Vendor: CISCO

Exam Code: 350-001

Exam Name: CCIE R&S Written Exam
QUESTION 1
Your Cisco network currently runs OSPF and you have a need to policy-route some specific traffic, regardless of what the routing table shows. Which one of these options would enable you to policy-route the traffic?

A. Source IP address and the protocol (such as SSL, HTTPS, SSH)
B. The packet Time to Live and the source IP address
C. Type of service header and DSCP value
D. Destination IP address

Answer: A

QUESTION 2
Which statement correctly describes the disabling of IP TTL propagation in an MPLS network?

A. The TTL field from the IP packet is copied into the TTL field of the MPLS label header at the ingress edge LSR.
B. TTL propagation cannot be disabled in an MPLS domain.
C. TTL propagation is only disabled on the ingress edge LSR.
D. The TTL field of the MPLS label header is set to 255.
E. The TTL field of the IP packet is set to 0.

Answer: D

QUESTION 3
In PIM-SM what control plane signaling must a multicast source perform before it begins to send multicast traffic to a group?

A. The source must send a PIM Register message to the rendezvous point (RP).
B. The source must first join the multicast group using IGMP before sending.
C. The source must perform a Request to Send (RTS) and Clear to Send (CTS) handshake with the PIM designated router (DR)
D. No control plane signaling needs to be performed; the source can simply begin
sending on the local subnet.

Answer: D

QUESTION 4
Refer to the exhibit

```
R6#sh ipv6 mroute
<...>
(*:FF04::10), 00:00:46/never, RP 2001:DB8:5::5, flags: SPC
Incoming interface: GigabitEthernet0/0
RPF nbr: FE80::216:47FF:FEBB::FF0
```

We have IPv6 multicast configured between R5 and R6. Which two statements are true based on the partial command output shown? (Choose two)

A. R6 has joined the multicast group, and it expires in 46 seconds
B. The rendezvous point address is FE80::21 6:47FF:FEBB::FF0.
C. The address is FF04::1 0.
D. The multicast entry is operating in dense mode.
E. The multicast route has been pruned.

Answer: CE

QUESTION 5
You are using IPv6, and would like to configure EIGRPv3. Which three of these correctly describe how you can perform this configuration? (Choose three)

A. EIGRP for IPv6 is directly configured on the interfaces over which it runs.
B. EIGRP for IPv6 is not configured on the interfaces over which it runs, but if a user uses passive- interface configuration, EIGRP for IPv6 needs to be configured on the interface that is made passive.
C. There is a network statement configuration in EIGRP for IPv6, the same as for IPv4.
D. There is no network statement configuration in EIGRP for IPv6.
E. When a user uses a passive-interface configuration, EIGRP for IPv6 does not need to be configured on the interface that is made passive.
F. When a user uses a non-passive-interface configuration, EIGRP for IPv6 does not need to be configured on the interface that is made passive

Answer: AEF

QUESTION 6
Which information is carried in an OSPFv3 intra-area-prefix LSA?

A. IPv6 prefixes
B. Link-local addresses
C. Solicited node multicast addresses
D. IPv6 prefixes and topology information

Answer: A

QUESTION 7
Though many options are supported in EIGRPv6, select two options from the below list that are supported. (Choose 2)

A. VRF
B. Auto-summary
C. Per-interface configuration
D. Prefix-list support via route-map
E. Prefix-list support via distribute-list

Answer: CE

QUESTION 8
Refer to the exhibit.
Router E learned about the PIM RP (designated as 7.7.7.7) from four different sources. Routers A and D advertised the 7.0.0.0 network via EIGRP. Routers B and C advertised the 7.0.0.0 network via OSPF. Considering that all four Ethernet interfaces on router E could potentially lead back to the PIM-RP, when router E receives the first multicast packet down the shared tree, which incoming interface will be used to successfully pass the RPF check?

A. E0  
B. E1  
C. E2  
D. E3  
E. None of these interfaces will be used to successfully pass the RPF check.  
F. All of these interfaces would successfully pass the RPF check.

Answer: A

**QUESTION 9**
Refer to the exhibit.
Two ISPs have decided to use MSDP and configured routers X and Y (both are PIM RPs) as MSDP peers.

In the domain of ISP B, PC A has sent an IGMP membership report for the group 224.1.1.1 and PC B has sent an IGMP membership report for the group 224.5.5.5.

Assuming that the MSDP peering relationship between routers X and Y is functional, and given the partial configuration output shown from router X, which two of these statements are true? (Choose two.)

A. Router X will contain an entry for 224.1.1.1 in its SA cache and will also have an installed (S,G)
entry for this in its mroute table.
B. Router X will not contain an entry for 224.1.1.1 in its SA cache but will have an installed
(*,G)
entry for this in its mroute table.
C. Router X will not contain an entry for 224.5.5.5 in its SA cache but will have an installed (S,G) entry for this in its mroute table.
D. Router X will not contain an entry for 224.5.5.5 in its SA cache but will have an installed (*,G) entry for this in its mroute table.
E. Router X will have no entries for 224.5.5.5 in neither its SA cache nor in its mroute table.
F. Router X will have no entries for 224.1.1.1 in neither its SA cache nor in its mroute table.

Answer: AD

QUESTION 10
Which three statements are true about Source Specific Multicast? (Choose three)

A. Is best suited for applications that are in the one-to-many category.
B. SSM uses shortest path trees only.
C. The use of SSM is recommended when there are many sources and it is desirable to keep the amount of mroute state in the routers in the network to a minimum.
D. There are no RPs to worry about.

Answer: ABD

QUESTION 11
Which of these is mandatory when configuring Cisco IOS Firewall?

A. Cisco IOS IPS enabled on the untrusted interface
B. NBAR enabled to perform protocol discovery and deep packet inspection
C. A route map to define the trusted outgoing traffic
D. A route map to define the application inspection rules
E. An inbound extended ACL applied to the untrusted interface

Answer: E

QUESTION 12
NBAR supports all of these with the exception of which one?

A. HTTP
B. IP multicast
C. TCP flows with dynamically assigned port numbers
D. non-UDP protocols

Answer: B

QUESTION 13
You are the network administrator of an enterprise with a main site and multiple remote sites. Your network carries both VOIP and data traffic. You agree with your service provider to classify VOIP and data traffic according to the different service RFCs. How can your data and VOIP traffic be marked?

A. Data marked with DSCP AF21, VOIP marked with DSCP EF
B. Data marked with DSCP AF51, VOIP marked with DSCP EF
C. Data marked with the DE-bit, VOIP marked with the CLP-bit
D. Data marked with DSCP EF, VOIP marked with DSCP AF31
E. Data marked with IP precedence 5, VOIP marked with DSCP EF

Answer: A

QUESTION 14
When running IP SLA, which application type should be used if you want to know round-trip delay, jitter, and packet loss for the full path?

A. ICMP path echo
B. UDP echo
C. ICMP path jitter
D. Application Performance Monitor
E. TCP connect

Answer: C
QUESTION 15
Refer to the exhibit. Based on this configuration, what type of marker is achieved?

```
policy-map QoS\Policer
  class PolicedTraffic
    police cir 512000 pir 1024000
    conform-action transmit
    exceed-action set-dscp-transmit cs1
    violate-action drop
```

A. Single-rate, two-color marker
B. Three-rate, two-color marker
C. Two-rate, three-color marker
D. Single-rate, three-color marker

Answer: C

QUESTION 16
Your company is researching a new application that runs over IPv6, but part of it must still have IPv4 support. Your company uses a traditional IPv4 network. Your plan is not to run IPv6 over the whole network, but to segment parts of the network or even to operate simultaneously with IPv6 and IPv4. You must make a brief presentation about IPv6 technology to the board of technical directors. Which three of these items could be part of your presentation? (Choose three.)

A. Tunnel IPv6 over IPv4 to connect far-end IPv6 networks.
B. Explain why configuring IPv4 and IPv6 at the same time over the same LAN interface is not possible.
C. Explain why configuring IPv4 and IPv6 at the same time over the same LAN interface is possible.
D. What is the meaning of EUI-64 and how does it work?
E. Tunnel IPv4 over IPv6 to connect far-end IPv4 networks.

Answer: ACD
QUESTION 17
Refer to exhibits 1 and 2. In exhibit 1, all users on the LAN segment use router A as the active HSRP router. Router B is the standby router for the HSRP. In exhibit 2, the network management team reported that there is no utilization on the WAN link B.
To solve this problem, you decide to change the logical topology of your LAN, but you are not sure about what changes must be made.
You must manage HSRP or change it to another protocol in order to provide the most scalable design, automatic redundancy, and load balancing.
Which one of these actions would be the best choice?

A. Use MHSRP, with three users using router A as the default gateway and three users using router B as the default gateway.
B. Keep HSRP and activate PBR to redirect half of the traffic to the other WAN link.
C. Use the backup interface on the WAN link B to provide load balancing for all users.
D. Use GLBP instead, because it provides you with up to three MAC addresses for the same default gateway virtual IP address.
E. Use GLBP instead, because it provides you with up to four MAC addresses for the same default gateway virtual IP address.

Answer: E

QUESTION 18
You work as a network technician at a famous Company.com, study the exhibit provided.

```
random-detect dscp-based
class GOLD
    priority percent 25
    random-detect dscp-based
policy-map mark
    class 5555
    set dscp af31
    class GOLD
        set dscp 5

interface Tunnel1
    ip address 20.1.1.1 255.255.255.252
    ip load-sharing per-packet
    load-interval 30
    tunnel source 4.4.4.1
    tunnel destination 4.4.4.2

interface Serial0/0
    ip address 4.4.4.1 255.255.255.252
    ip load-sharing per-packet
    ip nat protocol-discovery
    load-interval 30
    service-policy output queue

interface Ethernet0/1
    ip address 3.3.3.1 255.255.255.0
    no ip proxy-arp
    load-interval 30
    half-duplex
    no keepalive
    no cdp enable
    service-policy input mark
    ip route 5.0.0.0 255.0.0.0 Tunnel1
    access-list 104 permit ip any host 5.5.5.4
    access-list 105 permit ip any host 5.5.5.5
```

You are implementing this QoS configuration to improve the bandwidth guarantees for traffic towards two servers, one with the IP address 5.5.5.5 and the other with the IP address 5.5.5.4.

Even after the configuration is applied, performance does not seem to improve. Which will be the most likely cause of this problem?

A. The policy map mark has been applied on a half-duplex Ethernet interface; this is not supported.
B. The policy map queue is configured on the wrong interface; it is applied on the serial
interface whereas traffic is going over the tunnel interface.

C. The class maps are wrongly configured
D. The ip nbar protocol-discover command cannot be configured together with a service policy output on the serial interface.
E. This is probably a software bug

Answer: C

**QUESTION 19**
Which two OSPF LSA types are new in OSPF version 3? (Choose two)

A. Link
B. NSSA external
C. Network link
D. Intra-area prefix
E. AS domain

Answer: AD

**QUESTION 20**
Voice quality is bad due to high delay and jitter on a link. Which two actions will improve the quality of voice calls? (Choose two)

A. Increase the queue size of the voice class.
B. Guarantee bandwidth during congestion to the voice class with a bandwidth command.
C. Increase the tx-ring of the egress interface.
D. Implement LLQ for the voice class.
E. Decrease the rx-ring of the egress interface.
F. Decrease the queue size of the voice class.

Answer: DF