Certified Wireless Network Administrator

CWNP CWNA-106

Version Demo

Total Demo Questions: 20

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Topic Break Down

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QUESTION NO: 1

What activities are commonly performed as part of a post-deployment WLAN validation survey? (Choose 3)

A. Measure received signal level and SNR throughout the service area.

B. Measure channel utilization and identify RF contention.

C. Document AP locations and RF measurements on floor plans.

D. Create user accounts in the RADIUS database.

E. Select the organization's EAP authentication method.

ANSWER: A B C

Explanation:

A post-deployment validation survey measures the WLAN after APs have been installed and configured. Measuring received signal level, SNR, and channel utilization helps verify that coverage, signal quality, and RF capacity align with design requirements. Recording AP locations and observed RF measurements on floor plans also provides useful documentation for future troubleshooting and change management.

Validation surveys can identify coverage holes, excessive co-channel contention, unexpected attenuation, and interference that were not apparent during a predictive design. Selecting the enterprise authentication method or creating user accounts are WLAN configuration and identity-management tasks, not survey measurements. CWNP identifies site survey, validation, and RF analysis as essential WLAN administration skills; see the CWNA certification overview.

QUESTION NO: 2

When compared with legacy Power Save mode, how does VHT TXOP power save improve battery life for devices on a WLAN?

A. VHT TXOP power save allows stations to enter sleep mode and legacy Power Save does not.

B. VHT TXOP power save uses the partial AID in the preamble to allow clients to identify frames targeted for them.

C. Legacy Power Save mode was removed in the 802.11ac amendment.

D. VHT TXOP power save allows the WLAN transceiver to disable more components when in a low powerstate.

ANSWER: B

Explanation:

VHT TXOP power save uses the partial AID in the preamble to allow clients to identify frames targeted for them. This improves power efficiency because a VHT station can examine PHY-layer signaling early in a received PPDU, rather than remaining fully active long enough to process MAC-layer information for every transmission occurring during another station’s transmit opportunity. The partial association identifier is carried in the VHT signaling fields and lets an associated station quickly determine whether the transmission is intended for it. When the transmission is not relevant, the station can enter a doze state for the remainder of that TXOP, reducing receive-radio active time and therefore battery consumption. This is particularly useful with longer aggregated transmissions and TXOPs, where continually listening would otherwise consume significant power. The mechanism is part of the Very High Throughput operation introduced by IEEE 802.11ac and is designed to preserve interoperability while giving capable clients a more efficient way to decide when they need to stay awake. See the IEEE 802.11 standards overview at IEEE 802.11 and CWNP’s certification information at CWNA.

QUESTION NO: 3

What statements about passive scanning by an 802.11 client station are true? (Choose 3)

A. The client listens for Beacon frames transmitted by APs.

B. The client must transmit a broadcast Probe Request on every channel.

C. The client can obtain BSS capability information from received beacons.

D. The client changes channels and listens for a dwell interval on each channel.

E. The AP sends an ACK in response to each received beacon.

ANSWER: A C D

Explanation:

During passive scanning, a client station listens on supported channels for Beacon frames transmitted by APs. Beacon frames advertise information about a BSS, including capability information, supported rates, security information elements, and timing information. The station can use this information to identify WLANs that may be suitable for association.

A passively scanning station changes channels according to its scanning process and listens for a configured dwell time on each channel. Unlike active scanning, passive scanning does not require the client to transmit Probe Request frames. This distinction is significant on channels or in regulatory domains where a station must listen for beacons before initiating transmissions. See the IEEE 802.11 Working Group for 802.11 MAC and PHY standards information.

QUESTION NO: 4

In addition to throughput enhancements, what other improvements does a dual-band 802.11ac AP provide when compared with 802.11a/g APs? (Choose 2)

A. Introduces “fast transition” roaming protocols for VoWiFi phones

B. Better link reliability between 802.11a/b/g client devices and 802.11ac APs

C. Improves service quality for real-time applications at greater distances

D. Increases in receive sensitivity enhance RTLS location accuracy

E. Stronger security with more robust encryption modes.

ANSWER: C

Explanation:

Improves service quality for real-time applications at greater distances is the best answer because 802.11ac adds standardized transmit beamforming capabilities in the 5 GHz band. Beamforming enables an access point to use channel information from a client to steer or focus transmitted RF energy toward that client rather than radiating it uniformly in all directions. The improved signal conditions can support more reliable frame delivery and sustain higher usable data rates at locations where a conventional transmission would have a weaker signal or require more retransmissions. This is particularly valuable for latency- and jitter-sensitive services such as voice and video, since more dependable RF delivery helps preserve airtime efficiency and application quality as clients move farther from the AP. A dual-band 802.11ac AP also retains a 2.4 GHz radio for complementary coverage and legacy-client support, while its 5 GHz 802.11ac radio provides the beamforming-related service benefit described here. The IEEE 802.11ac amendment defines enhancements for very-high-throughput operation below 6 GHz, including multi-user and beamforming-related capabilities. See the IEEE 802.11ac standard overview and Cisco’s 802.11ac technology overview.

QUESTION NO: 5

As a station moves away from the access point to which it is associated, it changes its data rate from 600 Mbps to 540 Mbps and then to 450 Mbps.

What IEEE 802.11 term or phase is used to describe this functionality?

A. Dynamic Rate Switching

B. Multirate Control

C. Modulation and Coding Selection

D. Rate Set Selectivity

ANSWER: A

Explanation:

Dynamic Rate Switching is the IEEE 802.11 behavior in which a station dynamically adjusts its PHY data rate as RF conditions change. As the station moves farther from its associated access point, received signal strength commonly declines and the signal-to-noise ratio may become less favorable. The station's rate-selection algorithm responds by choosing progressively more robust transmission parameters, resulting in lower available data rates such as the transition from 600 Mbps to 540 Mbps and then 450 Mbps.

This adaptation is important because the highest data rate is not always the rate most likely to deliver frames successfully. Dynamic Rate Switching seeks an effective balance between PHY throughput and reliable frame delivery by responding to observed link conditions, including received signal quality and transmission success or failure. In HT and later PHYs, the selected rate reflects a modulation and coding scheme and related PHY characteristics, but the overall process of changing rates in response to changing RF conditions is termed Dynamic Rate Switching. This behavior is fundamental to 802.11 WLAN operation and helps preserve usable connectivity as clients move through varying coverage conditions. See the IEEE 802.11 working-group overview at IEEE 802.11 Working Group and CWNP's CWNA certification overview at CWNP CWNA.

QUESTION NO: 6

Return Loss is the decrease of forward energy in a system when some of the power is being reflected back toward the transmitter.

What will cause high return loss in an RF transmission system, including the radio, cables, connectors and antenna?

A. A Voltage Standing Wave Ratio (VSWR) of 1:1

B. An impedance mismatch between components in the RF system

C. The use of cables longer than onemeter in the RF system

D. High output power at the transmitter and use of a low-gain antenna

ANSWER: B

Explanation:

An impedance mismatch between components in the RF system is correct because RF energy transfers efficiently only when each element presents the impedance expected by the connected element. In common WLAN antenna systems, the radio, transmission line, connectors, and antenna are designed around a nominal 50-ohm impedance. A discontinuity in that impedance causes part of the incident RF wave to reflect back toward the transmitter instead of continuing toward the antenna. The magnitude of this reflection is expressed by return loss and is also related to the voltage standing wave ratio (VSWR). Poor connector installation, damaged coaxial cable, water intrusion, an incorrectly selected antenna, or a faulty antenna feed point can all create the mismatch responsible for reflected energy. In strict RF measurement terminology, a larger return-loss value in dB indicates a better match and less reflected power; the question uses "high return loss" to describe the undesirable reflected-energy condition. The underlying physical cause remains an impedance mismatch. RF engineers use return-loss and VSWR measurements to verify that a complete antenna system is properly matched before operation, protecting transmitter components and ensuring efficient delivery of power to the antenna. See CWNP CWNA certification information and Analog Devices' overview of VSWR and return loss.

QUESTION NO: 7

ABC Company has thousands of Wi-Fi users accessing their network on a daily basis. Their WLAN consists of 700 access points, 6 WLAN controllers, and a wireless network management system.

What network functions are performed by the enterprise-class WNMS? (Choose 3)

A. RF pre-deployment planning and post-deployment reporting of access point locations on a floor plan

B. Performance and security monitoring of WLAN controllers with alarms and notifications for administrative staff

C. Radio management, fast roaming, key caching, and othercentralized control plane operations

D. Centralized bridging of guest data traffic and application of firewall and QoS policies to data

E. Management of WLAN controller configuration and provisioning of firmware updates

F. Generating, encrypting, and decrypting 802.11 frames and collecting RF radio data.

ANSWER: A B E

Explanation:

An enterprise-class wireless network management system provides centralized visibility, administration, planning, and lifecycle management across a large WLAN deployment. **RF pre-deployment planning and post-deployment reporting of access point locations on a floor plan** is a core management capability: the platform can use maps, floor plans, and access-point placement information to support design validation, documentation, and ongoing RF operational analysis. **Performance and security monitoring of WLAN controllers with alarms and notifications for administrative staff** is also central to WNMS operation. The system gathers telemetry and events from managed infrastructure, presents health and performance information, and alerts administrators when defined thresholds or security-related conditions occur. Finally, **Management of WLAN controller configuration and provisioning of firmware updates** fits the WNMS role because enterprise management platforms provide centralized configuration templates, inventory, backups, compliance controls, and software-image management for controller and access-point fleets. These functions let a small operations team consistently administer hundreds of APs and multiple controllers rather than managing each device separately. CWNP identifies WLAN management, monitoring, and troubleshooting as important CWNA-level administrative competencies; see the CWNA certification overview. For an example of enterprise WLAN management capabilities such as monitoring, configuration, and software management, see Cisco Prime Infrastructure documentation.

QUESTION NO: 8

You were previously onsite at XYZ’s facility to conduct a pre-deployment RF site survey. The WLAN has been deployed according to your recommendations and you are onsite again to perform a post-deployment validation survey.

When performing this type of post-deployment RF site survey for VoWiFi, what are two steps that must be performed? (Choose 2)

A. Coverage analysis to verify appropriate coverage and roamingboundaries

B. Spectrum analysis to locate and identify RF interference sources

C. Frequency-band hopping analysis to detect improper RF channel implementations

D. Protocol analysis to discover channel use on neighboring APs

E. Application analysis with anactive phone call on a VoWiFi handset

ANSWER: A E

Explanation:

Coverage analysis to verify appropriate coverage and roamingboundaries is required because a VoWiFi validation survey must confirm that the installed WLAN delivers the RF conditions assumed in the design. The survey should verify usable signal strength, signal-to-noise ratio, channel overlap, and cell boundaries throughout the intended voice-service area. Of particular importance, the validated coverage pattern must support predictable client roaming so that a handset can transition between access points before the current connection becomes unusable. Voice calls are sensitive to gaps and poorly designed roaming boundaries because they can lead to packet loss, delay, jitter, or an interrupted call.

Application analysis with anactive phone call on a VoWiFi handset is also required because RF measurements alone do not prove the complete voice service works. An active call allows the surveyor to validate real client behavior while walking the intended roaming paths, including call continuity and practical voice quality during transitions. This confirms that the deployed RF design and the voice application operate together under real conditions. Cisco's voice WLAN guidance discusses validating coverage and roaming for voice endpoints, while CWNP identifies RF planning and validation as core WLAN-administration skills. See Cisco Voice over Wireless Design Guide and CWNP CWNA certification overview.

QUESTION NO: 9

What statements about OFDMA operation in an 802.11ax WLAN are true? (Choose 2)

A. It divides a channel into resource units that can be assigned to different stations.

B. An AP can use a Trigger frame to coordinate uplink OFDMA transmissions.

C. It requires all associated clients to use the same MCS.

D. It allocates the full channel to only one station during every transmission opportunity.

E. It eliminates all contention for access to the RF medium.

ANSWER: A B

Explanation:

OFDMA divides a channel into resource units (RUs) that can be assigned to different stations. This allows an AP to schedule multiple users within one channel during an uplink or downlink transmission opportunity. Compared with allocating the entire channel to one station for every transmission, OFDMA can improve efficiency for environments with many clients sending relatively small frames.

In uplink OFDMA, the AP can use a Trigger frame to coordinate simultaneous client transmissions in their assigned RUs. OFDMA does not require every client to transmit at the same MCS, and it does not eliminate the need for channel access coordination. The Wi-Fi Alliance provides an overview of Wi-Fi 6, which is based on 802.11ax, at Wi-Fi CERTIFIED 6.

QUESTION NO: 10

What conditions can significantly increase airtime consumption in an 802.11 BSS? (Choose 3)

A. Client frames transmitted at low PHY data rates

B. Repeated retransmission of unicast data frames

C. Management and control frame exchanges

D. Increasing the AP wired uplink from 1 Gbps to 2.5 Gbps

E. Reducing the DHCP lease time on the client VLAN

ANSWER: A B C

Explanation:

Frames transmitted at low data rates consume more airtime because the radio must occupy the channel longer to send the same amount of information. This affects both user data and management or control traffic sent at basic rates. Retransmitted frames also consume additional airtime because each retry requires another transmission opportunity and, for unicast traffic, typically another acknowledgment exchange.

Management and control frames consume airtime as well. Beacons, probe responses, acknowledgments, RTS/CTS exchanges, and other required MAC traffic share the same half-duplex RF medium as user data. In contrast, increasing the capacity of an AP's wired Ethernet uplink does not by itself reduce RF airtime consumed over the wireless channel. See the IEEE 802.11 Working Group for information about 802.11 MAC operation.

QUESTION NO: 11

When compared with legacy Power Save mode, how does VHT TXOP power save improve battery life for devices on a WLAN?

A. VHT TXOP power save allows stations to enter sleep mode and legacy Power Save does not.

B. VHT TXOP power save uses the partial AID in the preamble to allow clients to identify frames targeted for them.

C. Legacy Power Save mode was removed in the 802.11ac amendment.

D. VHT TXOP power save allows the WLAN transceiver to disable more components when in a low power state.

ANSWER: B

Explanation:

VHT TXOP power save uses the partial AID in the preamble to allow clients to identify frames targeted for them. In 802.11ac Very High Throughput operation, the VHT-SIG-A portion of the PHY preamble includes receiver-identification information, including a partial association ID for a single-user transmission (and Group ID information for multi-user operation). A VHT station that supports TXOP power save can examine this early signaling and determine whether it needs to remain awake for the ongoing transmission opportunity. When the transmission is not intended for that station, it can enter a doze state for the remainder of the TXOP rather than keeping its receiver active merely to inspect subsequent MAC frames. This reduces time spent powering the receive chain and related processing circuitry, which lowers battery consumption. The benefit is especially meaningful when another station is using a lengthy TXOP, since uninvolved stations can avoid unnecessary receive activity while still returning to an awake state when the TXOP ends. VHT TXOP power save therefore supplements the normal 802.11 power-management behavior with faster, PHY-assisted identification of relevant transmissions. See the IEEE 802.11 working-group overview at IEEE 802.11 Working Group and the 802.11ac amendment information at IEEE 802.11ac.

QUESTION NO: 12

Your consulting firm has recently been hired to complete a site survey for a company. Your engineers use predictive modeling software for surveying, but the company insists on a pre-deployment site visit.

What tasks should be performed as part of the pre-deployment visit to prepare for a predictive survey? (Choose 2)

A. With a spectrum analyzer, identify the type, amplitude, and location of RF interference sources, if any are present.

B. Evaluate the building materials at ABC’s facility and confirm that the floor plan documents are consistent with the actual building.

C. Test several antenna types connected to the intended APs for use in the eventual deployment.

D. Collect information about the company’s security requirements and the current configuration of their RADIUS and user database servers.

E. Install at least one AP on each side of the exterior walls to test for co-channel interference through these walls.

ANSWER: A B

Explanation:

“With a spectrum analyzer, identify the type, amplitude, and location of RF interference sources, if any are present” is a core pre-deployment activity because predictive designs model Wi-Fi propagation but cannot reliably infer real-time, non-Wi-Fi RF energy in the environment. A spectrum-analysis walk-through establishes whether interference sources are present, where they operate, and how strong they are. That information helps the designer make sound channel, band, AP-placement, and mitigation decisions before the installation is finalized. CWNP identifies spectrum analysis as the method for detecting and characterizing RF interference: CWNA certification overview.

“Evaluate the building materials at ABC’s facility and confirm that the floor plan documents are consistent with the actual building” is equally essential. Predictive-survey accuracy depends on an accurate RF model, including correct scale, wall locations, floor layouts, ceiling height, and attenuation characteristics of materials such as drywall, concrete, glass, and metal. A pre-deployment visit validates these assumptions and identifies physical features that drawings may omit or represent incorrectly. The resulting model can therefore use appropriate attenuation values and AP locations that reflect the actual facility rather than an idealized plan. Ekahau also emphasizes validating floor plans and modeling building materials as inputs to predictive Wi-Fi designs: What Is a Predictive Wi-Fi Site Survey?.

QUESTION NO: 13

In an 802.11 2.4 GHz system, what 22 MHz channels are considered non-overlapping? (Choose 2)

A. Channels 5 and 10

B. Channels 1 and 5

C. Channels 3 and 7

D. Channels 2 and 8

E. Channels 8 and 11

F. Channels 10 and 13

ANSWER: A D

Explanation:

Channels 5 and 10 and Channels 2 and 8 are non-overlapping 22 MHz channel pairs because their center frequencies are separated sufficiently to prevent their 22 MHz-wide transmissions from overlapping. In the 2.4 GHz band, adjacent 802.11 channel center frequencies are separated by only 5 MHz. A 22 MHz channel therefore requires at least five channel numbers of separation, or 25 MHz between center frequencies, to avoid overlap. Channels 5 and 10 are separated by five channel numbers, yielding 25 MHz of center-frequency separation. Channels 2 and 8 are separated by six channel numbers, yielding 30 MHz of separation. Both pairs consequently provide at least the minimum separation needed for non-overlapping operation when using 22 MHz channels. This principle is the basis for traditional 2.4 GHz channel planning: select access-point channels with enough center-frequency spacing that simultaneous transmissions do not create adjacent-channel interference. Regulatory-domain channel availability can affect which channel numbers may be deployed, but it does not change the required spacing relationship for 22 MHz channels. See the CWNA certification overview and Cisco's 2.4 GHz channel deployment guidance.

QUESTION NO: 14

An 802.11 station receives a unicast data frame addressed to it and successfully validates the FCS. What control frame does the station normally transmit after waiting a SIFS?

A. ACK

B. RTS

C. CTS

D. Probe Response

E. CF-End

ANSWER: A

Explanation:

ACK is correct. IEEE 802.11 uses positive acknowledgments for most unicast data transmissions. After receiving a valid unicast frame, the destination station waits a Short Interframe Space (SIFS) and transmits an ACK control frame. The sender treats receipt of the ACK as confirmation that the frame arrived successfully.

SIFS is shorter than the contention-related interframe spaces used by other stations, allowing the immediate response to take priority over new contention. Broadcast and multicast frames are not acknowledged because several receiving stations could otherwise respond simultaneously. See the IEEE 802.11 standard page for WLAN MAC specifications.

QUESTION NO: 15

Which unit of measurement is an absolute unit that is used to quantify power levels on a linear scale?

A. dBm

B. SNR

C. RSSI

D. VSWR

E. mW

ANSWER: E

Explanation:

Milliwatts (mW) is the correct absolute, linear unit for quantifying power. A watt is the SI-derived unit of power, representing energy transferred or consumed per unit of time, and a milliwatt is one-thousandth of a watt. Because mW expresses power directly, proportional changes remain linear: 2 mW is twice the power of 1 mW, and 100 mW is ten times the power of 10 mW. This makes milliwatts useful when calculating or comparing actual transmitter output, receiver input, cable loss, amplifier gain, and antenna-system power budgets.

Wireless networking commonly uses both mW and dBm. The two can represent the same physical power, but they express it differently: mW is linear, while dBm is a logarithmic expression referenced to 1 mW. For example, 1 mW corresponds to 0 dBm, while 100 mW corresponds to 20 dBm. Understanding this distinction is essential for CWNA-level RF calculations because gains and losses are conveniently combined in dB or dBm, whereas the underlying absolute power may be expressed in milliwatts. See the NIST explanation of the watt and Cisco's RF power and dBm reference.

QUESTION NO: 16

What answer correctly completes the following sentence?

____________ and physical carrier sense functions are used to determine if the wireless medium is busy.

A. Backup

B. Passive

C. Virtual

D. Active

ANSWER: C

Explanation:

Virtual is correct. IEEE 802.11 stations use both physical carrier sense and virtual carrier sense as part of the CSMA/CA medium-access process. Physical carrier sense uses the radio to evaluate the channel directly, including detecting RF energy and determining whether a valid 802.11 transmission is being received. Virtual carrier sense supplements this by using the Network Allocation Vector (NAV), a timer maintained by each station. A station sets its NAV based on duration information carried in applicable 802.11 frame headers, indicating how long the medium has been reserved for an exchange. While the NAV is nonzero, the station treats the wireless medium as busy and defers contention even if its own radio does not currently detect a signal. This mechanism helps coordinate access among stations that may hear control or reservation information but cannot reliably hear every transmitter involved in the exchange. Together, virtual and physical carrier sensing provide the information a station needs before attempting transmission, supporting collision avoidance on a shared half-duplex wireless medium. The IEEE 802.11 standard defines the NAV as a virtual carrier-sense mechanism; its terminology is also reflected in CWNP's discussion of CSMA/CA and medium access. See [IEEE 802.11 Working Group standard information]() and [CWNP CWNA certification overview]().

QUESTION NO: 17

The IEEE 802.11a/n/ac physical layer technologies utilize the 5 GHz frequency band. What is true of the channels in this frequency spectrum?

A. 14 channels are available worldwide.

B. 11 channels are available worldwide.

C. Regulatory domains worldwide require DFS and TPC in all these channels.

D. DFS may be required in some regulatory domains on some channels.

E. 802.11 channels are separated by 5 MHz.

ANSWER: D

Explanation:

DFS may be required in some regulatory domains on some channels. Dynamic Frequency Selection is a coexistence mechanism used in portions of the 5 GHz spectrum shared with radar systems. An access point operating on a DFS channel must monitor for radar signals and, if radar is detected, stop using that channel and move wireless operation to another permissible channel. Requirements are not uniform across the entire 5 GHz band or across every country: the channels available and the channels designated for DFS depend on the applicable regulatory domain. This makes DFS an important deployment consideration when selecting 5 GHz channels, particularly where radar-protected frequency ranges are available or required for capacity planning. Transmit Power Control is often associated with DFS in particular regional rules, but it is not universally required on every 5 GHz channel worldwide. Channel availability also varies by country, so there is no single worldwide count of available 5 GHz Wi-Fi channels. The IEEE 802.11 standard describes DFS operating requirements for wireless LAN equipment, while regulators define the permitted bands and regional constraints. See the FCC's [5 GHz U-NII operating rules]() and the [IEEE 802.11 working-group resources]().

QUESTION NO: 18

What can cause an excessively high VSWR (Voltage Standing Wave Ratio) in a WLAN RF transmission line?

A. An impedance mismatch inthe RF cables and connectors

B. Reflected direct current (DC) voltage on the main RF signal line

C. Attenuation of the RF signal as it travels along the main signal path

D. Crosstalk (inductance) between adjacent RF conductors

ANSWER: A

Explanation:

An impedance mismatch in the RF cables and connectors can cause an excessively high VSWR because VSWR measures the standing waves created when some of the transmitted RF energy is reflected back toward the source. WLAN transmission systems are designed around a nominal characteristic impedance, typically 50 ohms for RF coaxial cables, connectors, access-point antenna ports, lightning arrestors, and antennas. If a component is damaged, improperly installed, poorly terminated, incompatible, or has a different impedance, the impedance discontinuity reflects part of the forward signal. The interaction of forward and reflected waves produces voltage maxima and minima along the line, expressed as VSWR. A higher ratio means greater reflected power and less efficient transfer of RF energy from the transmitter to the antenna. In practical WLAN installations, technicians use a cable/antenna analyzer to identify elevated VSWR and locate faults such as loose connectors, water intrusion, bent center pins, damaged coax, or a defective antenna. Maintaining properly matched

50-ohm components and correctly installed connectors minimizes reflections and protects transmitter performance. See [CWNP CWNA certification information] and Rohde & Schwarz's [VSWR overview].

QUESTION NO: 19

As you prepare for a site survey in a multi-floor corporate office, you have learned about several wireless devices that support connection-oriented, real-time applications. These applications are sensitive to service interruptions and require excellent signal quality, low latency, and low loss. For that reason, it is important to identify sources of RF interference as well as building characteristics that would cause RF blockage or dead spots.

What systems or environmental characteristics are most likely to cause interference or RF blockage and disrupt service for these applications? (Choose 2)

A. Microwave ovens

B. Narrow hallways

C. Elevator shafts

D. RFID chokepoints

E. Workspace dividers

ANSWER: A C

Explanation:

Microwave ovens are a significant site-survey concern because they can emit RF energy in the 2.4 GHz ISM band while operating. This is the same unlicensed band used by 2.4 GHz Wi-Fi, so a nearby operating microwave can raise the noise floor, reduce signal-to-noise ratio, and cause retries or packet loss. These effects are particularly disruptive to real-time, connection-oriented traffic such as voice and video, which is sensitive to delay, jitter, and loss. CWNP survey practice therefore includes identifying intermittent interference sources and testing during normal building operation.

Elevator shafts are also important because their construction commonly includes substantial metal, concrete, and mechanical infrastructure. These materials attenuate and reflect RF energy, creating shadowed areas, unpredictable propagation, and potential coverage gaps around shafts and adjacent floors. In a multistory office, the shaft may affect both horizontal and vertical RF behavior, so it should be considered during predictive design and validated during onsite measurements. Cisco's [site survey guidelines] discuss evaluating interference and physical obstructions, while the [Wi-Fi Alliance overview] describes Wi-Fi operation in shared spectrum.

QUESTION NO: 20

What features are most often configurable within 802.11 WLAN client utilities? (Choose 2)

A. Frame generator utility

B. Power management

C. Co-channel interference threshold

D. Security settings, including encryption keys

ANSWER: B D

Explanation:

Power management is commonly exposed in WLAN client utilities because the client device controls its own radio power-saving behavior. Typical utility or operating-system WLAN settings can select power-saving policies that balance battery life against latency, throughput, and responsiveness while associated with an access point. These choices influence when the station sleeps and wakes to receive buffered traffic, making them practical client-side configuration items.

Security settings, including encryption keys, are also routinely configured through a client utility or its associated WLAN profile. A user or administrator may choose the network's authentication and encryption methods and provide the required credential material, such as a pre-shared key. The AES algorithm's block size itself is not a user-tunable WLAN setting, so the option has been clarified to accurately describe the configurable security information. Microsoft's WLAN profile schema documents client-profile elements for authentication, encryption, and shared-key material: WLAN profile schema. CWNP's CWNA certification scope also includes client configuration, WLAN security, and 802.11 operation: CWNA certification.