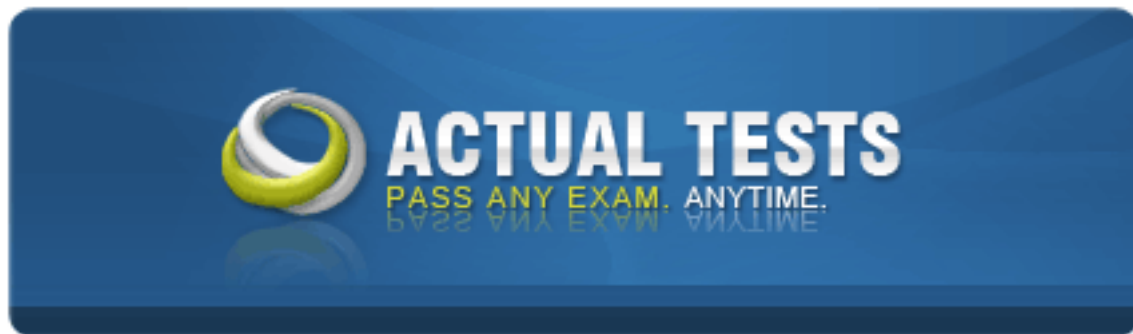


**Cisco 640-721**



**640-721 Implementing Cisco Unified Wireless  
Networking Essentials (IUWNE)**

**Practice Test**

**Version 2.0**

**QUESTION NO: 1**

What is fading?

- A. Another signal source is producing energy on the channel in which you are trying to operate.
- B. The desired signal reaches the receiving antenna via multiple paths, each of which has a different propagation delay and path loss.
- C. A time-varying change in the path loss of a link with the time variance governed by the movement of objects in the environment, including the transmitter and receiver themselves.
- D. A function of the frequency and should be provided in the cable specification by the vendor.
- E. The minimum signal level for the receiver to be able to acceptably decode the information.
- F. The time delay from the reception of the first instance of the signal until the last instance.

**Answer: C**

**QUESTION NO: 2**

Which limitation applies to the use of the Cisco WLAN Solution Management over Wireless feature?

- A. Controllers must be managed using only secure protocols (that is, SSH and HTTPS), not nonsecure protocols (that is, HTTP and Telnet).
- B. Read-write access is not available; only read-only access is supported.
- C. Uploads and downloads from the controller are not allowed.
- D. Wireless clients can manage other controllers however not the same controller and AP to which the client is associated.

**Answer: C**

**QUESTION NO: 3**

Up to how many Cisco WiSMs are supported in a single mobility group operating under v5.0 code?

- A. 5
- B. 12
- C. 16
- D. 24
- E. 150
- F. 300

**Answer: B**

**QUESTION NO: 4**

The existing Cisco Unified Wireless Controller is running v5.0 code for both the controllers and the Cisco WCS. A controller has been configured with an appropriate rogue rule condition to report discovered APs to the Cisco WCS. What default alarm level is used to display all rogue APs in the Alarm Summary?

- A. Critical
- B. Flash
- C. Major
- D. Minor
- E. Urgent

**Answer: D**

**QUESTION NO: 5**

Cisco Client Management Frame Protection is running on a mobility group with two controllers. Which two MFP requirements protect the network? (Choose two.)

- A. forces clients to authenticate, using a secure EAP method only
- B. implements the validation of wireless management frames
- C. requires CCXv5
- D. requires the use of anonbroadcast SSID
- E. requires CCXv4

**Answer: B,C**

**QUESTION NO: 6**

What is the result when client exclusion is enabled with a timeout value of zero?

- A. Clients are excluded indefinitely.
- B. Clients are never excluded.
- C. Client exclusion is disabled.
- D. Clients must be explicitly included by specifying the MAC address.
- E. Exclusion and inclusion is determined by access list.

**Answer: A**

**QUESTION NO: 7**

The central office is currently using a combination of 4400 and 2100 series WLAN controllers running v4.2 and a variety of LWAPP-enabled access points servicing both 2.4 GHz and 5 GHz. The WLAN deployment has been extended to each remote office by implementing a 526 WLAN controller running v4.1 and several 521 access points. Wireless client deployment uses EAP-TLS authentication using a centralized RADIUS server plus 802.11n for performance. After the first remote office deployment, remote office users complain that they are not connecting via 802.11n.

What is the most likely cause of this problem?

- A. The 526 WLAN controller does not support external authentication via RADIUS, prohibiting authentication.
- B. The 521 AP does not support 5 GHz, which prohibits 802.11n.
- C. The 521 AP and 526 WLAN controllers do not support AES, which prohibits 802.11n.
- D. The 526 WLAN controller does not support 802.11n with v4.1 and must be upgraded to v4.2.
- E. The 526 WLAN controller does not support 802.11n with either v4.1 or v4.2.

**Answer: E**

**QUESTION NO: 8**

How do the features that are available on the Cisco WCS for Linux version differ from those of the Cisco WCS for Windows version?

- A. Assuming that there are no differences in hardware, a Cisco WCS for Linux can support up to 750 wireless LAN controllers. A Cisco WCS for Windows can support up to 250 wireless LAN controllers.
- B. Cisco WCS for Windows includes support for Cisco Spectrum Expert clients. Cisco WCS for Linux does not support Cisco Spectrum Expert clients.
- C. Cisco WCS for Linux is required for deployments.
- D. There are no differences in features between the Linux and Windows versions of Cisco WCS.

**Answer: D**

**QUESTION NO: 9**

Which CLI command shows the controller configuration in a way that is similar to the way that it is displayed on Cisco IOS routers?

- A. showconfig
- B. show runconfig

- C. show run-config
- D. show runningconfig
- E. show running-config

**Answer: E**

**QUESTION NO: 10**

Which two attacks does Management Frame Protection help to mitigate? (Choose two.)

- A. Eavesdropping
- B. Denial of Service
- C. War Driving
- D. Man-in-the-Middle

**Answer: B,D**

**QUESTION NO: 11**

Lightweight access points send control traffic to which device(s)?

- A. Other access points.
- B. The Wireless Control System.
- C. The Wireless Controller.
- D. Lightweight access points don't send control traffic.

**Answer: C**

**QUESTION NO: 12**

Which three elements define the 802.11n implementation of MIMO? (Choose three.)

- A. Channel Bonding
- B. Dynamic Frequency Selection
- C. Maximal Ratio Combining
- D. Packet Aggregation
- E. Spatial Multiplexing
- F. Transmit Beam Forming

**Answer: C,E,F**

**QUESTION NO: 13**

In the AP Layer 3 controller discovery process, after the LWAPP Discovery Request is broadcast on a local subnet, what is the next step that the AP takes?

- A. Determine whether the controller responses are the primary controller.
- B. Send an LWAPP discovery request to controllers learned via OTAP if operational.
- C. Send an LWAPP response to the master controller if known.
- D. Wait 5 seconds and resend a Discovery Request to the local subnet.

**Answer: B**

**QUESTION NO: 14**

Effective Isotropic Radiated Power is calculated by using which three values? (Choose three.)

- A. antenna bandwidth
- B. antenna gain
- C. cable loss
- D. receiver sensitivity
- E. SSID
- F. transmission power

**Answer: B,C,F**

**QUESTION NO: 15**

Which four file formats are used when importing a single campus map into the Cisco WCS 5.0? (Choose four.)

- A. .BMP
- B. .GIF
- C. .JPEG
- D. .JPG
- E. .PNG
- F. .VSD
- G. .MAP
- H. .XML

**Answer: B,C,D,E**

**QUESTION NO: 16**

When creating a wireless profile in the Cisco ADU and you have selected the WPA/WPA2/CCKM radio button option, what other decision must you make and then configure on this same screen?

- A. the address and the server secret of the authentication device you will authenticate with
- B. the encryption type
- C. the EAP type to be used for authentication
- D. the length and value of the pre-shared key
- E. the SSID of the wireless client

**Answer: C**

**QUESTION NO: 17 DRAG DROP**

STUDY this as you will likely get this DRAG and DROP question!

Exhibit:

Match the interface description on the left with the appropriate interface on the right.

Designed to be analogous to VLANs for wireless LAN client device.	AP Manager
The only port that is active when the controller is in boot mode.	Dynamic
This interface is the only consistently "pingable" in-band interface IP address on the Cisco WLC.	Management
Used for Layer 3 communications between the Cisco WLC and the lightweight access points.	Service Port
Used to support mobility management, DHCP relay, and guest web authentication.	Virtual

ActualTests

**Answer:**

Match the interface description on the left with the appropriate interface on the right.

Designed to be analogous to VLANs on a wireless LAN client device.	Used for Layer 3 communications between the Cisco WLC and the lightweight access points.
The only port that is active when the controller is in boot mode.	Designed to be analogous to VLANs on a wireless LAN client device.
This interface is the only consistently "pingable" in-band interface IP address on the Cisco WLC.	Used to support mobility management, DHCP relay, and guest web authentication.
Used for Layer 3 communications between the Cisco WLC and the lightweight access points.	The only port that is active when the controller is in boot mode.
Used to support mobility management, DHCP relay, and guest web authentication.	This interface is the only consistently "pingable" in-band interface IP address on the Cisco WLC.

ActualTests

**QUESTION NO: 18**

Which roaming situation using controllers in a Cisco Unified Wireless Network requires a client using WPA2 with PKC to reauthenticate to the network?

- A. A wireless client roams to another AP on a different controller in the same mobility domain.
- B. A wireless client roams to another AP on the same controller.
- C. A wireless client roams to another AP after being out of range of the network for 2 minutes.
- D. A wireless client roams to another AP on a controller in a different mobility domain.

**Answer: D**

**QUESTION NO: 19**

What three authentication methods are generally used in enterprise wireless networks? (Choose three.)

- A. AES
- B. CCKM
- C. EAP-FAST
- D. EAP-TLS
- E. PEAP
- F. WEP

**Answer: C,D,E**



**QUESTION NO: 20**

A client is attached to the Cisco Unified Wireless network using controllers. When the client is using WPA2 and EAP authentication, where are the wireless encryption keys located during the active user session? (Choose two.)

- A. on the access point
- B. on the RADIUS server
- C. on the Cisco WCS
- D. on the client
- E. on the Cisco WLC

**Answer: A,D**

**QUESTION NO: 21**

Which statement about an infrastructure basic service set is true according to IEEE 802.11 specifications?

- A. Also called an Ad Hoc Network.
- B. The BSSID is generated from the first wireless client that starts up in the IBSS.
- C. Enables the use of ESS.
- D. No relaying of signals from one client to another client.

**Answer: C**

**QUESTION NO: 22**

What increases bandwidth and resists multipath problems by carrying data in subcarriers?

- A. Direct Sequence Spread Spectrum
- B. Frequency Hopping Spread Spectrum
- C. Narrow Band Frequency
- D. Orthogonal Frequency Division Multiplexing

**Answer: D**

**QUESTION NO: 23**

When creating new configuration profiles in Cisco Secure Services Client, in what format are the files saved?

- A. .RTF
- B. .HTML
- C. .TXT
- D. .XML
- E. .XTML

**Answer: D**

**QUESTION NO: 24**

A controller is connected to a Cisco IOS Catalyst switch. The following is the switch port configuration:

```
interface GigabitEthernet 1/0/10
switchport
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 1,20,30,50
switchport trunk native vlan 20
switchport mode trunk
```

Which controller CLI command assigns its management interface to the Cisco IOS Catalyst switch native vlan interface?

- A. config interface vlan management 0
- B. config interface vlan management 1
- C. config interface vlan management 20
- D. config interface vlan management 30
- E. config interface vlan management 50

**Answer: A**

**QUESTION NO: 25**

What two statements about beacon frames used by access points are true? (Choose two.)

- A. contains SSIDs if this feature is enabled
- B. provides vendor proprietary information
- C. is another name for an associated request

- D. sent in response to a probe frame
- E. includes ATIM window information for power save operations

**Answer: A,B**

**QUESTION NO: 26**

Why does Cisco recommend using Tftpd32 version 3.0 or later when upgrading wireless LAN controller software to release 4.1 or later?

- A. Tftpd32 is a component of CiscoWorks LMS
- B. Tftpd32 supports TFTP file transfers larger than 32 MB
- C. Tftpd32 is Cisco Compatible Extensions version 4 compliant
- D. Tftpd32 supports EoIP tunneling which is required for remote Cisco WLC upgrades

**Answer: B**

**QUESTION NO: 27**

Which set of commands assigns a standalone access point an IP address of 10.0.0.24 with a 27-bit subnet mask and a gateway of 10.0.0.1?

A. `config t`  
`interface BVI1`  
`ip address 10.0.0.24 255.255.255.192`  
`exit`  
`ip default-gateway 10.0.0.1`

B. `config t`  
`interface BVI1`  
`ip address 10.0.0.24 255.255.255.224`  
`exit`  
`ip default-gateway 10.0.0.1`

C. `config t`  
`interface FastEthernet1`  
`ip address 10.0.0.24 255.255.255.224`  
`exit`  
`ip default-gateway 10.0.0.1`

D. `config t`  
`interface Dot11Radio0`  
`ip address 10.0.0.24 255.255.255.224`  
`exit`  
`ip default-gateway 10.0.0.1`

```
E. config t
interface FastEthernet1
ip address 10.0.0.24 255.255.255.192
exit
ip default-gateway 10.0.0.1
```

```
F. config t
interface Dot11Radio0
ip address 10.0.0.24 255.255.255.192
exit
ip default-gateway 10.0.0.1
```

**Answer: B**

**QUESTION NO: 28**

If you have the Cisco ADU installed but want to use the Windows Zero Config utility to configure a wireless network profile, what must you do first?

- A. Define a common profile in both the Cisco ADU and WZC.
- B. Define the wireless profile in the Wireless Networks tab in WZC.
- C. In the WZC utility, make sure that the box labeled "Use Windows to configure my Wireless Network Settings" is checked.
- D. Uninstall the Cisco ADU.

**Answer: C**

**QUESTION NO: 29**

How are application-specific devices differentiated from laptop computers in the way they support Cisco Compatible Extensions?

- A. ASDs are required to support only CCXv1 and v2 features. Laptops must support all CCX features.
- B. ASDs are required to support only CCXv5 management features, while laptops are optional features.
- C. Several features that are required for laptops are not required for ASDs.
- D. There is no differentiation. ASDs and laptops must both support the same CCX features.

**Answer: C**

**QUESTION NO: 30**

When choosing an EAP type for your Cisco ADU security profile, what must you ensure to authenticate successfully?

- A. that the client and authentication server support the same encryption protocol
- B. that the EAP type selected is known not to exchange any of its credentials in the clear
- C. that the EAP type that you selected is supported by the authentication server
- D. that the time set on the clocks for the wireless client and the authenticator are close to the same time
- E. that WEP is not selected

**Answer: C**

**QUESTION NO: 31**

EAP-FAST was first supported where?

- A. CCXv1
- B. CCXv2
- C. CCXv3
- D. CCXv4
- E. CCXv5

**Answer: C**

**QUESTION NO: 32**

What is derived from measuring the RF duty cycle?

- A. dynamic channel selection
- B. LWAPP header length
- C. RF utilization
- D. transmit power control

**Answer: C**

**QUESTION NO: 33**

What security benefit is enabled by using Management Frame Protection?

- A. Provides encryption of administrator sessions between a wireless client and a wireless LAN controller.

- B. Protects the network infrastructure from denial-of-service attacks that attempt to flood the network with associations and probes.
- C. Prevents the formation of client ad hoc networks within the RF coverage domain.
- D. Detects network reconnaissance probes, like those used by tools like NetStumbler, that attempt to discover the wireless network topology.

**Answer: B**

**QUESTION NO: 34**

In 802.1X, which is the supplicant?

- A. the point of access
- B. the machine in the network that keeps a list of conditions
- C. the machine that attempts to access the network
- D. the device that performs the authentication

**Answer: C**

**QUESTION NO: 35**

What are three primary components that describe TKIP? (Choose three.)

- A. Broadcast Key Rotation
- B. Dynamic WEP
- C. Message Integrity Check
- D. Per-Packet Key Hashing
- E. Symmetric Key Cipher
- F. WPA2 Enterprise Mode

**Answer: A,C,D**

**QUESTION NO: 36**

What three roles are defined by 802.1X? (Choose three.)

- A. AAA Server
- B. Authenticatee
- C. Authenticator
- D. Authentication Server
- E. Supplicant

**Answer: C,D,E**

**QUESTION NO: 37**

Which CLI command would be used on a Cisco WLC to troubleshoot mobility, rogue detection, and load-balancing events?

- A. debug dot11
- B. debug lwapp
- C. show dot11 details
- D. showlwapp details

**Answer: A**

**QUESTION NO: 38**

Which three Cisco Unified Wireless Network capabilities use information that is provided by Radio Resource Management neighbor messages? (Choose three.)

- A. Aggressive Load Balancing
- B. Dynamic Channel Assignment
- C. Hybrid Remote Edge Access Point
- D. Inter-controller Mobility (that is, Mobility Groups)
- E. Over-the-Air Provisioning
- F. Rogue AP Classification

**Answer: B,E,F**

**QUESTION NO: 39**

What is the impact of configuring a single SSID to simultaneously support both TKIP and AES encryption?

- A. The overhead associated with supporting both encryption methods will significantly degrade client throughput.
- B. Some wireless client drivers might not handle complex SSID settings and may be unable to associate to the WLAN.
- C. This is an unsupported configuration and the Cisco Wireless Control System will continuously generate alarms until the configuration is corrected.
- D. This is a common configuration for migrating from WPA to WPA2. There is no problem associated with using this configuration.

**Answer: B**

**QUESTION NO: 40**

What is the Default Local Database size for authenticating local users?

- A. 512 entries
- B. 1024 entries
- C. 2048 entries
- D. 4096 entries
- E. 8192 entries

**Answer: A**

**QUESTION NO: 41**

Which statement best represents the authorization aspect of AAA?

- A. Authorization takes place after a successful authentication and provides the Cisco WLC the information needed to allow client access to network resources.
- B. Authorization is the validation of successful DHCP address delivery to the wireless client.
- C. Authorization must be successfully completed in order to proceed with the authentication phase.
- D. Successful authorization will provide encryption keys that will be used to secure the wireless communications between client and AP.

**Answer: A**

**QUESTION NO: 42**

Which two statements best describe LWAPP? (Choose two.)

- A. Cisco proprietary
- B. communication between the AP and client
- C. communication between the AP and the WLC
- D. Lightweight Access Point provisioning
- E. used to encrypt control and data packets

**Answer: A,C**



**QUESTION NO: 43**

Which Extensible Authentication Protocol types are supported by the Cisco Unified Wireless Network?

- A. EAP-TLS, PEAP-MSCHAPv2 and PEAP-GTC only
- B. LEAP and EAP-FAST only
- C. EAP-TLS, PEAP-MSCHAPv2, PEAP-GTC, LEAP, EAP-FAST only
- D. Any EAP supported by the RADIUS authentication server

**Answer: D**

**QUESTION NO: 44**

Which modulation technique allows you to achieve a data rate of 54Mb/s in the 2.4GHz-band?

- A. Complimentary Code Keying
- B. Differential Binary Phase Shift Keying
- C. Differential Quadrature Phase Shift Keying
- D. Quadrature Amplitude Modulation

**Answer: D**

**QUESTION NO: 45**

How are omni antennae in a wireless network most commonly polarized?

- A. circularly
- B. horizontally
- C. vertically
- D. both horizontally and vertically

**Answer: C**

**QUESTION NO: 46**

Which two services are offered on Cisco Unified Wireless Networks running controller v5.0 but not offered on Cisco Mobility Express Solution using 526 controllers with v4.2 code? (Choose two.)

- A. Authentication using 802.1X
- B. Guest access
- C. GUI management

- D. IDS/IPS
- E. Location services
- F. RRM
- G. VoWLAN

**Answer: D,E**

**QUESTION NO: 47**

The 4-way handshake is used to establish which key during the WPA authentication process?

- A. Pairwise Master Key
- B. Pairwise Multiple Key
- C. Pairwise Session Key
- D. Pairwise Transient Key
- E. Pairwise Transverse Key

**Answer: D**

**QUESTION NO: 48**

To seamlessly roam between two wireless cells in a Cisco Unified Wireless Network using controllers, which condition must exist?

- A. The next cell should be on the same channel as the client's current cell.
- B. The wireless client must use an EAP authentication method with the infrastructure authenticator.
- C. The client's password must be the same on both APs.
- D. The next cell should provide the same SSID as the client's current cell.
- E. The clients need static IP addresses.

**Answer: D**

**QUESTION NO: 49**

Which two tasks does RRM routinely perform? (Choose two.)

- A. antenna selection
- B. AP address assignment
- C. channel assignment
- D. encryption method assignment

E. transmit power control

**Answer: C,E**

**QUESTION NO: 50**

Which four parameters need to be configured for local EAP-FAST on the controller? (Choose four.)

- A. Authority ID
- B. Authority ID Information
- C. Client Key
- D. PAC
- E. Server Key
- F. TTL for PAC
- G. Monitor Key
- H. NTP Source

**Answer: A,B,E,F**

**QUESTION NO: 51**

In general, what is the difference in transmit power between an AP operating at Tx Power Level 1 and the same AP operating at Tx Power Level 3?

- A. 2 dB
- B. 3 dB
- C. 6 dB
- D. 11 dB
- E. 17 dB

**Answer: C**

**QUESTION NO: 52**

Which governing body analyzes the applications and environments in which wireless networks are used?

- A. EIRP
- B. ETSI
- C. FCC

- D. IEEE
- E. WiFi Alliance

**Answer: D**

**QUESTION NO: 53**

When using the enterprise-based authentication method for WPA2, a bidirectional handshake exchange occurs between the client and the authenticator. Which five statements are results of that exchange using controller based network? (Choose five.)

- A. a bidirectional exchange of a nonce used for key generation
- B. binding of a Pairwise Master Key at the client and the controller
- C. creation of the Pairwise Transient Key
- D. distribution of the Group Transient Key
- E. distribution of the Pairwise Master key for caching at the access point
- F. proof that each side is alive

**Answer: A,B,C,D,F**

**QUESTION NO: 54**

What are four features of WPA? (Choose four.)

- A. a larger initialization vector, increased to 48 bits
- B. a message integrity check protocol to prevent forgeries
- C. authenticated key management using 802.1X
- D. support for a key caching mechanism
- E. unicast and broadcast key management
- F. requires AES-CCMP

**Answer: A,B,C,E**

**QUESTION NO: 55**

Which two actions would you use to begin to troubleshoot an access point that fails to successfully join a wireless LAN controller? (Choose two.)

- A. SSH to the AP
- B. SSH to the Cisco WCS
- C. SSH to the Cisco WLC

- D. Cisco WLC command: debuglwapp events enable
- E. Cisco WLC command: showlwapp events

**Answer: C,D**

**QUESTION NO: 56**

A controller-based wireless solution can avoid interference by dynamically adjusting what two access point transmission characteristics? (Choose two.)

- A. operating RF channel
- B. SSID names
- C. transmit power levels
- D. switch port parameters
- E. antenna gain

**Answer: A,C**

**QUESTION NO: 57**

What does the current European Telecommunications Standards Institute rule state is the 2.4-GHz maximum transmitter output power for point-to-point installations?

- A. 16dBm
- B. 17dBm
- C. 20dBm
- D. 30dBm
- E. 36dBm

**Answer: B**

**QUESTION NO: 58**

The office is currently operational using one 2106 WLAN controller with six 1131 APs and one 526 WLAN controller with three 521 APs. When the 526 loses power, the 521 APs do not establish a connection with the 2106 WLAN controller. What is the most likely cause of this problem?

- A. The 2106 controller and 526controller were not configured correctly using the sysname and MAC address for a mobility group.
- B. The 2106 controller and 526controller do not share the same mobility group name.
- C. The 521 APs were not configured with the 2106 controller as the secondary controller.

- D. The 2106 controller does not support the 521 APs.
- E. The 2106 controller has no more AP capacity.

**Answer: D**

**QUESTION NO: 59**

Which CLI command would you use on the Cisco WLC to display detailed information for a client associated with a lightweight access point?

- A. debug dot11
- B. showarp switch
- C. show client detailed
- D. showexclusionlist

**Answer: C**

**QUESTION NO: 60**

What are two attributes used to characterize antenna performance? (Choose two.)

- A. attenuation
- B. beamwidth
- C. gain
- D. harmony
- E. interference

**Answer: B,C**

**QUESTION NO: 61**

Which interface is considered a dynamic interface?

- A. the virtual interface
- B. the AP manager interface
- C. the LAG interface
- D. the management interface
- E. the service port interface
- F. a WLAN client data interface

**Answer: F**

**QUESTION NO: 62**

Which statement correctly describes the procedure for a lightweight AP to successfully establish a connection to a controller?

- A. AP authenticates the received Cisco WLC certificate as valid. AP then sends its certificate to the controller.
- B. AP sends its certificate to the controller. AP then authenticates the received Cisco WLC certificate as valid.
- C. AP sends its certificate to the RADIUS server. AP then authenticates the controller certificate as valid.
- D. AP sends its certificate to the RADIUS server. AP then authenticates the RADIUS certificate as valid.
- E. AP authenticates the received RADIUS server certificate as valid. AP then sends its certificate to the RADIUS server.
- F. AP authenticates the received RADIUS server certificate as valid. AP then sends its certificate to the controller.

**Answer: B**

**QUESTION NO: 63**

Bluetooth RF characteristics can be best described as which of the following?

- A. continuous transmitting ?5-GHz range
- B. continuous transmitting ?2.4-GHz range
- C. frequency hopping ?5-GHz range
- D. frequency hopping ?2.4-GHz range

**Answer: D**

**QUESTION NO: 64**

Which best describes an Ad Hoc Network?

- A. Basic Service Set
- B. Extended Service Set
- C. Independent Basic Service Set
- D. Mesh Network
- E. WiMAX Network

**Answer: C**

**QUESTION NO: 65**

A new Cisco Mobility Express 526 controller using v4.2 code direct from the factory is accessible by which default IP address?

- A. 10.10.1.1
- B. 172.16.1.1
- C. 172.16.100.1
- D. 192.168.1.1
- E. 192.168.100.1

**Answer: D**

**QUESTION NO: 66**

Which command path correctly describes how to access the Cisco WCS 5.0 ability to troubleshoot clients?

- A. Tools -> Clients -> select displayed client's MAC address
- B. Tools -> Clients -> enter client's MAC address
- C. Monitor -> Clients -> select displayed client's MAC address
- D. Monitor -> Clients -> enter client's MAC address

**Answer: D**

**QUESTION NO: 67**

What two statements are true about AES-CCMP? (Choose two.)

- A. It is an encryption algorithm used in the 802.11i security protocol.
- B. It is defined in 802.1X.
- C. It is the encryption algorithm used in TKIP implementations.
- D. It is required in WPA.
- E. It is required in WPA2.

**Answer: A,E**

**QUESTION NO: 68**



When would rate shifting down by a client occur?

- A. when the distance to the AP has increased and the missed-symbol rate has increased
- B. when the distance to the AP has increased and the signal level has increased
- C. when multipath has decreased and the missed-symbol rate has decreased
- D. when the noise level has decreased and the signal level has increased

**Answer: A**

**QUESTION NO: 69**

The configuration of a wireless LAN controller as a RADIUS client is ensured by doing what?

- A. adding the MAC address of the physical port of the controller into the trusted client table of the CiscoSecure RADIUS server
- B. using an encrypted tunnel between the CiscoSecure RADIUS server and the controller
- C. defining a RADIUS server secret at both the CiscoSecure RADIUS server and the controller
- D. implementing an EAP exchange between the CiscoSecure RADIUS server and the controller

**Answer: C**

**QUESTION NO: 70**

Which physical layer encoding technology is common to both the IEEE 802.11g and the IEEE 802.11a standards?

- A. BPSK
- B. CCK
- C. DSSS
- D. OFDM

**Answer: D**

**QUESTION NO: 71**

What are the primary methods of configuration management for the Mobility Express Solution?

- A. CCA and CLI
- B. CCA and Web GUI
- C. CLI and Web GUI
- D. CLI, Web GUI, and CCA

- E. Cisco WCS, Web GUI, and CCA
- F. Cisco WCS, Web GUI, CCA, and CLI

**Answer: B**

**QUESTION NO: 72**

On a Cisco Unified Wireless Controller, which three Access Point modes allow for client connectivity? (Choose three.)

- A. Bridge Mode
- B. H-REAP Mode
- C. Local Mode
- D. Monitor Mode
- E. Rogue Detector Mode
- F. Sniffer Mode

**Answer: A,B,C**

**QUESTION NO: 73**

What information is required to add a Cisco WLC into the Cisco WCS?

- A. IP address of AP manager interface
- B. IP address of service port
- C. IP address of management interface
- D. IP address of virtual interface

**Answer: C**

**QUESTION NO: 74**

Which open standard defines the combination of Extensible Authentication Protocol with Advanced Encryption Standard for providing strong wireless LAN client security?

- A. IEEE 802.1X
- B. IEEE 802.11i
- C. WEP
- D. WPA
- E. WPA2

**Answer: B**

**QUESTION NO: 75**

Why are wireless analog video signals that are operating in the 2.4-GHz band particularly harmful to Wi-Fi service?

- A. Analog video is a strong signal and increases the SNR.
- B. Analog video is a constant signal with 100% duty cycle.
- C. Analog video signals are slow frequency hopping and tend to affect the entire band.
- D. Analog Video modulation is the same as Wi-Fi and causes interference.

**Answer: B**

**QUESTION NO: 76**

One of the advantages of implementing EAP-FAST is that there is no need to implement which item as part of your authentication infrastructure?

- A. an access control server
- B. a Certificate Authority infrastructure
- C. a client that supports EAP-FAST
- D. a RADIUS server

**Answer: B**

**QUESTION NO: 77**

An indoor 1240 AP is booting and has obtained an IP address using DHCP. The AP has confirmed prior controller IP addresses from a previously joined mobility group stored in NVRAM. What is the next step the AP performs?

- A. DHCP option 43.
- B. DNS resolution of CISCO-LWAPP-CONTROLLER.localdomain.
- C. Layer 2 LWAPP discovery broadcast.
- D. Layer 3 LWAPP discovery broadcast.
- E. Ping each Cisco WLC to verify its current status.
- F. Select a Cisco WLC based on its position in the configured join selection sequence.

**Answer: A**

**QUESTION NO: 78**

A WLAN deployment will use a combination of Cisco Aironet AP 1240s and multiple Cisco 4404 Wireless LAN Controllers to provide wireless LAN access to end-users. The network administrator has decided to use DHCP Option 43 to enable the APs to discover the wireless LAN controllers. When configuring the DHCP scope, which format should be used for the Cisco WLC addresses?

- A. a comma-separated ASCII string of Cisco WLC AP-manager addresses
- B. a comma-separated ASCII string of Cisco WLC management addresses
- C. a comma-separated ASCII string of Cisco WLC virtual IP addresses
- D. a hexadecimal string of Cisco WLC AP-manager addresses
- E. a hexadecimal string of Cisco WLC management addresses
- F. a hexadecimal string of Cisco WLC virtual IP addresses

**Answer: E**

**QUESTION NO: 79**

What is the maximum number of lightweight APs that can be supported from a single Cisco WCS Navigator management console with Cisco WCS and Cisco WLC running v5.0 code?

- A. 5,000
- B. 10,000
- C. 20,000
- D. 25,000
- E. 30,000
- F. 35,000

**Answer: E**

**QUESTION NO: 80**

A lightweight AP has been deployed in local mode in a network consisting of 10 wireless LAN controllers in a single mobility group. The AP has been configured to use primary, secondary, and tertiary WLCs. Due to a major power failure, the AP's primary, secondary, and tertiary Cisco WLCs are all unavailable. What will be the next step taken by the AP?

- A. The AP will reboot and repeatedly attempt to join the configured primary, secondary, and tertiary Cisco WLCs in that order. The process will continue until one of the configured WLCs is again available.
- B. The AP will attempt to join a Cisco WLC configured as a "Master Controller."
- C. The AP will attempt to join the Cisco WLC with the greatest amount of available capacity.

D. The AP state will transition to AP Fallback Mode and continue providing limited WLAN services (that is, no new client authentications) until a WLC is again available.

**Answer: B**

**QUESTION NO: 81**

Which command path correctly describes how to access the Cisco WCS 5.0 ability to troubleshoot clients?

- A. Tools -> Clients -> select displayed client's MAC address
- B. Tools -> Clients -> enter client's MAC address
- C. Monitor -> Clients -> select displayed client's MAC address
- D. Monitor -> Clients -> enter client's MAC address

**Answer: D**

**QUESTION NO: 82**

What is the Default Local Database size for authenticating local users?

- A. 512 entries
- B. 1024 entries
- C. 2048 entries
- D. 4096 entries
- E. 8192 entries

**Answer: A**

**QUESTION NO: 83**

When using the Pre-Shared Key authentication method for WPA or WPA2, the pre-shared key is used for which two functions? (Choose two.)

- A. to act as the Group Transient Key during the bidirectional handshake
- B. to act as the Pairwise Master Key during the bidirectional handshake
- C. to derive the nonce at each side of the exchange
- D. to derive the Pairwise Transient Key

**Answer: B,D**

**QUESTION NO: 84**

In 802.1X, which is the supplicant?

- A. the point of access
- B. the machine in the network that keeps a list of conditions
- C. the machine that attempts to access the network
- D. the device that performs the authentication

**Answer: C**

**QUESTION NO: 85**

Which statement correctly describes the procedure for a lightweight AP to successfully establish a connection to a controller?

- A. AP authenticates the received Cisco WLC certificate as valid. AP then sends its certificate to the controller.
- B. AP sends its certificate to the controller. AP then authenticates the received Cisco WLC certificate as valid.
- C. AP sends its certificate to the RADIUS server. AP then authenticates the controller certificate as valid.
- D. AP sends its certificate to the RADIUS server. AP then authenticates the RADIUS certificate as valid.
- E. AP authenticates the received RADIUS server certificate as valid. AP then sends its certificate to the RADIUS server.
- F. AP authenticates the received RADIUS server certificate as valid. AP then sends its certificate to the controller.

**Answer: B**

**QUESTION NO: 86**

When creating new configuration profiles in Cisco Secure Services Client, in what format are the files saved?

- A. .RTF
- B. .HTML
- C. .TXT
- D. .XML
- E. .XTML

**Answer: D**

**QUESTION NO: 87**

When would rate shifting down by a client occur?

- A. when the distance to the AP has increased and the missed-symbol rate has increased
- B. when the distance to the AP has increased and the signal level has increased
- C. when multipath has decreased and the missed-symbol rate has decreased
- D. when the noise level has decreased and the signal level has increased

**Answer: A**

**QUESTION NO: 88**

EAP-FAST was first supported where?

- A. CCXv1
- B. CCXv2
- C. CCXv3
- D. CCXv4
- E. CCXv5

**Answer: C**

**QUESTION NO: 89**

Which client application utility allows wireless configuration on Linux platforms?

- A. Airport Extreme
- B. CiscoAironet Desktop Utility
- C. Cisco Secure Services Client
- D. NetworkManager
- E. Windows ZeroConfig

**Answer: D**

**QUESTION NO: 90**

Which three Cisco Unified Wireless Network capabilities use information that is provided by Radio Resource Management neighbor messages? (Choose three.)

- A. Aggressive Load Balancing
- B. Dynamic Channel Assignment
- C. Hybrid Remote Edge Access Point
- D. Inter-controller Mobility (that is, Mobility Groups)
- E. Over-the-Air Provisioning
- F. Rogue AP Classification

**Answer: B,E,F**

**QUESTION NO: 91**

Which best describes an Ad Hoc Network?

- A. Basic Service Set
- B. Extended Service Set
- C. Independent Basic Service Set
- D. Mesh Network
- E. WiMAX Network

**Answer: C**

**QUESTION NO: 92**

What two statements about beacon frames used by access points are true? (Choose two.)

- A. contains SSIDs if this feature is enabled
- B. provides vendor proprietary information
- C. is another name for an associated request
- D. sent in response to a probe frame
- E. includes ATIM window information for power save operations

**Answer: A,B**

**QUESTION NO: 93**

Which authentication method best supports a large enterprise deployment where over the air security is a necessity?

- A. Open Authentication with Web Authentication
- B. PSK with WEP
- C. WPA with PSK



- D. WPA2 with EAP-FAST
- E. WPA2 with PSK

**Answer: D**

**QUESTION NO: 94**

Which CLI command would be used on a Cisco WLC to troubleshoot mobility, rogue detection, and load-balancing events?

- A. debug dot11
- B. debug lwapp
- C. show dot11 details
- D. showlwapp details

**Answer: A**

**QUESTION NO: 95**

Which Extensible Authentication Protocol types are supported by the Cisco Unified Wireless Network?

- A. EAP-TLS, PEAP-MSCHAPv2 and PEAP-GTC only
- B. LEAP and EAP-FAST only
- C. EAP-TLS, PEAP-MSCHAPv2, PEAP-GTC, LEAP, EAP-FAST only
- D. Any EAP supported by the RADIUS authentication server

**Answer: D**

**QUESTION NO: 96**

The central office is currently using a combination of 4400 and 2100 series WLAN controllers running v4.2 and a variety of LWAPP-enabled access points servicing both 2.4 GHz and 5 GHz. The WLAN deployment has been extended to each remote office by implementing a 526 WLAN controller running v4.1 and several 521 access points. Wireless client deployment uses EAP-TLS authentication using a centralized RADIUS server plus 802.11n for performance. After the first remote office deployment, remote office users complain that they are not connecting via 802.11n.

What is the most likely cause of this problem?

- A. The 526 WLAN controller does not support external authentication via RADIUS, prohibiting authentication.

- B. The 521 AP does not support 5 GHz, which prohibits 802.11n.
- C. The 521 AP and 526 WLAN controllers do not support AES, which prohibits 802.11n.
- D. The 526 WLAN controller does not support 802.11n with v4.1 and must be upgraded to v4.2.
- E. The 526 WLAN controller does not support 802.11n with either v4.1 or v4.2.

**Answer: E**

**QUESTION NO: 97**

To seamlessly roam between two wireless cells in a Cisco Unified Wireless Network using controllers, which condition must exist?

- A. The next cell should be on the same channel as the client's current cell.
- B. The wireless client must use an EAP authentication method with the infrastructure authenticator.
- C. The client's password must be the same on both APs.
- D. The next cell should provide the same SSID as the client's current cell.
- E. The clients need static IP addresses.

**Answer: D**

**QUESTION NO: 98**

The Cisco Secure Services Client suite comprises which three elements? (Choose three.)

- A. Cisco Secure Services Client
- B. Cisco Secure Services Client Administration Utilities
- C. Cisco Secure Services Client Auditor
- D. Cisco Secure Services Client DesktopConfigurator
- E. Cisco Secure Services Client Log Packager
- F. Cisco Secure Services Client Manager

**Answer: A,B,E**

**QUESTION NO: 99**

Bluetooth RF characteristics can be best described as which of the following?

- A. continuous transmitting ?5-GHz range
- B. continuous transmitting ?2.4-GHz range
- C. frequency hopping ?5-GHz range

D. frequency hopping -2.4-GHz range

**Answer: D**

**QUESTION NO: 100**

When choosing an EAP type for your Cisco ADU security profile, what must you ensure to authenticate successfully?

- A. that the client and authentication server support the same encryption protocol
- B. that the EAP type selected is known not to exchange any of its credentials in the clear
- C. that the EAP type that you selected is supported by the authentication server
- D. that the time set on the clocks for the wireless client and the authenticator are close to the same time
- E. that WEP is not selected

**Answer: C**

**QUESTION NO: 101**

Cisco Client Management Frame Protection is running on a mobility group with two controllers. Which two MFP requirements protect the network? (Choose two.)

- A. forces clients to authenticate, using a secure EAP method only
- B. implements the validation of wireless management frames
- C. requires CCXv5
- D. requires the use of anonbroadcast SSID
- E. requires CCXv4

**Answer: B,C**

**QUESTION NO: 102**

Which statement applies to TKIP?

- A. is part of the initial key exchange used to derive a pairwise temporal key
- B. is used to encrypt a WEP authenticated session
- C. is used to encrypt the data for WPA sessions
- D. is used to secure the initial authentication credential exchange between client and authenticator

**Answer: C**

**QUESTION NO: 103**

What is derived from measuring the RF duty cycle?

- A. dynamic channel selection
- B. LWAPP header length
- C. RF utilization
- D. transmit power control

**Answer: C**

**QUESTION NO: 104**

A controller is connected to a Cisco IOS Catalyst switch. The following is the switch port configuration:

```
interface GigabitEthernet 1/0/10
switchport
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 1,20,30,50
switchport trunk native vlan 20
switchport mode trunk
```

Which controller CLI command assigns its management interface to the Cisco IOS Catalyst switch native vlan interface?

- A. config interface vlan management 0
- B. config interface vlan management 1
- C. config interface vlan management 20
- D. config interface vlan management 30
- E. config interface vlan management 50

**Answer: A**

**QUESTION NO: 105**

How are omni antennae in a wireless network most commonly polarized?

- A. circularly
- B. horizontally

- C. vertically
- D. both horizontally and vertically

**Answer: C**

**QUESTION NO: 106**

Which two actions would you use to begin to troubleshoot an access point that fails to successfully join a wireless LAN controller? (Choose two.)

- A. SSH to the AP
- B. SSH to the Cisco WCS
- C. SSH to the Cisco WLC
- D. Cisco WLC command: debuglwapp events enable
- E. Cisco WLC command: showlwapp events

**Answer: C,D**

**QUESTION NO: 107**

Which four parameters need to be configured for local EAP-FAST on the controller? (Choose four.)

- A. Authority ID
- B. Authority ID Information
- C. Client Key
- D. PAC
- E. Server Key
- F. TTL for PAC
- G. Monitor Key
- H. NTP Source

**Answer: A,B,E,F**

**QUESTION NO: 108**

Which CLI command would you use on the Cisco WLC to display detailed information for a client associated with a lightweight access point?

- A. debug dot11
- B. showarp switch

- C. show client detailed
- D. showexclusionlist

**Answer: C**

**QUESTION NO: 109**

Lightweight access points send control traffic to which device(s)?

- A. Other access points.
- B. The Wireless Control System.
- C. The Wireless Controller.
- D. Lightweight access points don't send control traffic.

**Answer: C**

**QUESTION NO: 110**

Up to how many Cisco WiSMs are supported in a single mobility group operating under v5.0 code?

- A. 5
- B. 12
- C. 16
- D. 24
- E. 150
- F. 300

**Answer: B**

**QUESTION NO: 111**

Which roaming situation using controllers in a Cisco Unified Wireless Network requires a client using WPA2 with PKC to reauthenticate to the network?

- A. A wireless client roams to another AP on a different controller in the same mobility domain.
- B. A wireless client roams to another AP on the same controller.
- C. A wireless client roams to another AP after being out of range of the network for 2 minutes.
- D. A wireless client roams to another AP on a controller in a different mobility domain.

**Answer: D**

**QUESTION NO: 112**

Which two services are offered on Cisco Unified Wireless Networks running controller v5.0 but not offered on Cisco Mobility Express Solution using 526 controllers with v4.2 code? (Choose two.)

- A. Authentication using 802.1X
- B. Guest access
- C. GUI management
- D. IDS/IPS
- E. Location services
- F. RRM
- G. VoWLAN

**Answer: D,E**

**QUESTION NO: 113**

What is the impact of configuring a single SSID to simultaneously support both TKIP and AES encryption?

- A. The overhead associated with supporting both encryption methods will significantly degrade client throughput.
- B. Some wireless client drivers might not handle complex SSID settings and may be unable to associate to the WLAN.
- C. This is an unsupported configuration and the Cisco Wireless Control System will continuously generate alarms until the configuration is corrected.
- D. This is a common configuration for migrating from WPA to WPA2. There is no problem associated with using this configuration.

**Answer: B**

**QUESTION NO: 114**

How are application-specific devices differentiated from laptop computers in the way they support Cisco Compatible Extensions?

- A. ASDs are required to support only CCXv1 and v2 features. Laptops must support all CCX features.
- B. ASDs are required to support only CCXv5 management features, while laptops are optional features.

- C. Several features that are required for laptops are not required for ASDs.
- D. There is no differentiation. ASDs and laptops must both support the same CCX features.

**Answer: C**

**QUESTION NO: 115**

Which CLI command shows the controller configuration in a way that is similar to the way that it is displayed on Cisco IOS routers?

- A. showconfig
- B. show runconfig
- C. show run-config
- D. show runningconfig
- E. show running-config

**Answer: E**

**QUESTION NO: 116**

Cisco wireless requires that controllers within a mobility group have what three characteristics in common? (Choose three.)

- A. controllers must be in the same subnet
- B. mobility group name
- C. virtual interface IP address
- D. RF-network name
- E. version of controller code
- F. mobility anchor

**Answer: B,C,E**

**QUESTION NO: 117**

When creating a wireless profile in the Cisco ADU and you have selected the WPA/WPA2/CCKM radio button option, what other decision must you make and then configure on this same screen?

- A. the address and the server secret of the authentication device you will authenticate with
- B. the encryption type
- C. the EAP type to be used for authentication
- D. the length and value of the pre-shared key



E. the SSID of the wireless client

**Answer: C**

**QUESTION NO: 118**

If you have the Cisco ADU installed but want to use the Windows Zero Config utility to configure a wireless network profile, what must you do first?

- A. Define a common profile in both the Cisco ADU and WZC.
- B. Define the wireless profile in the Wireless Networks tab in WZC.
- C. In the WZC utility, make sure that the box labeled "Use Windows to configure my Wireless Network Settings" is checked.
- D. Uninstall the Cisco ADU.

**Answer: C**

**QUESTION NO: 119**

What three authentication methods are generally used in enterprise wireless networks? (Choose three.)

- A. AES
- B. CCKM
- C. EAP-FAST
- D. EAP-TLS
- E. PEAP
- F. WEP

**Answer: C,D,E**

**QUESTION NO: 120**

Which two tasks does RRM routinely perform? (Choose two.)

- A. antenna selection
- B. AP address assignment
- C. channel assignment
- D. encryption method assignment
- E. transmit power control

**Answer: C,E**

**QUESTION NO: 121**

In general, what is the difference in transmit power between an AP operating at Tx Power Level 1 and the same AP operating at Tx Power Level 3?

- A. 2 dB
- B. 3 dB
- C. 6 dB
- D. 11 dB
- E. 17 dB

**Answer: C**

**QUESTION NO: 122**

Which two statements are true about WiMAX technology? (Choose two.)

- A. WiMAX is defined by 802.11i.
- B. Typically, fixed WiMAX networks have a higher gain direction antenna installed near the client.
- C. WiMAX is capable of working as a long-range system over several miles.
- D. WiMAX works only for licensed frequencies.

**Answer: B,C**

**QUESTION NO: 123**

In the AP Layer 3 controller discovery process, after the LWAPP Discovery Request is broadcast on a local subnet, what is the next step that the AP takes?

- A. Determine whether the controller responses are the primary controller.
- B. Send an LWAPP discovery request to controllers learned via OTAP if operational.
- C. Send an LWAPP response to the master controller if known.
- D. Wait 5 seconds and resend a Discovery Request to the local subnet.

**Answer: B**

**QUESTION NO: 124**

Why are wireless analog video signals that are operating in the 2.4-GHz band particularly harmful to Wi-Fi service?

- A. Analog video is a strong signal and increases the SNR.
- B. Analog video is a constant signal with 100% duty cycle.
- C. Analog video signals are slow frequency hopping and tend to affect the entire band.
- D. Analog Video modulation is the same as Wi-Fi and causes interference.

**Answer: B**

**QUESTION NO: 125**

Why does Cisco recommend using Tftpd32 version 3.0 or later when upgrading wireless LAN controller software to release 4.1 or later?

- A. Tftpd32 is a component of CiscoWorks LMS
- B. Tftpd32 supports TFTP file transfers larger than 32 MB
- C. Tftpd32 is Cisco Compatible Extensions version 4 compliant
- D. Tftpd32 supports EoIP tunneling which is required for remote Cisco WLC upgrades

**Answer: B**

**QUESTION NO: 126**

Which statement about an infrastructure basic service set is true according to IEEE 802.11 specifications?

- A. Also called an Ad Hoc Network.
- B. The BSSID is generated from the first wireless client that starts up in the IBSS.
- C. Enables the use of ESS.
- D. No relaying of signals from one client to another client.

**Answer: C**

**QUESTION NO: 127**

What security benefit is enabled by using Management Frame Protection?

- A. Provides encryption of administrator sessions between a wireless client and a wireless LAN controller.
- B. Protects the network infrastructure from denial-of-service attacks that attempt to flood the network with associations and probes.

- C. Prevents the formation of client ad hoc networks within the RF coverage domain.
- D. Detects network reconnaissance probes, like those used by tools like NetStumbler, that attempt to discover the wireless network topology.

**Answer: B**

**QUESTION NO: 128**

The corporate network locates all RADIUS servers at the centralized data center for authentication. The remote offices use access points operating in H-REAP mode using v5.0 code with various local and central switch WLANs. When a remote office has lost connectivity to the main corporate network due to a WAN outage, which two statements correctly describe the status of that remote office when H-REAP access points are operating in standalone mode? (Choose two.)

- A. All Cisco APs with 16 MB of RAM or more can operate as standalone H-REAP.
- B. All clients will continue association until the respective authentication timers expire.
- C. If configured, clients using WPA or WPA2 with PSK and locally switched WLANs will continue to operate.
- D. If configured, locally switched WLANs will continue operation using the backup RADIUS server feature.
- E. If configured, locally switched WLANs will continue operation using Local-EAP for EAP-LEAP and EAP-FAST for up to twenty users.
- F. If configured, locally switched WLANs will continue operation using Local-EAP for EAP-LEAP, EAP-FAST, EAP-TLS, and EAP-PEAP for up to twenty users.

**Answer: C,E**

**QUESTION NO: 129**

Which governing body analyzes the applications and environments in which wireless networks are used?

- A. EIRP
- B. ETSI
- C. FCC
- D. IEEE
- E. WiFi Alliance

**Answer: D**

**QUESTION NO: 130**

A new Cisco Mobility Express 526 controller using v4.2 code direct from the factory is accessible by which default IP address?

- A. 10.10.1.1
- B. 172.16.1.1
- C. 172.16.100.1
- D. 192.168.1.1
- E. 192.168.100.1

**Answer: D**

**QUESTION NO: 131**

What does the current European Telecommunications Standards Institute rule state is the 2.4-GHz maximum transmitter output power for point-to-point installations?

- A. 16dBm
- B. 17dBm
- C. 20dBm
- D. 30dBm
- E. 36dBm

**Answer: B**

**QUESTION NO: 132**

Using Cisco WCS v5.0, which configuration command option allows you to see a summary of all access points in the Cisco WCS database?

- A. Configure -> Controllers
- B. Configure -> Access Points
- C. Configure ->Config Groups
- D. Configure -> Chokepoints
- E. Configure -> Database

**Answer: B**

**QUESTION NO: 133**

What are two attributes used to characterize antenna performance? (Choose two.)

- A. attenuation
- B. beamwidth
- C. gain
- D. harmony
- E. interference

**Answer: B,C**

**QUESTION NO: 134**

Which four file formats are used when importing a single campus map into the Cisco WCS 5.0? (Choose four.)

- A. .BMP
- B. .GIF
- C. .JPEG
- D. .JPG
- E. .PNG
- F. .VSD
- G. .MAP
- H. .XML

**Answer: B,C,D,E**

**QUESTION NO: 135**

How do the features that are available on the Cisco WCS for Linux version differ from those of the Cisco WCS for Windows version?

- A. Assuming that there are no differences in hardware, a Cisco WCS for Linux can support up to 750 wireless LAN controllers. A Cisco WCS for Windows can support up to 250 wireless LAN controllers.
- B. Cisco WCS for Windows includes support for Cisco Spectrum Expert clients. Cisco WCS for Linux does not support Cisco Spectrum Expert clients.
- C. Cisco WCS for Linux is required for deployments.
- D. There are no differences in features between the Linux and Windows versions of Cisco WCS.

**Answer: D**

**QUESTION NO: 136**

Which modulation technique allows you to achieve a data rate of 54Mb/s in the 2.4GHz-band?

- A. Complimentary Code Keying
- B. Differential Binary Phase Shift Keying
- C. Differential Quadrature Phase Shift Keying
- D. Quadrature Amplitude Modulation

**Answer: D**

**QUESTION NO: 137**

Which limitation applies to the use of the Cisco WLAN Solution Management over Wireless feature?

- A. Controllers must be managed using only secure protocols (that is, SSH and HTTPS), not nonsecure protocols (that is, HTTP and Telnet).
- B. Read-write access is not available; only read-only access is supported.
- C. Uploads and downloads from the controller are not allowed.
- D. Wireless clients can manage other controllers however not the same controller and AP to which the client is associated.

**Answer: C**

**QUESTION NO: 138**

What is the result when client exclusion is enabled with a timeout value of zero?

- A. Clients are excluded indefinitely.
- B. Clients are never excluded.
- C. Client exclusion is disabled.
- D. Clients must be explicitly included by specifying the MAC address.
- E. Exclusion and inclusion is determined by access list.

**Answer: A**

**QUESTION NO: 139**

An indoor 1240 AP is booting and has obtained an IP address using DHCP. The AP has confirmed prior controller IP addresses from a previously joined mobility group stored in NVRAM. What is the next step the AP performs?

- A. DHCP option 43.
- B. DNS resolution of CISCO-LWAPP-CONTROLLER.localdomain.
- C. Layer 2 LWAPP discovery broadcast.
- D. Layer 3 LWAPP discovery broadcast.
- E. Ping each Cisco WLC to verify its current status.
- F. Select a Cisco WLC based on its position in the configured join selection sequence.

**Answer: A**

**QUESTION NO: 140**

The existing Cisco Unified Wireless Controller is running v5.0 code for both the controllers and the Cisco WCS. A controller has been configured with an appropriate rogue rule condition to report discovered APs to the Cisco WCS. What default alarm level is used to display all rogue APs in the Alarm Summary?

- A. Critical
- B. Flash
- C. Major
- D. Minor
- E. Urgent

**Answer: D**

**QUESTION NO: 141**

Which AP to Wireless LAN Controller discovery process requires a previous association of the AP with a Cisco WLC?

- A. AP priming
- B. defining a master controller
- C. DHCP Option 6
- D. DHCP Option 43
- E. over-the-air provisioning

**Answer: A**

**QUESTION NO: 142**

What two statements are true about AES-CCMP? (Choose two.)



- A. It is an encryption algorithm used in the 802.11i security protocol.
- B. It is defined in 802.1X.
- C. It is the encryption algorithm used in TKIP implementations.
- D. It is required in WPA.
- E. It is required in WPA2.

**Answer: A,E**

**QUESTION NO: 143**

What unit of measurement is used to represent the strength of an antenna's radiation pattern?

- A. dBi
- B. dBm
- C. mW
- D. GHz

**Answer: A**

**QUESTION NO: 144**

What are three primary components that describe TKIP? (Choose three.)

- A. Broadcast Key Rotation
- B. Dynamic WEP
- C. Message Integrity Check
- D. Per-Packet Key Hashing
- E. Symmetric Key Cipher
- F. WPA2 Enterprise Mode

**Answer: A,C,D**

**QUESTION NO: 145**

Which physical layer encoding technology is common to both the IEEE 802.11g and the IEEE 802.11a standards?

- A. BPSK
- B. CCK
- C. DSSS
- D. OFDM

**Answer: D**

**QUESTION NO: 146**

The 4-way handshake is used to establish which key during the WPA authentication process?

- A. Pairwise Master Key
- B. Pairwise Multiple Key
- C. Pairwise Session Key
- D. Pairwise Transient Key
- E. Pairwise Transverse Key

**Answer: D**

**QUESTION NO: 147**

Which set of commands assigns a standalone access point an IP address of 10.0.0.24 with a 27-bit subnet mask and a gateway of 10.0.0.1?

- A. 

```
config t
interface BVI1
ip address 10.0.0.24 255.255.255.192
exit
ip default-gateway 10.0.0.1
```
- B. 

```
config t
interface BVI1
ip address 10.0.0.24 255.255.255.224
exit
ip default-gateway 10.0.0.1
```
- C. 

```
config t
interface FastEthernet1
ip address 10.0.0.24 255.255.255.224
exit
ip default-gateway 10.0.0.1
```
- D. 

```
config t
interface Dot11Radio0
ip address 10.0.0.24 255.255.255.224
exit
ip default-gateway 10.0.0.1
```
- E. 

```
config t
interface FastEthernet1
ip address 10.0.0.24 255.255.255.192
```

```
exit
ip default-gateway 10.0.0.1
F. config t
interface Dot11Radio0
ip address 10.0.0.24 255.255.255.192
exit
ip default-gateway 10.0.0.1
```

**Answer: B**

**QUESTION NO: 148**

Which three elements define the 802.11n implementation of MIMO? (Choose three.)

- A. Channel Bonding
- B. Dynamic Frequency Selection
- C. Maximal Ratio Combining
- D. Packet Aggregation
- E. Spatial Multiplexing
- F. Transmit Beam Forming

**Answer: C,E,F**

**QUESTION NO: 149**

A controller-based wireless solution can avoid interference by dynamically adjusting what two access point transmission characteristics? (Choose two.)

- A. operating RF channel
- B. SSID names
- C. transmit power levels
- D. switch port parameters
- E. antenna gain

**Answer: A,C**

**QUESTION NO: 150**

Effective Isotropic Radiated Power is calculated by using which three values? (Choose three.)

- A. antenna bandwidth

- B. antenna gain
- C. cable loss
- D. receiver sensitivity
- E. SSID
- F. transmission power

**Answer: B,C,F**

**QUESTION NO: 151**

Which statement best represents the authorization aspect of AAA?

- A. Authorization takes place after a successful authentication and provides the Cisco WLC the information needed to allow client access to network resources.
- B. Authorization is the validation of successful DHCP address delivery to the wireless client.
- C. Authorization must be successfully completed in order to proceed with the authentication phase.
- D. Successful authorization will provide encryption keys that will be used to secure the wireless communications between client and AP.

**Answer: A**

**QUESTION NO: 152**

What increases bandwidth and resists multipath problems by carrying data in subcarriers?

- A. Direct Sequence Spread Spectrum
- B. Frequency Hopping Spread Spectrum
- C. Narrow Band Frequency
- D. Orthogonal Frequency Division Multiplexing

**Answer: D**

**QUESTION NO: 153**

Which two statements best describe LWAPP? (Choose two.)

- A. Cisco proprietary
- B. communication between the AP and client
- C. communication between the AP and the WLC
- D. Lightweight Access Point provisioning

E. used to encrypt control and data packets

**Answer: A,C**

**QUESTION NO: 154**

What is fading?

- A. Another signal source is producing energy on the channel in which you are trying to operate.
- B. The desired signal reaches the receiving antenna via multiple paths, each of which has a different propagation delay and path loss.
- C. A time-varying change in the path loss of a link with the time variance governed by the movement of objects in the environment, including the transmitter and receiver themselves.
- D. A function of the frequency and should be provided in the cable specification by the vendor.
- E. The minimum signal level for the receiver to be able to acceptably decode the information.
- F. The time delay from the reception of the first instance of the signal until the last instance.

**Answer: C**

**QUESTION NO: 155**

What three roles are defined by 802.1X? (Choose three.)

- A. AAA Server
- B. Authenticatee
- C. Authenticator
- D. Authentication Server
- E. Supplicant

**Answer: C,D,E**

**QUESTION NO: 156**

What are four features of WPA? (Choose four.)

- A. a larger initialization vector, increased to 48 bits
- B. a message integrity check protocol to prevent forgeries
- C. authenticated key management using 802.1X
- D. support for a key caching mechanism
- E. unicast and broadcast key management
- F. requires AES-CCMP

**Answer: A,B,C,E**

**QUESTION NO: 157**

When using the enterprise-based authentication method for WPA2, a bidirectional handshake exchange occurs between the client and the authenticator. Which five statements are results of that exchange using controller based network? (Choose five.)

- A. a bidirectional exchange of a nonce used for key generation
- B. binding of a Pairwise Master Key at the client and the controller
- C. creation of the Pairwise Transient Key
- D. distribution of the Group Transient Key
- E. distribution of the Pairwise Master key for caching at the access point
- F. proof that each side is alive

**Answer: A,B,C,D,F**

**QUESTION NO: 158**

A client is attached to the Cisco Unified Wireless network using controllers. When the client is using WPA2 and EAP authentication, where are the wireless encryption keys located during the active user session? (Choose two.)

- A. on the access point
- B. on the RADIUS server
- C. on the Cisco WCS
- D. on the client
- E. on the Cisco WLC

**Answer: A,D**

**QUESTION NO: 159**

Which two attacks does Management Frame Protection help to mitigate? (Choose two.)

- A. Eavesdropping
- B. Denial of Service
- C. War Driving
- D. Man-in-the-Middle

**Answer: B,D**

**QUESTION NO: 160**

What are the four types of wireless networks? (Choose four)

- A. Wireless PAN
- B. LAN
- C. MAN
- D. VLAN
- E. WAN

**Answer: A,B,C,E**

**QUESTION NO: 161**

What is the typical maximum range of a wireless PAN?

- A. 45 feet
- B. 50 feet
- C. 55 feet
- D. 60 feet

**Answer: B**

**QUESTION NO: 162**

True or false: A wireless PAN consumes little power from small handheld computer devices.

- A. True
- B. false

**Answer: A**

**QUESTION NO: 163**

What relatively new standard applies to wireless MANs?

- A. IEEE 802.11
- B. IEEE802.3Z
- C. Wi-Fi

D. IEEE 802.16.

**Answer: D**

**QUESTION NO: 164**

True or false: A computer device stores data in analog form.

- A. true
- B. false

**Answer: B**

**QUESTION NO: 165**

On what layers of the OSI reference model do wireless networks operate?(Choose two)

- A. Physical layer
- B. Network layer
- C. data link layer.
- D. session layer

**Answer: A,C**

**QUESTION NO: 166**

RF signals offer relatively short range as compared to light signals. True or false?

- A. True
- B. false

**Answer: B**

**QUESTION NO: 167**

Spread spectrum generally requires user licenses. True or false?

- A. True
- B. false

**Answer: B**



**QUESTION NO: 168**

Approximately up to what range do direct infrared systems operate?

- A. 0.5 mile
- B. 1 mile
- C. 1.5 mile
- D. 2.0 mile

**Answer: B**

**QUESTION NO: 169**

What is the general maximum coverage area of a wireless PAN?

- A. within 30 feet
- B. within 35 feet
- C. within 40 feet
- D. within 45 feet

**Answer: A**

**QUESTION NO: 170**

Which IEEE standards group uses Bluetooth as the basis for the standard?

- A. IEEE 802.15
- B. IEEE 802.11
- C. IEEE 802.13
- D. IEEE 802.16

**Answer: A**

**QUESTION NO: 171**

In what frequency band does Bluetooth operate?

- A. 2.2 GHZ
- B. 2.4 GHZ

- C. 2.6 GHz
- D. 3.0 GHz

**Answer: B**

**QUESTION NO: 172**

A Bluetooth-enabled device is always transmitting. True or false?

- A. True
- B. false

**Answer: B**

**QUESTION NO: 173**

What is the highest possible data rate of an IrDA device?

- A. 2 Mbps
- B. 4 Mbps
- C. 6 Mbps
- D. 8 Mbps

**Answer: B**

**QUESTION NO: 174**

WEP is a mandatory encryption mechanism. True or false?

- A. True
- B. false

**Answer: B**

**QUESTION NO: 175**

In what frequency band does 802.11a operate in?

- A. 2.2 GHz
- B. 2.4 GHz
- C. 2.6 GHz

D. 5 GHz

**Answer: D**

**QUESTION NO: 176**

How many non-overlapping channels are available with 802.11b wireless LANs?

- A. One
- B. TWO
- C. Three
- D. Four

**Answer: C**

**QUESTION NO: 177**

True or false: 802.11g operates at up to 54 Mbps and interoperates with 802.11b.

- A. True
- B. false

**Answer: A**

**QUESTION NO: 178**

A learning bridge forwards all packets. True or false?

- A. True
- B. false

**Answer: B**

**QUESTION NO: 179**

True or false: FDMA requires users to take turns transmitting signals.

- A. True
- B. false

**Answer: B**

**QUESTION NO: 180**

WPA uses TKIP and is a subset of the 802.11 i standard. True or false?

- A. True
- B. false

**Answer: A**

**QUESTION NO: 181**

You work as a Network Administrator for Tech Perfect Inc. You have to implement a wireless LAN network for the company. After implementing the network, you check all the functions and find that most of its clients try to send data on the same channel at the same time. As a result, a collision occurs in the network and it affects the communication. What is the reason behind this problem?

- A. The IP addresses of clients are in the same subnet.
- B. The clients are not in range of one another.
- C. The controller is not configured properly.
- D. The access point cannot cover the required area.

**Answer: B**

**QUESTION NO: 182**

The network administrator of a company makes some changes in monitor mode of the access point using a CLI session. This change affects the value of the channels that are monitored in the monitor mode. Which command has he run on the access point?

- A. config advanced [802.11a | 802.11b] channel dca anchor-time value
- B. config {802.11a | 802.11b} channel global auto
- C. config advanced 802.11b monitor channel-list
- D. config advanced {802.11a | 802.11b} channel dca interval value

**Answer: C**

**QUESTION NO: 183**

A company has a wireless network. In this network, collisions occur when more than one device sends data at the same time. Which physical layer function can a network administrator perform to

determine whether or not any device is sending data to the channel?

- A. CSMA/CD
- B. CCA
- C. CSMA/CA
- D. CCX

**Answer: B**

**QUESTION NO: 184**

John works as a network administrator for Web Perfect Inc. The company has a wireless LAN network. John has configured shared key authentication on a client. The client and the AP start exchanging the frames to enable authentication. Which of the following vulnerabilities may occur while the client and the AP exchange the challenge text over the wireless link?

- A. Land attack
- B. Vulnerability attack
- C. DoS attack
- D. Man-in-the-middle attack

**Answer: D**

**QUESTION NO: 185**

You work as a network administrator for Tech Perfect Inc. The company has a wireless network. You set up a Cisco 6100 series system controller in the network. After a short period, you find that the IP address assigned to the controller is unusable. Which of the following fields provides this information?

- A. Rogue summary
- B. Controller summary
- C. Alarm summary
- D. AP summary

**Answer: C**

**QUESTION NO: 186**

Richard works as a network administrator for Fenco Auto Inc. The company deploys a wireless LAN network but there is some problem due to the interference of signals. Which of the following tools should you use to determine signal strength, noise level, and potential sources of

interference? Each answer represents a complete solution.

(Choose three.)

- A. RSSI
- B. Link Budget
- C. EIRP
- D. SNR

**Answer: A,B,D**

**QUESTION NO: 187**

You are using maps in the WCS to design a wireless LAN network. You add a campus and two buildings to the map. Now you plan to add a new floor area to the first building. The floor types include cubes and walled offices, drywall office only, and outdoor open space. Which of the following do the floor types use to assist the WCS by adding these elements?

- A. Electromagnetic interference
- B. RF prediction
- C. Site survey utility
- D. RF modeling

**Answer: D**

**QUESTION NO: 188**

A business customer uses Non-LOS WiMAX wireless network technology. Which of the following data rates is provided to the customer?

- A. 30 Mbps
- B. 70 Mbps
- C. 40 Mbps
- D. 15 Mbps

**Answer: A**

**QUESTION NO: 189**

Which of the following methods is NOT used to access an AP in autonomous mode?

- A. Browse

- B. Telnet
- C. Auxiliary
- D. Console

**Answer: C**

**QUESTION NO: 190**

In which of the following modes can a LWAPP operate?

- A. Layer 1 and Layer 3 LWAPP mode
- B. Layer 1 and Layer 5 LWAPP mode
- C. Layer 2 and Layer 3 LWAPP mode
- D. Layer 3 and Layer 5 LWAPP mode

**Answer: C**

**QUESTION NO: 191**

On which of the following web servers does WCS run?

- A. Apache
- B. Netscape enterprise
- C. Boa
- D. Zeus

**Answer: A**

**QUESTION NO: 192**

What is the facility level of FTP Daemons?

- A. 10
- B. 11
- C. 12
- D. 15

**Answer: B**

**QUESTION NO: 193**

Which software is designed for both wired and wireless profile management and can access to Cisco Enterprise networks?

- A. ACS
- B. SSC
- C. CSA
- D. SSL

**Answer: B**

**QUESTION NO: 194**

Which of the following defines the correct path to create an interface in the controller that ties to VLAN for GUESTNET users?

- A. Interfaces > New
- B. CONTROLLER > New interfaces
- C. VLAN > Interface > New
- D. CONTROLLER > Interfaces > New

**Answer: D**

**QUESTION NO: 195**

Richard works as a network administrator for Fenco Auto Inc. The company has a wireless LAN network. All users are working on the Linux operating system. Which of the following is used to set the parameters of the network interface, which are specific to the wireless operation?

- A. IPCONFIG
- B. IWCONFIG
- C. IFCONFIG
- D. DB\_CONFIG

**Answer: B**

**QUESTION NO: 196**

Richard works as a network administrator for Fenco Auto Inc. The company has a wireless LAN network. Richard configures 802.11 authentications on all the clients present in the network. A client becomes active on the network and wants to pass traffic on the medium. Which of the following frames does the client use to search all access points in its radio range?



- A. Authentication request frame
- B. Association request frame
- C. Probe request frame
- D. Authentication response frame

**Answer: C**

**QUESTION NO: 197**

You work as a network consultant. Fenco Auto Inc. hires you to troubleshoot a communication problem and implement a functional wireless network. You check the network connection and all related issues. You find a reason why the clients do not communicate with each other, as they try to send data on the same channel at the same time. What is the best way to mitigate this problem?

- A. Forces RTS/CTS control frames.
- B. Remove the obstacles that are in the way
- C. Reduce transmitted power of the signal.
- D. Adjust the radio resources as needed.

**Answer: A**

**QUESTION NO: 198**

In what frequency band does 802.11n operate in?

- A. 5.0Ghz
- B. 2.4Ghz
- C. 3.7Ghz
- D. 2.4Ghz and 5.0 Ghz

**Answer: D**

**QUESTION NO: 199**

The Certkiller network administrator needs to determine what LAN devices to install on the Certkiller network. What are two advantages of using Layer 2 Ethernet switches over hubs? (Choose two)

- A. Allowing simultaneous frame transmissions
- B. Increasing the size of broadcast domains

- C. Increasing the maximum length of UTP cabling between devices
- D. Filtering frames based on MAC addresses
- E. Decreasing the number of collision domains

**Answer: A,D**

**QUESTION NO: 200**

CDP is being used throughout the Certkiller network. What are two reasons why the Certkiller network administrator would use CDP? (Choose two)

- A. To determine the status of network services on a remote device
- B. To obtain the IP Address of a connected device in order to telnet to the device
- C. To verify the type of cable interconnecting two devices
- D. To verify Layer 2 connectivity between two devices when Layer 3 fails
- E. To obtain VLAN information from directly connected switches
- F. To determine the status of the routing protocols between directly connected routers
- G. To support automatic network failover during outages

**Answer: B,D**

**QUESTION NO: 201**

CDP is running between two Certkiller devices. What information is supplied by CDP? (Select three)

- A. Device Identifiers
- B. Capabilities list
- C. Platform
- D. Route identifier
- E. Neighbor traffic data

**Answer: A,B,C**

**QUESTION NO: 202**

What is the main advantage to using a short-range ZigBee communication device?

- A. Low-power, long battery-life and secure networking
- B. It will replace Bluetooth devices
- C. The battery is smaller than other devices

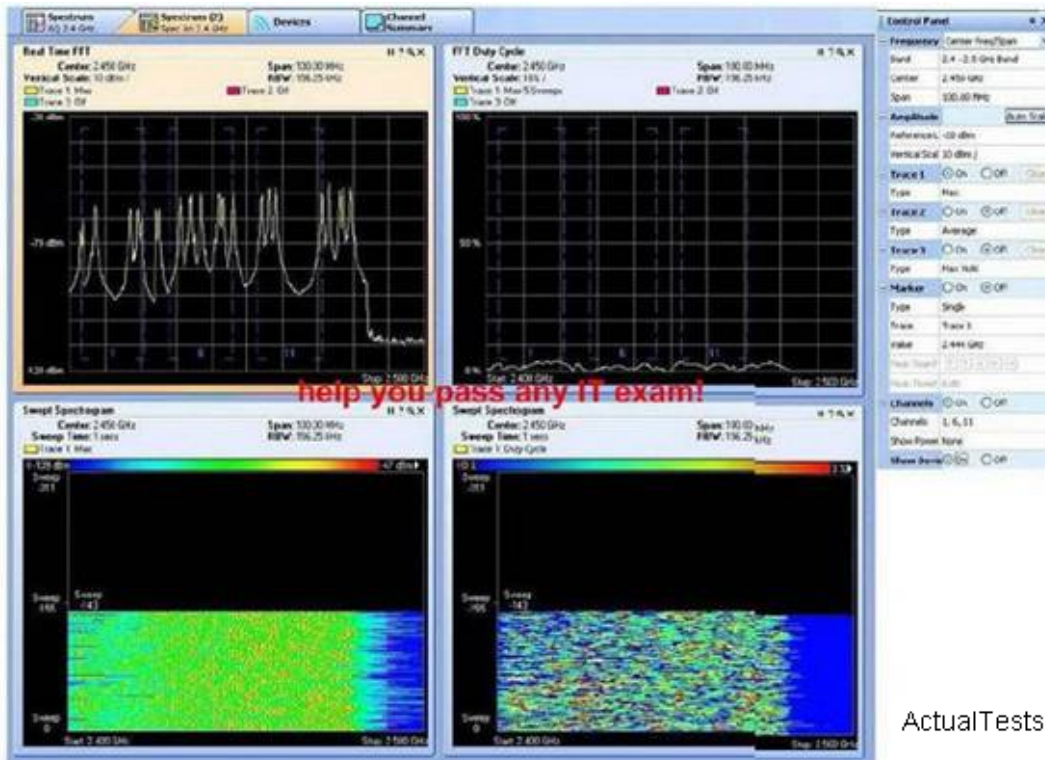
D. Its almost as cheap as Bluetooth to operate

**Answer: A**

**QUESTION NO: 203**

Study the exhibit carefully (click exhibit). You are deploying a site survey for a new implementation and see this information in Cisco Spectrum Expert. Which option is true?

Exhibit:



ActualTests

- A. The capture shows radar. It is most probably military radar because of the frequency hopping in the "Swept Spectrogram." The workaround is to disable DFS on the AP.
- B. There is general background noise of -70dBm, which is not an issue at all for an 802.11b/g deployment.
- C. The location of this capture is most likely near a kitchen, because it is clear that there is a microwave oven disrupting channel 1-13. There will be some packet loss while cooking, which is not a problem, because employees will not be working during lunch time.
- D. This is a typical Bluetooth pattern. The source needs to be identified and eliminated because it will affect an 802.11b/g deployment.

**Answer: D**