Vendor: Cisco

Exam Code: 400-201

Exam Name: CCIE Service Provider Written Exam v4.1

Version: Demo

QUESTION 1

LDP uses which two components to discover neighbors on a network segment. (Choose two)

A. 224.0.0.1 multicast address
B. 224.0.0.14 multicast address
C. 711 udpport
D. 224.0.0.2 multicast address
E. 646 tcpport
F. 711 tcpport
G. 646 udp port

Correct Answer: DG

QUESTION 2

R3 and R4 are Route-Reflectors and there is an iBGP session between them, there is NO iBGP session between R1 and R2. For an External Route from CE-2 in R2 to reach R1, which two statements are true?
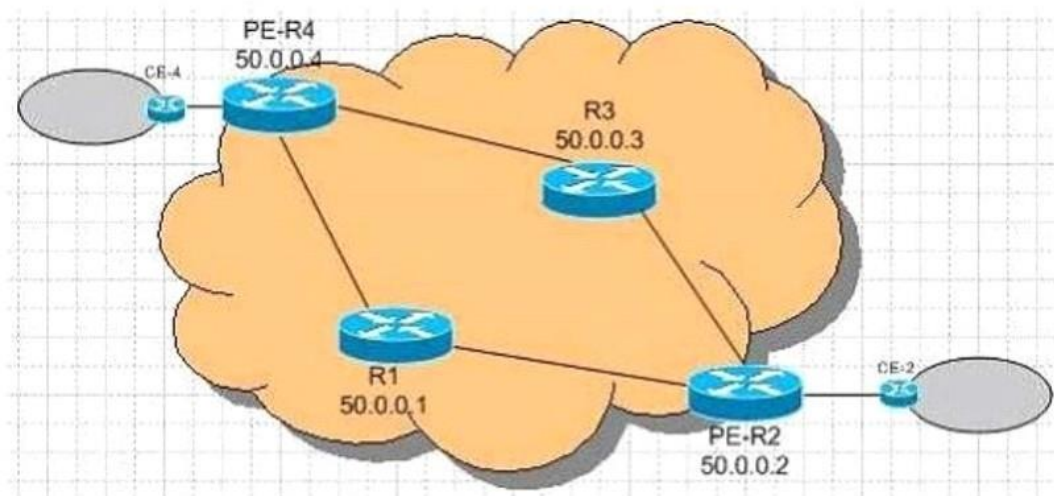
A. R1, R3 and R4 establish full mesh iBGP sessions, R2, R3 and R4 establish full mesh iBGP sessions.
B. R1 acts as a Route-Reflector client to R3, R2 acts as a Route-Reflector client to R4.
C. R1 acts as a Route-Reflector client to R4, R4 acts as a Route-Reflector client to R3, R2 acts as a Route-Reflector client to R3.
D. CE-2 establishes multi-hop E-BGP sessions with R3 and R4.
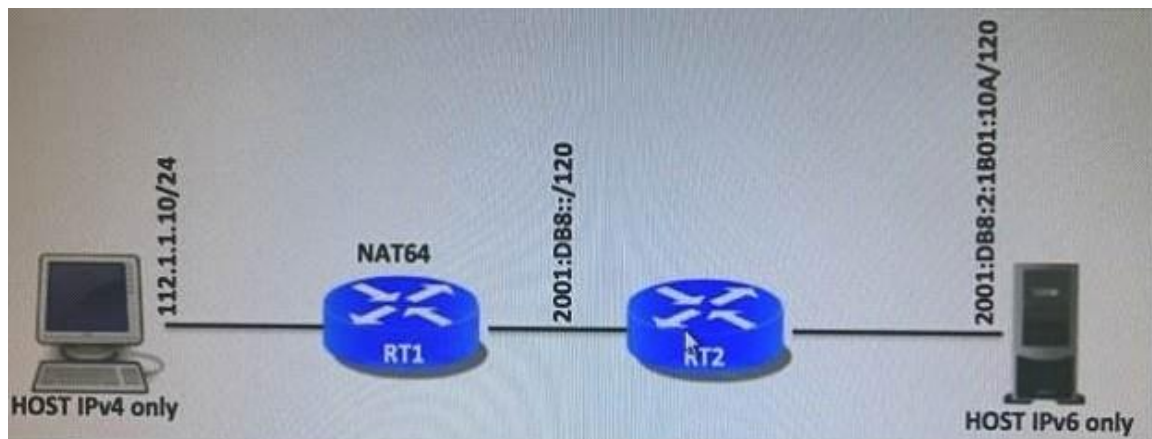
Correct Answer: BC

QUESTION 3

Which Cisco IOS command must be applied to create a multiprotocol VRF?

A. ip vrf

B. ip vrf forwarding

C. vrf definition

D. vrf downgrade-cli

E. vrf forwarding

Correct Answer: C

QUESTION 4

Refer to exhibit. NAT64 stateless configuration has been applied on RT1 router. The NAT64 prefix stateless used on this scenario is 2001:DB8:2::/96. `Host IPv4 only' needs to test the connectivity with `Host IPv6 only' using a ping command. Which is the correct ping command `Host IPv4 only' should use?

A. ping 27.1.1.10

B. ping 27.1.1.10 source 2001:db8:2::7001:10A

C. ping 2001:db8:2::7001:10A

D. ping 2001:db8:2::112.1.1.10

E. ping 2001:db8:2::27.1.1.10

F. ping 2001:db8:2::1B01:10A

Correct Answer: A

QUESTION 5

The following congestion avoidance configuration has been applied on an outgoing interface:

policy-map COS-OUTclass DATA

random-detect dscp-based

random-detect exponential-weighting-constant 9random-detect dscp 26 39 117 30random-detect dscp 28 19 35 20

Which is the result of the egress packets marked as DSCP AF32 when the average queue depth is 40?

A. It will be dropped with a random rate less than the one defined by MPD.
B. It will be tail dropped.
C. It will be dropped with a rate of 1 packet out of 30.
D. D.It will be dropped with a rate of 1 packet out of 20.

Correct Answer: D
Explanation:
AF32 = DSCP28. Random detect has default minimum threshold of 20 packets.

QUESTION 6

A router is able to assign labels to the prefixes and MPLS is enabled on all of the router interfaces. However, this router is unable to establish an LDP session with its LDP neighbors. What could be the cause of this problem?

A. ip cefis not enabled.
B. mpls ip is missing in the global configuration mode.
C. The LDP router ID is unreachable.
D. LIB has no label.

Correct Answer: C

QUESTION 7

An engineer is troubleshooting L3VPN traffic loss over the MPLS-enabled core network when new core links were enabled. Assuming that the IGP is properly configured, which issue causes a temporary data flow blackholing when the IGP and LDP reconvenes?

A. LDP is a Layer 2 protocol forwarding label packets before the IGP reconvened.
B. IP packets are forwarded as soon as routes are learned over a new IGPadjacency before the label exchange happens over the new links

C. MP-BGP sessions between PE and RR routers require extra time to reconverge than the underlying IGP.

D. MPLS-TE tunnels without LDP adjacencies are used over the new links black-holing the traffic before the LDP label exchange is completed

Correct Answer: B

QUESTION 8

Which QoS DiffServ mode preserves the original customer IP marking besides of on egress PE router uses the DSCP value of this IP packet on outbound queuing?

A. MPLS PHB mode

B. Pipe mode

C. IntServ mode

D. Uniform mode

E. Short-Pipe mode

Correct Answer: E

Explanation:

Pipe mode marks the packet based on the EXP value vs short-pipe mode does it based on DSCP

QUESTION 9

Which OSPF feature allows the router to recompute SPF changes for only the affected part of the SPT?

A. PRC

B. fast hellos

C. BFD across the entire backbone area

D. incremental SPF

Correct Answer: D

QUESTION 10

A service provider is considering investing in SP chaining solution , which 3 services can be recommended?

A. Firewall

B. vxlan

C. CGNAT

D. WAAS

E. E-Mail

F. Authoritative DNS

Correct Answer: ACD

QUESTION 11

What loop prevention mechanism can be used for ospf type 3 sla in L3VPN?

A. DNbit

B. Pending

C. Pending

D. Pending

Correct Answer: A

QUESTION 12

Refer to the exhibit. Which three statements describe r RIB-Failure in the show ip bgp command output? (Choose three.)

```
R1> show ip bgp
BGP table version is 5, local router ID is 2.100.200.1
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
              r RIB-failure
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop            Metric LocPrf Weight Path
r> 6.6.6.0/24       10.10.13.3               0    130      0 30 i
*> 7.7.7.0/24       10.10.13.3               0    125      0 30 i
```

A. It is a redundancy route.

B. It is a route with a better administrative distance already present in IGP.

C. The number of routes in VRF exceeds the route limit that is configured under the VRF instance.

D. It is a rerouting entry

E. It indicates memory failure

Correct Answer: BCE

QUESTION 13

Which is the RP address of the IPv6 multicast address FF76:0:130:1234:5678:9abc::4321?

A. 4321:5678:9abc::30

B. 4321:5678:9abc::13

C. 1234:5678:9abc::130

D. 1234:5678:9abc::1

E. 1234:5678:9abc::13

Correct Answer: D

Explanation:

http://www.netcraftsmen.com/wp-content/uploads/2014/12/20090429-CMU-Introduction_to_IP_Multicast.pdfpage 53

QUESTION 14

Refer to the exhibit. The vrf MAINT has been provisioned and used by the Service Provider management network. The engineer discovers that syslog messages are not being received on the syslog server. IP reachability has been validated using ping. Which issue in the configuration must be corrected?

```
Router PE-1

config t
 ip vrf MAINT
  rd 200:1
  route-terget import 100:1
  route-target export 100:1
  exit
!
 interface FastEthernet/0/0
  ip vrf forwarding MAINT
  ip address 10.10.100.2 255.255.255.0
  no shut
  exit
!
 logging on
 logging host 10.10.100.100
 logging trap debugging
 end
```

A. logging on must include the vrf MAINT keyword.

B. logging host must include the vrf MAINT keyword.

C. The logging facility must be configured for syslog processing.

D. The route targets that are configured do not match the route distinguisher.

Correct Answer: B

Explanation:

http://www.cisco.com/c/en/us/td/docs/ios/12_2sr/12_2sra/feature/guide/srvrfslg.html#wp10 59076

QUESTION 15
Which statement about MPLS Traffic Engineering class-based tunnel selection (CBTS) is not true?

A. Local mechanism is at the middle-point router.
B. EXP selection is between multiple tunnels to the same destination
C. Bundle members are configured with EXP values to carry.
D. The tunnel selection is configured on the tunnel master.
E. The tunnel master bundles the tunnel members

Correct Answer: A

QUESTION 16
Refer to the exhibit. What is the status of the L2 tunnel between PE1. PE2. and the Layer 2 switches?
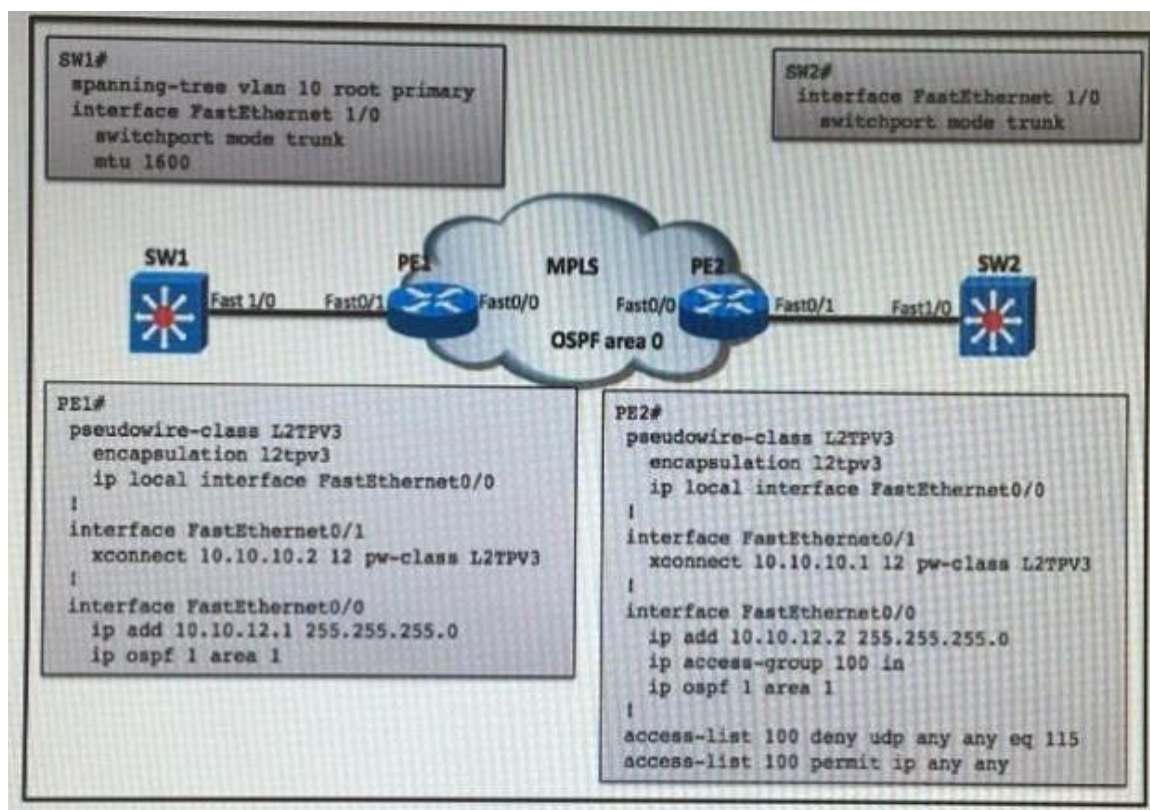
A. The Layer 2 tunnel is up, and SW1 becomes the root bridge for VLAN 10.
B. The Layer 2 tunnel is down, due to the ACL that is applied on the PE2 interface.
C. The Layer 2 tunnel is up, but no BPDUs are exchanged unless an extra configuration is applied.
D. The Layer 2 tunnel is down, due to the MTU mismatch between SW1 and SW2.

Correct Answer: A
Explanation:
Protocol 115 (not UDP/115) is used for L2TPV3. So by blocking UDP/115, the tunnel will still
be up.

QUESTION 17
A network engineer is using the Port Aggregation Protocol to configure EtherChannel
between SW1 and SW2 switches. Which two combinations of mode settings are valid?
(Choose two.)

A. SW1 configured in auto mode and SW2 configured in on mode
B. SW1 configured in auto mode and SW2 configured in auto mode
C. SW1 configured in passive mode and SW2 configured in auto mode
D. ISW1 configured in on mode and SW2 configured in passive mode
E. SW1 configured in desirable mode and SW2 configured in desirable mode
F. SW1 configured in desirable mode and SW2 configured in auto mode

Correct Answer: DE

QUESTION 18
What are the two benefits of graceful restart? (Choose two)

A. Graceful restart allows session information recovery without disruption to the network.
B. A node can perform a graceful restart to help a neighbor recover its state. The label bindings are
    kept on state information, which helps the failed node recover faster and does not affect the
    current forward traffic.
C. Graceful restart allows a node to recover state from its neighbor when there is no RP or before
    the device undergoes SSO.
D. Graceful restart does not allow session information recovery.
E. During a graceful restart, the router removes any stale prefixes after a timer for stale entries
    expires

Correct Answer: AB

QUESTION 19
Which option describes the incorrect usage of the Label Distribution method?

A. MP-BGP is used for label distribution for VPN customer routes.
B. LDP is primarily used in internal networks of MPLS-VPN providers.
C. MP-BGP is used for label distribution in MPLS Traffic Engineered networks.

D. Directed LDP is used for label distribution in L2-VPN Attachement Circuits.

Correct Answer: C

QUESTION 20
Which two statements about OSPF IPv6 routing are true? (Choose two)

A. It requires OSPF version 3.
B. automatically detects neighbors over NHMA interfaces
C. It supports encryption using
D. It uses LSAtype9
E. It uses LSA type 8

Correct Answer: AE