**Vendor:**Juniper

**Exam Code:**JN0-649

**Exam Name:**Enterprise Routing and Switching Professional (JNCIP-ENT)

**Version:**Demo

**QUESTION 1**

You are deploying IP phones in your enterprise networks. When plugged in, the IP phones mustbe automatically provided with the correct VLAN ID needed for sending voice traffic to the EX Series switches.

In this scenario, which two solutions are required to accomplish this task? (Choose two.)

A. Enable LLDP-MED on appropriate access interfaces.

B. Create two VLANs and assign them as VLAN members to the appropriate access interfaces.

C. Enable the voice VLAN feature with the appropriate access interfaces and VLAN ID for voice traffic.

D. Use LLDP on appropriate interfaces.

Correct Answer: AC

---

**QUESTION 2**

Your EX Series switch has IP telephones and computers connected to a single switch port. You are considering implementing the voice VLAN feature to help with this setup. In this scenario, which two statements are correct? (Choose two.)

A. Thevoice VLAN feature must be used with LLDP-MED to associate VLAN ID and 802.1p values with the traffic.

B. The interfaces must be configured as access ports.

C. Assigning the incoming voice and data traffic to separate VLANs enables the ability to prioritize the traffic using CoS.

D. The voice VLAN feature will enable incoming tagged data and voice traffic to be associated with separate VLANs.

Correct Answer: BC

---

**QUESTION 3**

Referring to the exhibit, which two statements are correct? (Choose two.)

```
(master:0)[edit protocols mstp]
user@DS-1# show
configuration-name Region-1;
revision-level 1;
interface ge-0/0/8;
interface ge-0/0/9;
interface ge-0/0/10;
interface ge-0/0/12;
msti 1 (
     bridge-priority 4k;
     vlan 10-19;
}
msti 2 (
     bridge-priority 8k;
     vlan 20-29;
}
(master:0)[edit protocols mstp]
user@DS-2# show
configuration-name Region-1;
revision-level 1;
interface ge-0/0/8;
interface ge-0/0/9;
interface ge-0/0/10;
interface ge-0/0/12;
msti 1 (
     bridge-priority 8k;
     vlan 10-19;
}
```

A. The DS-2 switch will beroot bridge for MSTI 2.

B. The DS-1 switch will be root bridge for MSTI 1.

C. The DS-1 switch will be root bridge for MSTI 2.

D. The DS-2 switch will be root bridge for MSTI 1.

Correct Answer: CD

Bridge priority is to determine which bridge becomes the designated bridge.

---

**QUESTION 4**

You are asked to troubleshoot voice quality issues on your newly implement VoIP network. You notice that the voice packets are being dropped. You haveverified that the packets are correctly marked for expedited forwarding queue.

Referring to the exhibit, what must you configure to solve the problem?

```
[edit]
user@R1# show class-of-service
classifiers {
    dscp voip {
        import default;
    }
}
interfaces {
    ge-1/0/0 {
        unit 0 {
            classifiers {
                dscp voip;
            }
        }
    }
}
user@R1> show interfaces ge-1/0/0 extensive
Physical interface: ge-1/0/0, Enabled, Physical link is Up
  Interface index: 154, SNMP ifIndex: 527, Generation: 157
  Link-level type: Ethernet, MTU: 1514, MRU: 1522, LAN-PHY mode, Speed: 1000mbps, BPDU Error: None, Loop Detect PDU Error:
None,
  Ethernet-Switching Error: None, MAC-REWRITE Error: None, Loopback: Disabled, Source filtering: Disabled, Flow control:
Enabled,
  Auto-negotiation: Enabled, Remote fault: Online
  Pad to minimum frame size: Disabled
  Media type: Copper
  Device flags   : Present Running
  Interface flags: SNMP-Traps Internal: 0x4000

  Auto-negotiation: Enabled, Remote fault: Online
  Pad to minimum frame size: Disabled
  Media type: Copper
  Device flags   : Present Running
  Interface flags: SNMP-Traps Internal: 0x4000
  Link flags     : None
  CoS queues     : 8 supported, 8 maximum usable queues
  Schedulers     : 0
  Hold-times     : Up 0 ms, Down 0 ms
  Damping        : half-life: 0 sec, max-suppress: 0 sec, reuse: 0, suppress: 0, state: unsuppressed
  Current address: 4c:96:14:93:9a:95, Hardware address: 4c:96:14:93:9a:95
  Last flapped   : 2022-05-16 11:44:33 PDT (21:23:22 ago)
  Statistics last cleared: Never
  Traffic statistics:
   Input  bytes  :            894761                0 bps
   Output bytes  :            681004              240 bps
   Input  packets:             13083                0 pps
   Output packets:             11321                0 pps
  IPv6 transit statistics:
   Input  bytes  :                 0
   Output bytes  :                 0
   Input  packets:                 0
   Output packets:                 0
  Dropped traffic statistics due to STP State:
   Input  bytes  :                 0
   Output bytes  :                 0
   Input  packets:                 0
   Output packets:                 0
  Input errors:

   Errors: 0, Drops: 0, Framing errors: 0, Runts: 0, Policed discards: 0, L3 incompletes: 0, L2 channel errors: 0, L2
mismatch timeouts: 0,
   FIFO errors: 0, Resource errors: 0
  Output errors:
   Carrier transitions: 1, Errors: 0, Drops: 0, Collisions: 0, Aged packets: 0, FIFO errors: 0, HS link CRC errors: 0,
MTU errors: 0,
   Resource errors: 0
  Egress queues: 8 supported, 4 in use
  Queue counters:       Queued packets  Transmitted packets   Dropped packets
   0                       430544               8126               456123
   1                         4294               1654                 2817
   2                            0                  0                    0
   3                        11194              11194                    0
  Queue number:         Mapped forwarding classes
   0                     best-effort
   1                     expedited-forwarding
   2                     assured-forwarding
   3                     network-control
  Active alarms  : None
  Active defects : None
  PCS statistics                    Seconds
   Bit errors                          0
   Errored blocks                      0
  Ethernet FEC statistics           Errors
   FEC Corrected Errors                0
```

```
   FEC Uncorrected Errors                      0
   FEC Corrected Errors Rate                   0
   FEC Uncorrected Errors Rate                 0
 MAC statistics:                        Receive         Transmit
   Total octets                         947941           752356
   Total packets                         13084            11320
   Unicast packets                          92               93
   Broadcast packets                        37               34
   Multicast packets                     12955            11193
   CRC/Align errors                          0                0
   FIFO errors                               0                0
   MAC control frames                        0                0
   MAC pause frames                          0                0
   Oversized frames                          0
   Jabber frames                             0
   Fragment frames                           0
   VLAN tagged frames                        0
   Code violations                           0
   Total errors                              0                0
 Filter statistics:
   Input packet count                    13083
   Input packet rejects                      0
   Input DA rejects                          0
   Input SA rejects                          0
   Output packet count                                    11320
   Output packet pad count                                    0
   Output packet error count                                  0
   CAM destination filters: 0, CAM source filters: 0
 Autonegotiation information:

   Fragment frames                           0
   VLAN tagged frames                        0
   Code violations                           0
   Total errors                              0                0
 Filter statistics:
   Input packet count                    13083
   Input packet rejects                      0
   Input DA rejects                          0
   Input SA rejects                          0
   Output packet count                                    11320
   Output packet pad count                                    0
   Output packet error count                                  0
   CAM destination filters: 0, CAM source filters: 0
 Autonegotiation information:
   Negotiation status: Complete
   Link partner:
       Link mode: Full-duplex, Flow control: Symmetric/Asymmetric, Remote fault: OK
   Local resolution:
       Flow control: Symmetric, Remote fault: Link OK
 Packet Forwarding Engine configuration:
   Destination slot: 0 (0x00)
 CoS information:
   Direction : Output
   CoS transmit queue          Bandwidth            Buffer Priority   Limit
                        %        bps      %          usec
   0 best-effort       95    950000000   95             0    low      none
   3 network-control    5     50000000    5             0    low      none
 Interface transmit statistics: Disabled
```
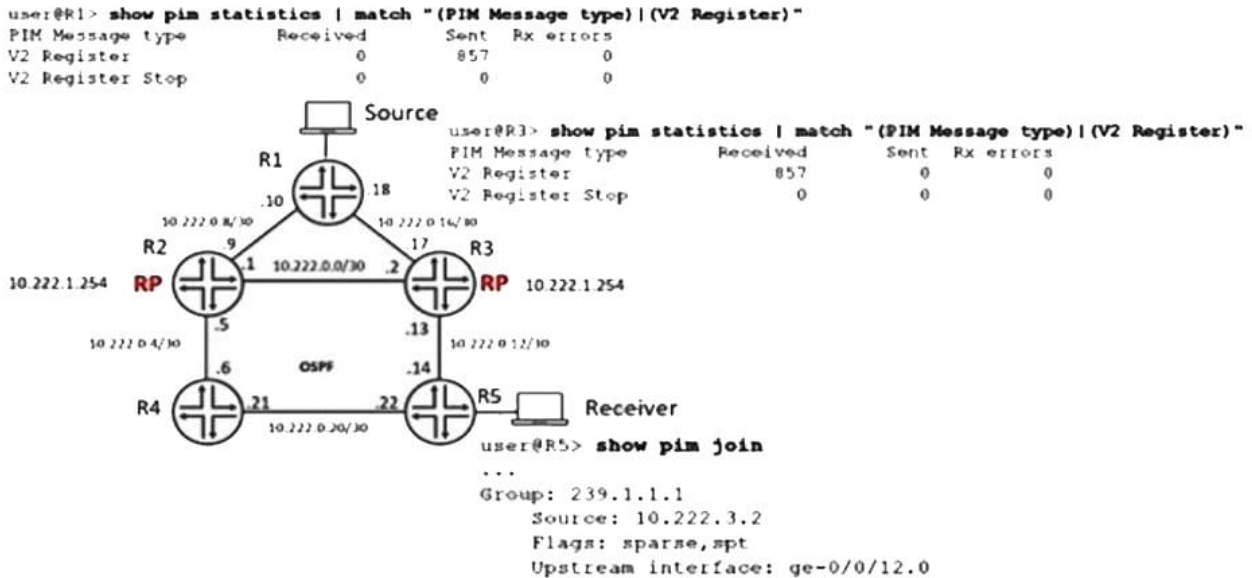
A. You must configure a multifield classifier to put the VoIP traffic in the correctqueue.

B. You must configure a rewrite rule to ensure that the traffic is scheduled properly in the device.

C. You must configure a scheduler to allocate bandwidth to the expedited forwarding queue.

D. You must configure a policer to ensure that the queueis not being starved.

Correct Answer: C

**QUESTION 5**

Referring to the exhibit, anycast RP is implemented to ensure multicast service availability. The source is currently sending multicast traffic using group 239.1.1.1 and R3 is receiving PIM register messages, but R2 does not have active source information.

In this scenario, what are two methods to receive the active source information on R2? (Choose two.)

```
user@R1> show pim statistics | match "(PIM Message type)|(V2 Register)"
PIM Message type          Received          Sent  Rx errors
V2 Register                      0            857          0
V2 Register Stop                 0              0          0
                                             user@R3> show pim statistics | match "(PIM Message type)|(V2 Register)"
                 Source                      PIM Message type          Received          Sent  Rx errors
           R1                                V2 Register                    857             0          0
          ┌──┐    .18                        V2 Register Stop                 0             0          0
       .10│╋╋│
   10.222.0.8/30      10.222.0.16/30
    R2       .9    17      R3
   ┌──┐    .1  10.222.0.0/30  .2 ┌──┐
10.222.1.254 RP│╋╋│──────────────│╋╋│RP  10.222.1.254
   └──┘ .5                    .13 └──┘
   10.222.0.4/30                 10.222.0.12/30
       .6    OSPF        .14
    R4  ┌──┐ .21    .22 ┌──┐ R5
       │╋╋│──────────│╋╋│      Receiver
       └──┘ 10.222.0.20/30 └──┘
                            user@R5> show pim join
                            ...
                            Group: 239.1.1.1
                               Source: 10.222.3.2
                               Flags: sparse,spt
                               Upstream interface: ge-0/0/12.0
```

A. Configure an RP set in PIM on R1, allowing R1 to forward PIM register messages to R2 and R3 in the set.

B. Configure an MSDP protocol between R2 andR3.

C. Configure an RP set in PIM on R2 and R3, allowing the RPs to forward PIM register messages to the other RPs in the set.

D. Configure an MSDP protocol between R1 and R2.

Correct Answer: AC

https://www.juniper.net/documentation/us/en/software/junos/multicast/topics/ref/statement/rp-set-edit-protocols-pim.html

---

**QUESTION 6**

You are running OSPF as your IGP. The interfaces connecting two routers are in the ExStart state. You notice that something is incorrect with the configuration. Referring to the exhibit, which statement is correct?

```
user@R2> show ospf neighbor
Address            Interface              State              ID                 Pri  Dead
10.0.0.2           ge-0/0/2.0             ExStart            192.168.1.1        128   36
10.0.0.10          ge-0/0/3.0             Full               192.168.1.3        128   38
user@R2> show ospf interface ge-0/0/2.0 detail
Interface            State   Area          DR ID           BDR ID          Nbrs
ge-0/0/2.0           DR      0.0.0.0       192.168.1.2     192.168.1.1       1
  Type: LAN, Address: 10.0.0.1, Mask: 255.255.255.252, MTU: 1500, Cost: 1
  DR addr: 10.0.0.1, BDR addr: 10.0.0.2, Priority: 128
  Adj count: 0
  Hello: 10, Dead: 40, ReXmit: 5, Not Stub
  Auth type: None
  Protection type: None
  Topology default (ID 0) -> Cost: 1
user@R1> show ospf interface ge-0/0/2.0 detail
Interface            State   Area          DR ID           BDR ID          Nbrs
ge-0/0/2.0           BDR     0.0.0.0       192.168.1.2     192.168.1.1       1
  Type: LAN, Address: 10.0.0.2, Mask: 255.255.255.252, MTU: 9164, Cost: 1
  DR addr: 10.0.0.1, BDR addr: 10.0.0.2, Priority: 128
  Adj count: 0
  Hello: 10, Dead: 40, ReXmit: 5, Not Stub
  Auth type: None
  Protection type: None
  Topology default (ID 0) -> Cost: 1
```

A. The subnet mask is incorrect.

B. The MTU setting are incorrect.

C. The interface type is incorrect.

D. The IP addresses are incorrect.

Correct Answer: B

---

**QUESTION 7**

Referring to the exhibit, which statement is correct when a failure exists on the link between host2 and switch5 on this EVPN-VXLAN fabric?

## EVPN-VXLAN Fabric
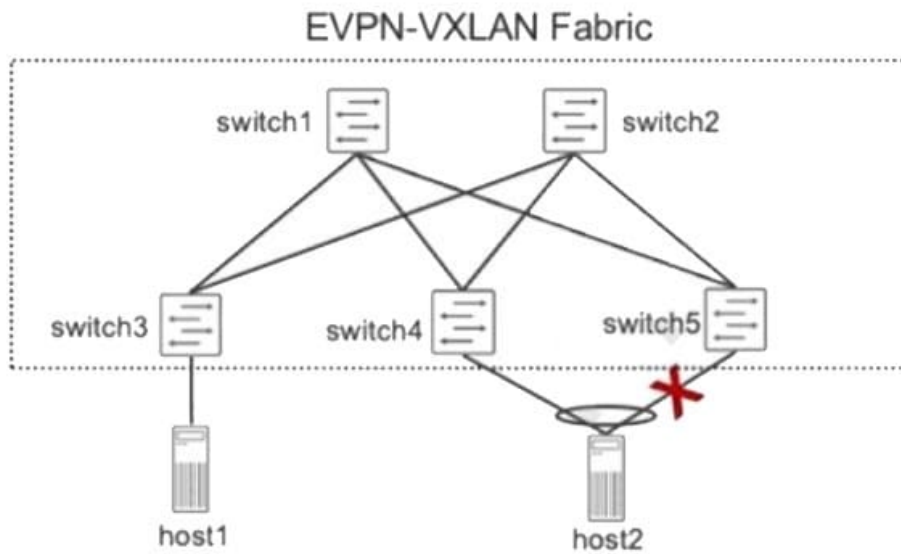


A. The switch5 device will send a Type 2route to all peers.

B. The switch5 device will send a Type 4 route to all peers.

C. The switch5 device will send a Type 1 route to all peers.

D. The switch5 device will send a Type 3 route to all peers.

Correct Answer: D

---

**QUESTION 8**

The connection between DC1 and DC2 is routed as shown in the exhibit. In this scenario, which statement is correct?
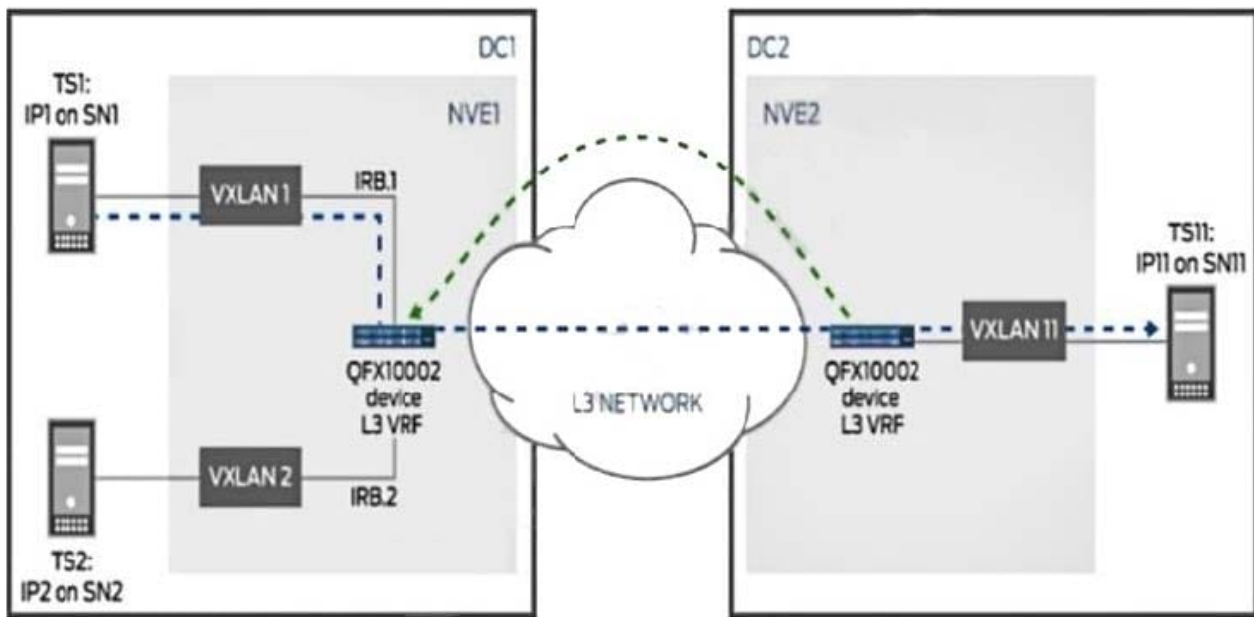
A. The border devices must be able to perform Layer 3 routing and provide IRB functionality.

B. L3VPN must be enabled to advertise reachability.

C. An IP prefix route provides encoding for intra-subnet forwarding.

D. Type 2 and Type 5 routes will be exchanged between DC1 and DC2.

Correct Answer: A

https://www.juniper.net/documentation/us/en/software/junos/evpn-vxlan/topics/concept/evpn-route-type5-understanding.html

---

**QUESTION 9**

You are asked to establish interface level authentication for users connecting to your network. You must ensure that only corporate devices, identified by MAC addresses, are allowed to connect and authenticate. Authentication must be handled by a centralized server to increase scalability.

Which authentication method would satisfy this requirement?

A. MAC RADIUS

B. captive portal

C. 802.1X with single-secure supplicant mode

D. 802.1X with multiple supplicant mode

Correct Answer: A

https://www.juniper.net/documentation/us/en/software/junos/user-access/topics/topic-map/mac-radius-authentication-switching-devices.html

You can configure MAC RADIUS authentication on an interface that also allows 802.1X authentication, or you can configure either authentication method alone.

If both MAC RADIUS and 802.1X authentication are enabled on the interface, the switch first sends the host three EAPoL requests to the host. If there is no response from the host, the switch sends the host\\'s MAC address to the RADIUS server to check whether it is a permitted MAC address. If the MAC address is configured as permitted on the RADIUS server, the RADIUS server sends a message to the switch that the MAC address is a permitted address, and the switch opens LAN access to the nonresponsive host on the interface to which it is connected.

---

**QUESTION 10**

Referring to the exhibit, ServerA sends a single IP packet destined to 10.0.0.127.

Which two statements correctly describe the behavior of the resulting outbound VXLAN packets that contain the original packet destined to 10.0.0.127? (Choosetwo.)
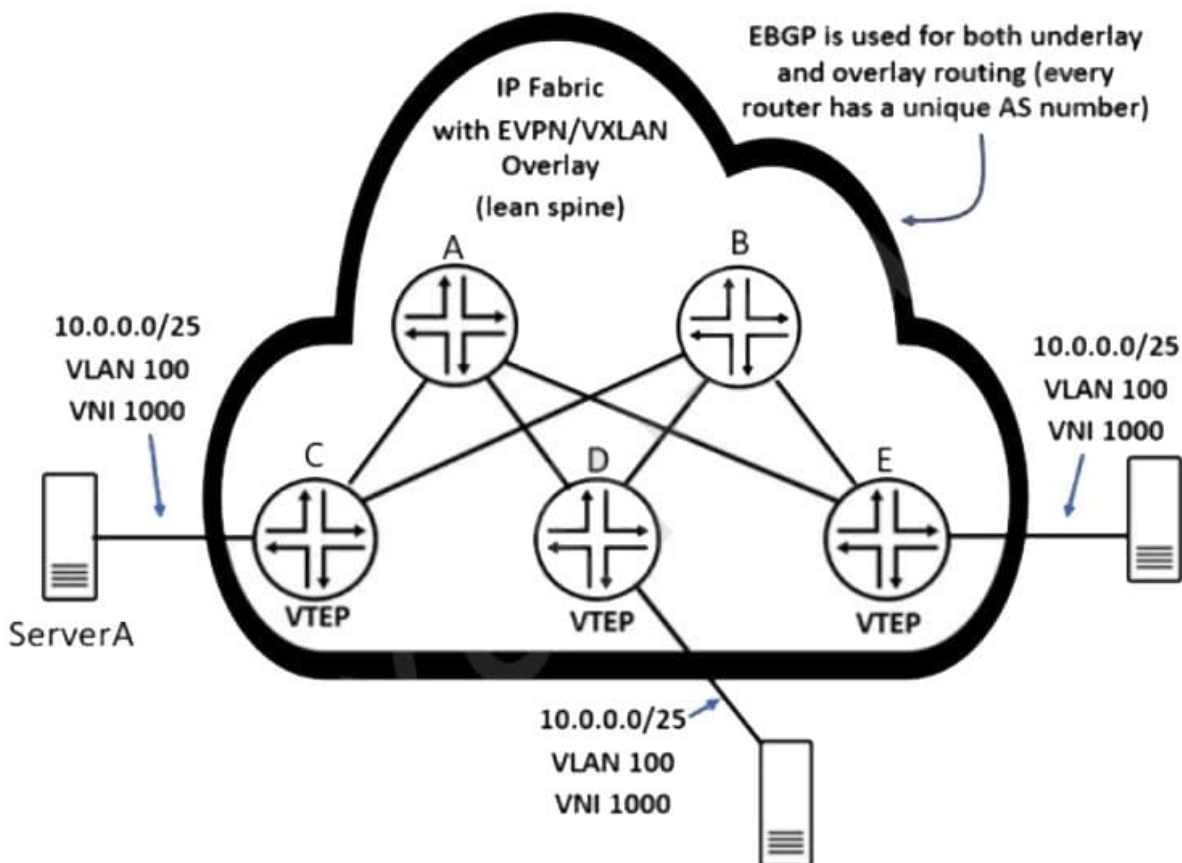


A. Router E will replicate and send a copy of the received VXLAN packet to router D.

B. Router C will send a VXLAN packet destined only to router D and router E.

C. Router D will not replicate and send a copy of the received VXLAN packet to routerE.

D. Router C will send a single VXLAN packet to one remote VTEP.

Correct Answer: AD

**QUESTION 11**

Referring to the outputs shown in the exhibit, which two statements are correct about the IS-IS adjacency? (Choose two.)

```
user@R1> show isis adjacency extensive
R2
  Interface: ge-1/0/0.0, Level: 2, State: Up, Expires in 7 secs
  Priority: 64, Up/Down transitions: 1, Last transition: 00:02:19 ago
  Circuit type: 2, Speaks: IP, IPv6, MAC address: 4c:96:14:93:9a:96
  Topologies: Unicast
  Restart capable: Yes, Adjacency advertisement: Advertise
  LAN id: R2.02, IP addresses: 10.1.1.2
  Transition log:
  When                    State         Event          Down reason
  Mon May 16 11:53:33     Up            Seenself
user@R2>  show isis adjacency extensive
R1
  Interface: ge-1/0/1.0, Level: 2, State: Up, Expires in 20 secs
  Priority: 64, Up/Down transitions: 1, Last transition: 00:01:55 ago
  Circuit type: 3, Speaks: IP, IPv6, MAC address: 4c:96:14:93:9a:95
  Topologies: Unicast
  Restart capable: No, Adjacency advertisement: Advertise
  LAN id: R2.02, IP addresses: 10.1.1.1
  Transition log:
  When                    State         Event          Down reason
  Mon May 16 11:53:33     Up            Seenself
```
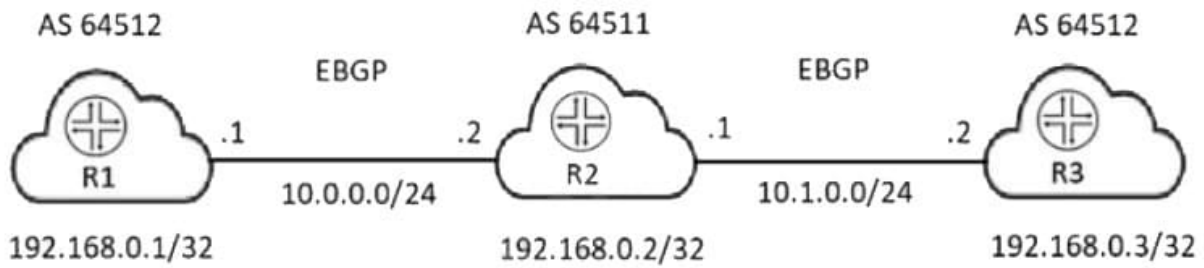
A. R1 is configured to participate in bothLevel 1 and Level 2.

B. R2 is configured to participate in both Level 1 and Level 2.

C. R1 is configured to participate in Level 2 only.

D. R2 is configured to participate in Level 2 only.

Correct Answer: AD

---

**QUESTION 12**

You are asked to establish full connectivity between all devices in the BGP network.

Referring to the exhibit, which two configuration changes will allow BGP route advertisements? (Choose two.)

AS 64512 — EBGP — AS 64511 — EBGP — AS 64512

R1 .1 — 10.0.0.0/24 — .2 R2 .1 — 10.1.0.0/24 — .2 R3

192.168.0.1/32     192.168.0.2/32     192.168.0.3/32

A. OnR2, include the loops 2 statement at the [edit protocols bgp family inet unicast] hierarchy.

B. On R1 and R3, include the loops 2 statement at the [edit protocols bgp family inet unicast] hierarchy.

C. On R1 and R3, include the advertise-peer-as statementat the [edit protocols bgp group external] hierarchy.

D. On R2, include the advertise-peer-as statement at the [edit protocols bgp group external] hierarchy.

Correct Answer: BD

https://www.juniper.net/documentation/us/en/software/junos/bgp/topics/ref/statement/advert ise-peer-as-edit-protocols-bgp.html