A. Tunneling is less secure than dual stack or translation.
- B. Tunneling is more difficult to configure than dual stack or translation.
- C. Tunneling does not enable users of the new protocol to communicate with users of the old protocol without dual-stack hosts.
- D. Tunneling destinations are manually determined by the IPv4 address in the low-order 32 bits of IPv4-compatible IPv6 addresses.

Answer: C

Question No : 12 - (Topic 1)

Refer to the exhibit.

```
Router#show adjacency
```

Protocol	Interface	Address
IP	Serial0	192.168.209.130(2) (incomplete)
IP	Serial0	192.168.209.131(7)
IP	Ethernet0	192.168.201.1(7)

A network administrator checks this adjacency table on a router. What is a possible cause for the incomplete marking?

- A. incomplete ARP information
- B. incorrect ACL
- C. dynamic routing protocol failure
- D. serial link congestion

Answer: A

Topic 2, Layer 2 Technologies

Question No : 13 - (Topic 2)

A corporate policy requires PPPoE to be enabled and to maintain a connection with the ISP, even if no interesting traffic exists. Which feature can be used to accomplish this task?

- A. TCP Adjust
- B. Dialer Persistent
- C. PPPoE Groups
- D. half-bridging
- E. Peer Neighbor Route

Answer: B

Question No : 14 - (Topic 2)

Which statement is true about the PPP Session Phase of PPPoE?

- A. PPP options are negotiated and authentication is not performed. Once the link setup is completed, PPPoE functions as a Layer 3 encapsulation method that allows data to be transferred over the PPP link within PPPoE headers.
- B. PPP options are not negotiated and authentication is performed. Once the link setup is completed, PPPoE functions as a Layer 4 encapsulation method that allows data to be transferred over the PPP link within PPPoE headers.
- C. PPP options are automatically enabled and authorization is performed. Once the link setup is completed, PPPoE functions as a Layer 2 encapsulation method that allows data to be encrypted over the PPP link within PPPoE headers.
- D. PPP options are negotiated and authentication is performed. Once the link setup is completed, PPPoE functions as a Layer 2 encapsulation method that allows data to be transferred over the PPP link within PPPoE headers.

Answer: D

Question No : 15 - (Topic 2)

Prior to enabling PPPoE in a virtual private dialup network group, which task must be completed?

- A. Disable CDP on the interface.
- B. Execute the vpdn enable command.
- C. Execute the no switchport command.
- D. Enable QoS FIFO for PPPoE support.

Answer: B

Question No : 16 - (Topic 2)

PPPoE is composed of which two phases?

- A. Active Authentication Phase and PPP Session Phase
- B. Passive Discovery Phase and PPP Session Phase
- C. Active Authorization Phase and PPP Session Phase
- D. Active Discovery Phase and PPP Session Phase

Answer: D

Question No : 17 - (Topic 2)

Which protocol uses dynamic address mapping to request the next-hop protocol address for a specific connection?

- A. Frame Relay inverse ARP
- B. static DLCI mapping
- C. Frame Relay broadcast queue
- D. dynamic DLCI mapping

Answer: A

Question No : 18 - (Topic 2)

A network engineer has been asked to ensure that the PPPoE connection is established and authenticated using an encrypted password. Which technology, in combination with PPPoE, can be used for authentication in this manner?

- A. PAP
- B. dot1x
- C. IPsec
- D. CHAP
- E. ESP

Answer: D

Question No : 19 - (Topic 2)

Which PPP authentication method sends authentication information in clear text?

- A. MS CHAP
- B. CDPCP
- C. CHAP
- D. PAP

Answer: D

Topic 3, Layer 3 Technologies

Question No : 20 - (Topic 3)

You have been asked to evaluate how EIGRP is functioning in a customer network.