

**Cisco 642-892**

**CISCO 642-892 Composite Exam**  
**Practice Test**  
Version 2.3

**QUESTION NO: 1**

Which two statements are true about IBGP neighbor relationships? (Choose two.)

- A. The BGP split-horizon rule specifies that routes learned via EBGp are never propagated to other IBGP peers.
- B. A full-mesh IBGP requires that neighbor relationships be established between all BGP enabled routers in the autonomous system.
- C. The BGP split horizon rule specifies that routes learned via IBGP are never propagated to other IBGP peers.
- D. An EGP or static routing is required between IBGP neighbors.
- E. IBGP neighbors must be in different autonomous systems.

**Answer: B,C**

**QUESTION NO: 2**

Which three IP multicast group concepts are true? (Choose three.)

- A. If a packet is sent to a multicast group address, all members of the multicast group will receive it.
- B. A router must be a member of a multicast group to send to the group.
- C. If a packet is sent to a multicast group address, the multicast frame contains the source multicast address.
- D. A router must be a member of a multicast group to receive multicast data.
- E. A router does not have to be a member of a multicast group to send to the group.

**Answer: A,D,E**

**QUESTION NO: 3**

Which two features or capabilities are valid options for both an Autonomous and a Lightweight WLAN solution? (Choose two)

- A. use of Cisco Secure Access Control Server (ACS) for security
- B. Cisco IOS software for configuration
- C. PoE capability
- D. use of a Cisco Wireless Location Appliance for location tracking
- E. Cisco Wireless Control System (WCS) for management

**Answer: A,C**

**Explanation:**

Cisco Aironet access points provide secure manageable, high-performance, and reliable connectivity with exceptional range and performance. Lightweight access points operate in conjunction with Cisco wireless LAN controllers and the Wireless Control System (WCS). Standalone (autonomous) access points are managed by CiscoWorks Wireless LAN Solution Engine (WLSE) or CiscoWorks WLSE Express

**Cisco Aironet Access Points**

When originally deployed, the Cisco Aironet 350 Series Access Point was selected as the standard access point for both autonomous and lightweight solutions. The Cisco Aironet 350 Series was the most advanced, fully featured wireless access point available. It supported the 802.11b protocol standard (the most advanced at that time), which provides data rates of up to 11 Mbps. The Cisco Aironet 350 Series also supported inline Power over Ethernet (PoE), which greatly simplifies installation and reduces costs by eliminating the need for separate, dedicated power cabling to the main supply.

**Cisco Secure Access Control Server ( ACS)**

The Cisco Secure ACS is used as the standard AAA server for the global WLAN and for other recently introduced services such as 802.1x-based port authentication for wired Ethernet ports in public areas and Network Access Control (NAC), part of the Cisco Self-Defending Network security strategy. Pairs of Cisco Secure ACSs were deployed at strategic locations worldwide. The value of using a globally distributed AAA architecture instead of a single AAA server was highlighted by the WLAN deployment. Because of the greater load that a WLAN creates for AAA, due to authentications and reauthentications (as the client device roams from AP to AP), it was important to ensure that all users did not have to rely upon a single, centralized server. This would have introduced unacceptable delays for users in geographically remote areas. As such, at 13 different locations around the world, Cisco placed two ACS servers, in a load-balanced configuration, that served as AAA servers for that local geographical region.

The ACS servers are fully integrated with the Cisco Active Directory domain structure, enabling a single sign-on (SSO) capability. Effectively, AD user credentials are used not only for access to their laptops and wired network but also to provide transparent authentication to the wireless network. SSO has greatly reduced the client impact for users and has helped ensure a common, user-friendly experience across platforms and transport media. Users need only remember their normal ID and password for access to their laptop, the wired network, and the wireless network, and they only have to enter their credentials once each session regardless of the transport medium they are using.

Reference: <http://www.wireless-center.net/Business-Wireless/Technology-Considerations.html>

**QUESTION NO: 4**

Which statement is true concerning 6to4 tunneling?

- A. IPv4 traffic is encapsulated with an IPv6 header.
- B. The edge routers can use any locally configured IPv6 address.
- C. An edge router must use IPv6 address of 2002::/16 in its prefix.
- D. Hosts and routers inside a 6to4 site will need a special code.

**Answer: C**

**Explanation:**

A 6to4 tunnel is an automatic IPv6 tunnel where a 6to4 border router in an isolated IPv6 network creates a tunnel to a 6to4 border router in another isolated IPv6 network over an IPv4 infrastructure. The tunnel destination is determined by the globally unique, 32-bit IPv4 address of the remote 6to4 border router that is concatenated to the prefix 2002::/16. 6to4 tunnels are configured between 6to4 border routers or between 6to4 border routers and hosts.

A 6to4 relay service is a 6to4 border router that offers traffic forwarding to the IPv6 Internet for remote 6to4 border routers. A 6to4 relay forwards packets that have a 2002::/16 source prefix.

Reference: IPv6: Providing IPv6 Services over an IPv4 Backbone Using Tunnels

[http://www.cisco.com/en/US/docs/ios/solutions\\_docs/ipv6/v6sertun.html](http://www.cisco.com/en/US/docs/ios/solutions_docs/ipv6/v6sertun.html)

**QUESTION NO: 5**

Which two statements about WLAN components are true? (Choose two.)

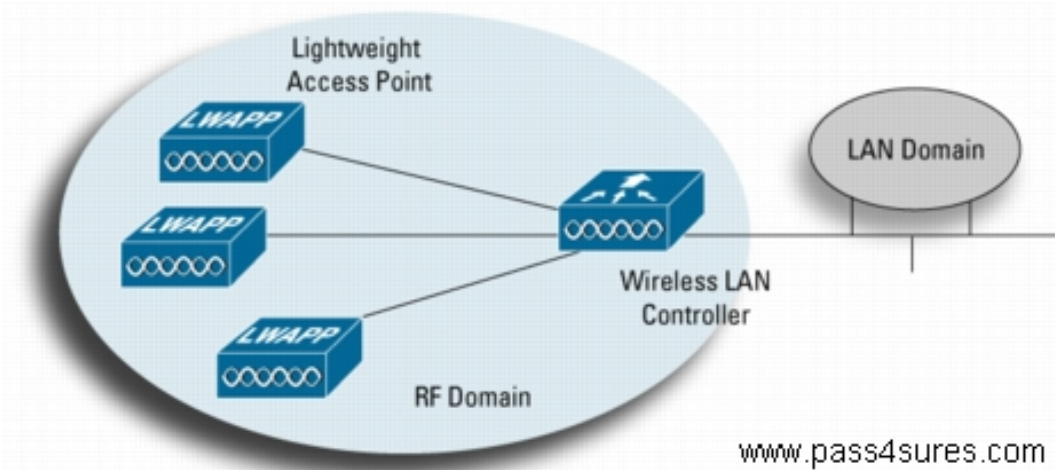
- A. In the lightweight access point solution, WLAN management is provided by the WLAN Solution Engine (WLSE).
- B. In the autonomous access point solution, control is provided by the WLAN controller.
- C. Cisco Aironet lightweight access points cannot be supported by the Cisco Unified Wireless Network.
- D. In the autonomous access point solution, control is provided by the Wireless Domain Services (WDS).
- E. In the lightweight access point solution, WLAN management is provided by the WLAN Control System (WCS).
- F. Cisco Aironet autonomous access points cannot be supported by the Cisco Unified Wireless Network.

**Answer: D,E**

**Explanation:**

Part 1 Answer:

There is a trend in the WLAN space toward centralized intelligence and control. In this new architecture, aWLAN controller system is used to create and enforce policies across many different lightweight access points.



As more vendors migrate to a hierarchical design, and as larger networks are built using lightweight access points, there is a need for a standardized protocol that governs how lightweight access points communicate with WLAN systems. This is the role of the Internet Engineering Task Force's (IETF's) latest draft specification, Lightweight Access Point Protocol (LWAPP). With LWAPP, large multivendor wireless networks can be deployed with maximum capabilities and increased flexibility.

Part 2 Answer:

Q. Is Cisco SWAN WDS required for RF management when the Cisco SWAN autonomous access point solution is used?

A. Yes. A WDS device is required for the Cisco SWAN autonomous access-point solution. For deployments that use access-point-based WDS, at least one Cisco SWAN WDS access point per subnet is required for RF management of that subnet. For deployments that use the switch-based WDS on the Cisco Catalyst 6500 Series WLSM, up to 300 access points per device across subnets can be supported by a single Cisco Catalyst 6500 Series WLSM.

References:

[www.cisco.com/en/US/prod/collateral/wireless/ps5678/ps6306/prod\\_white\\_paper0900aecd802c18ee\\_ns337\\_Networking\\_Solutions\\_White\\_Paper.html](http://www.cisco.com/en/US/prod/collateral/wireless/ps5678/ps6306/prod_white_paper0900aecd802c18ee_ns337_Networking_Solutions_White_Paper.html)

[www.cisco.com/en/US/prod/collateral/netmgmtsw/ps6380/ps6563/ps3915/prod\\_qas0900aecd80278d08.html](http://www.cisco.com/en/US/prod/collateral/netmgmtsw/ps6380/ps6563/ps3915/prod_qas0900aecd80278d08.html)

## QUESTION NO: 6

Refer to the exhibit. Which statement is true?

```
Router(config)# vlan access-map pass 10
Router(config-access-map)# match ip address ABC
Router(config-access-map)# action forward
Router(config)# vlan filter pass vlan-list 5-10
```

- A. IP traffic matching access list ABC is forwarded through VLANs 5-10.
- B. All VLAN traffic matching VLAN list 5-10 will be forwarded, and all traffic matching access list ABC is dropped.
- C. All VLAN traffic in VLANs 5-10 that match access list ABC will be forwarded, and all else will be dropped.
- D. IP traffic matching VLAN list 5-10 will be forwarded, and all other traffic will be dropped.

**Answer: C**

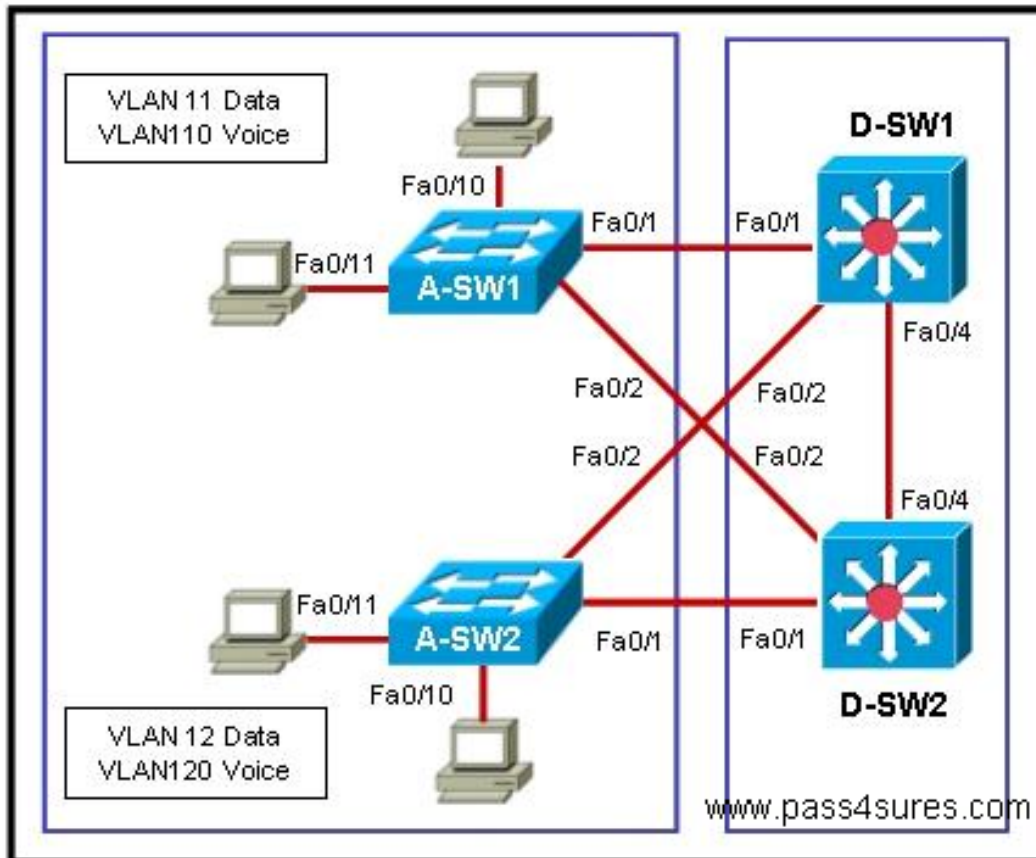
**Explanation:**

VLAN maps, also known as VLAN ACLs or VACLs, can filter all traffic traversing a switch. VLAN maps can be configured on the switch to filter all packets that are routed into or out of a VLAN, or are bridged within a VLAN. VLAN maps are used strictly for security packet filtering. Unlike router ACLs, VLAN maps are not defined by direction (input or output).

To create a VLAN map and apply it to one or more VLANs, perform these steps: Create the standard or extended IP ACLs or named MAC extended ACLs to be applied to the VLAN. This access-list will select the traffic that will be either forwarded or dropped by the access-map. Only traffic matching the 'permit' condition in an access-list will be passed to the access-map for further processing. Enter the `vlan access-map access-map-name [ sequence ]` global configuration command to create a VLAN ACL map entry. Each access-map can have multiple entries. The order of these entries is determined by the sequence . If no sequence number is entered, access-map entries are added with sequence numbers in increments of 10. In access map configuration mode, optionally enter an action `forward` or `drop` . The default is to forward traffic. Also enter the `match` command to specify an IP packet or a non-IP packet (with only a known MAC address), and to match the packet against one or more ACLs (standard or extended). Use the `vlan filter access-map-name vlan-list vlan-list` global configuration command to apply a VLAN map to one or more VLANs. A single access-map can be used on multiple VLANs.

**QUESTION NO: 7**

Refer to the exhibit. On the basis of the information provided in the exhibit, which two sets of procedures are best practices for Layer 2 and 3 failover alignment? (Choose two.)



- A. Configure the D-SW1 switch as the active HSRP router and the backup STP root for VLANs 11 and 110. Configure the D-SW2 switch as the active HSRP router and the backup STP root for VLANs 12 and 120.
- B. Configure the D-SW2 switch as the active HSRP router and the STP root for all VLANs. Configure the D-SW1 switch as the standby HSRP router and backup STP root for all VLANs.
- C. Configure the D-SW1 switch as the standby HSRP router and the backup STP root for VLANs 12 and 120. Configure the D-SW2 switch as the standby HSRP router and the backup STP root for VLANs 11 and 110.
- D. Configure the D-SW1 switch as the standby HSRP router and the STP root for VLANs 11 and 110. Configure the D-SW2 switch as the standby HSRP router and the STP root for VLANs 12 and 120.
- E. Configure the D-SW1 switch as the active HSRP router and the STP root for all VLANs. Configure the D-SW2 switch as the standby HSRP router and backup STP root for all VLANs.
- F. Configure the D-SW1 switch as the active HSRP router and the STP root for VLANs 11 and 110. Configure the D-SW2 switch as the active HSRP router and the STP root for VLANs 12 and 120.

**Answer: C,F**

### Explanation:

Basically, each of the routers that provides redundancy for a given gateway address is assigned to a common HSRP group. One router is elected as the primary, or active, HSRP router, another is elected as the standby HSRP router, and all the others remain in the listen HSRP state. The routers exchange HSRP hello messages at regular intervals, so they can remain aware of each



other's existence, as well as that of the active router.

HSRP election is based on a priority value (0 to 255) that is configured on each router in the group. By default, the priority is 100. The router with the highest priority value (255 is highest) becomes the active router for the group. If all router priorities are equal or set to the default value, the router with the highest IP address on the HSRP interface becomes the active router. To set the priority, use the following interface configuration command:

```
Switch(config-if)# standby group priority priority
```

When HSRP is configured on an interface, the router progresses through a series of states before becoming active. This forces a router to listen for others in a group and see where it fits into the pecking order. The HSRP state sequence is Disabled, Init, Listen, Speak, Standby, and, finally, Active.

You can configure a router to preempt or immediately take over the active role if its priority is the highest at any time. Use the following interface configuration command to allow preemption:

```
Switch(config-if)# standby group preempt [delay seconds]
```

#### QUESTION NO: 8

A router is running BGP and receives more than one route for a particular prefix. Assume all the routes for this prefix have the same attributes. Which three path features would be reasons for the router to ignore some of the routes and not consider them as candidates for the best path? (Choose three.)

- A. paths for which the NEXT\_HOP is inaccessible
- B. paths that are marked as not synchronized in the show ip bgp output
- C. paths for which the NEXT\_HOP is accessible
- D. paths from an internal BGP (iBGP) neighbor if the local autonomous system (AS) appears in the AS\_PATH
- E. paths from an external BGP (eBGP) neighbor if the local autonomous system (AS) appears in the AS\_PATH
- F. paths that are marked as synchronized in the show ip bgp output

**Answer: A,B,E**

#### QUESTION NO: 9 DRAG DROP

Drop



Place the DTP mode with its correct description.

Trunk
Nonegotiate
Access
Dynamic Auto
Dynamic Desirable

specifies that DTP packets are not sent out this interface
sets the switch port to trunk mode and negotiates to become a trunk
sets a switch port to permanent nontrunking mode
sets the switch port to respond, but not actively send DTP frames
makes the interface actively attempt to convert the link to a trunk link

www.pass4sures.com

**Answer:**

Place the DTP mode with its correct description.

Trunk
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Nonegotiate
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www.pass4sures.com

### QUESTION NO: 10

What are the two reasons for the appearance of 0.0.0.0 as the next hop for a network in the show ip bgp command output? (Choose two.)

- A. The network was learned via EBGp.
- B. The network was learned via IBGP.
- C. The network was originated via a network or aggregate command.
- D. The network was originated via redistribution of an interior gateway protocol into BGP.
- E. The network was defined by a static route.

**Answer: C,D**

### QUESTION NO: 11

A Cisco Aironet Wireless LAN Adapter CB21AG is inserted into a PC cardbus slot. Both the green status LED and the amber activity LED are blinking slowly. What is the condition of the adapter?

- A. The adapter is not receiving power.
- B. The adapter is in power save mode.
- C. The adapter is scanning for the wireless network for which it is configured.
- D. The adapter is transmitting or receiving data while associated to an access point or another client.
- E. The adapter is associated to an access point or another client.

**Answer: E**

**Explanation:**

The client adapter shows messages through its two LEDs.

Table, LED Operating Messages		
Status LED (green)	Activity LED (amber)	Condition
Off	Off	Client adapter is not receiving power.
Blinking slowly	Off	Client adapter is in power save mode.
On	Off	Client adapter has awakened from power save mode.
Alternating blink:		Client adapter is scanning for the wireless network for which it is configured.
On	Off	
Off	On	
Blinking slowly	Blinking slowly	Client adapter is associated to an access point (in infrastructure mode) or another client (in ad hoc mode).
Blinking quickly	Blinking quickly	Client adapter is transmitting or receiving data while associated to an access point (in infrastructure mode) or another client (in ad hoc mode). www.pass4sures.com

Reference:

[http://www.cisco.com/en/US/products/hw/wireless/ps4555/products\\_installation\\_and\\_configuration\\_guide\\_chapter09186a00801f0d77.html](http://www.cisco.com/en/US/products/hw/wireless/ps4555/products_installation_and_configuration_guide_chapter09186a00801f0d77.html)

**QUESTION NO: 12**

Refer to the exhibit. On the basis of the information displayed in the exhibit, which statement is true?

```

1230AG# configure terminal
1230AG(config)# configure interface dot11radio 0
1230AG(config-if)# ssid batman
1230AG(config-ssid)# authentication open mac adam alternate eap adam
1230AG(config-ssid)# end
  
```

- A. Wireless clients will first attempt to authenticate with MAC authentication and if this fails, EAP authentication will be attempted.
- B. Wireless clients will attempt EAP authentication first, then MAC authentication.