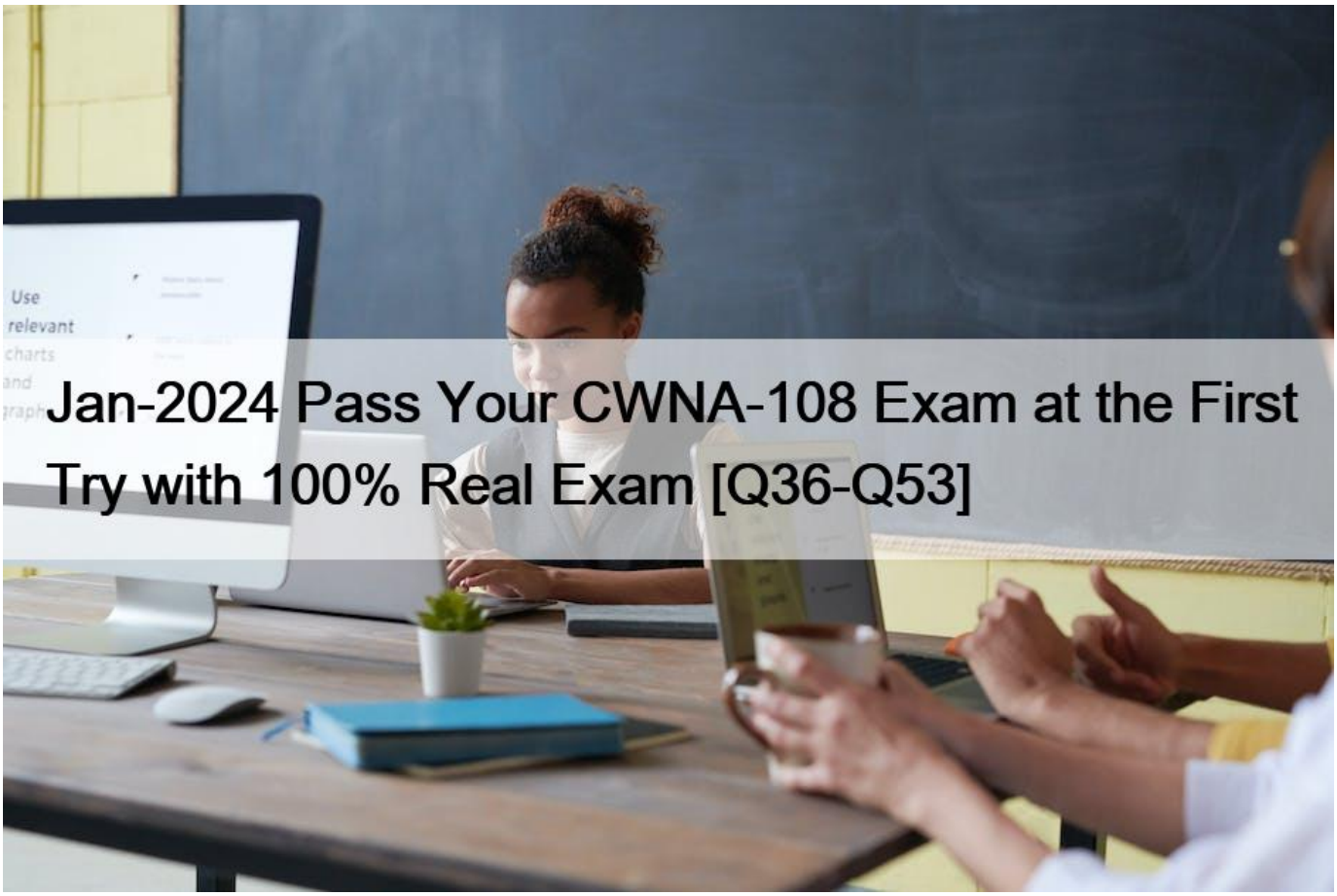
Jan-2024 Pass Your CWNA-108 Exam at the First Try with 100% Real Exam [Q36-Q53



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Q36. A WLAN is implemented using wireless controllers. The APs must locate the controllers when powered on and connected to the network. Which one of the following methods is commonly used to locate the controllers by the APs?
* NTP
* DHCP
* SNMP
* GRE
Explanation

DHCP (Dynamic Host Configuration Protocol) is a commonly used method to locate the controllers by the APs in a WLAN that is implemented using wireless controllers. DHCP is a protocol that allows a device to obtain an IP address and other network configuration parameters from a server. In a wireless controller scenario, the APs can use DHCP to request an IP address from a DHCP server, which can also provide the IP address or hostname of the wireless controller as an option in the DHCP response. This way, the APs can discover the wireless controller and establish a connection with it. Alternatively, the APs can also use other methods to locate the wireless controller, such as DNS (Domain Name System), broadcast or multicast discovery, or manual

configuration. References: 1, Chapter 8, page 309; 2, Section 5.2

Q37. You are a small business wireless network consultant and provide WLAN services for various companies. You receive a call from one of your customers stating that their laptop computers suddenly started experiencing much slower data transfers while connected to the WLAN. This company is located in a multi-tenant office building and the WLAN was designed to support laptops, tablets and mobile phones. What could cause a sudden change in performance for the laptop computers?
* The sky was not as cloudy that day as it typically is and the sun also radiates electromagnetic waves.
* A new tenant in the building has set their AP to the same RF channel that your customer is using.
* The antennas in the laptops have been repositioned.
* A few of your customer’s users have Bluetooth enabled wireless headsets.

Explanation

A possible cause of a sudden change in performance for the laptop computers is that a new tenant in the building has set their AP to the same RF channel that your customer is using. This can create co-channel interference (CCI), which is a situation where two or more APs or devices use the same or overlapping channels in the same area. CCI can degrade the performance of WLANs by increasing contention, collisions, retransmissions, and latency. CCI can also reduce the effective range and throughput of WLANs by lowering the signal-to-noise ratio (SNR). To avoid or mitigate CCI, it is recommended to use non-overlapping channels, adjust transmit power levels, or implement channel management techniques such as dynamic frequency selection (DFS) or load balancing. The sky condition, antenna position, or Bluetooth headset are not likely to cause a sudden change in performance for the laptop computers. References: [CWNP Certified Wireless Network Administrator Official Study Guide: Exam CWNA-107], page 81; [CWNA: Certified Wireless Network Administrator Official Study Guide: Exam CWNA-106], page 71.

Q38. Your manager asked you to locate a solution that allows for centralized monitoring of WLAN performance over time. He wants a single pane of glass for administration and monitoring of the solution. What do you recommend?
* AP-based spectrum analysis
* Laptop based spectrum analyzers
* Overlay WLAN monitoring solution
* laptop-based protocol analyzers

Q39. You are managing a wireless access point in autonomous mode using the Web based interface. You capture traffic during this management task and notice that you can see the HTML code of the Web pages used for access point management. What error in administration could be the cause of this security concern?
* IPsec is not in use of the management connection as recommended
* A VPN with the AP is not established
* WPA2 is disabled on the WLAN
* HTTP is in use instead of HTTPS

Explanation

The error in administration that could be the cause of this security concern is that HTTP is in use instead of HTTPS. HTTP is an unencrypted protocol that transfers data in plain text over the network. This means that anyone who captures the traffic can see the HTML code of the Web pages used for access point management, as well as any sensitive information such as passwords or configuration settings. HTTPS is an encrypted protocol that uses SSL/TLS to secure the data transmission between the Web browser and the Web server.

HTTPS prevents anyone from snooping on or tampering with the Web traffic. Therefore, HTTPS should always be used for Web based management of wireless access points, especially in autonomous mode where there is no centralized controller to enforce security policies. References: [CWNP Certified Wireless Network Administrator Official Study Guide: Exam CWNA-107], page 431; [HTTP vs HTTPS: What’s The Difference And Why Should You Care?].

Q40. When an ACK frame is not received by the transmitting STA, what is assumed?

* The receiver processed the frame, but did not respond with an ACK frame because 802.11w is enabled
* The frame was correctly delivered
* The frame was not delivered and must be retransmitted
* The receiver is offline

Q41. When using a spectrum to look for non Wi-Fi interference sources, you notice significant interference across the entire 2.4 GHz band (not on a few select frequencies) within the desktop area of a users workspace, but the interference disappears quickly after just 2 meters. What is the most likely cause of this interference?
* USB 3 devices in the user’s work area
* Bluetooth devices in the user’s work area
* Excess RF energy from a nearby AP
* Unintentional radiation from the PC power supply

Q42. Which data rate is supported by 802.11g radios that is not supported by 802.11a radios?
* 9 Mbps
* 11 Mbps
* 12 Mbps
* 54 Mbps
* 65 Mbps
* 130 Mbps

Q43. A non-802.11 device is suspected of causing interference on the WLAN. You are not certain of the location or type of device. What is the best solution for locating this non-802.11 device?
* Access point spectrum analyzer
* Laptop-based spectrum analyzer with an omni-directional antenna
* Laptop-based spectrum analyzer with an omni-directional antenna
* Laptop-based spectrum analyzer with a directional antenna

Q44. Which of the following frequency ranges are specified for use by IEEE 802.11 radios? (Choose all that apply.)
* 902 – 928 MHz
* 2.4000 – 2.4835 GHz
* 5.15 – 5.25 GHz
* 5.470 – 5.725 GHz
* 5.725 – 5.875 GHz

Q45. A client complains of low data rates on his computer. When you evaluate the situation, you see that the signal strength is -84 dBm and the noise floor is -96 dBm. The client is an 802.11ac client and connects to an 802.11acAP. Both the client and AP are 2×2:2 devices.

What is the likely cause of the low data rate issue?
* Weak signal strength
* Too few spatial streams
* Lack of support for 802.11n
* CAT5e cabling run to the AP

Q46. What cipher suite is specified by the 802.11-2016 standard and is not deprecated?
* Wired Equivalent Privacy
* Temporal Key Integrity Protocol
* Counter Mode with CBC-MAC Protocol
* Extensible Authentication Protocol

Q47. The center frequency of channel 1 in the 2.4 GHz band is 2.412 GHz (2412 MHz). What is the center frequency of channel 4?
* 2.427
* 2.422
* 2.413
* 2.417

Explanation

The center frequency of channel 4 in the 2.4 GHz band is 2.427 GHz (2427 MHz). The center frequency of a channel is the midpoint of its frequency range, where the signal strength is highest and most concentrated. The center frequency of channel 1 in the 2.4 GHz band is 2.412 GHz (2412 MHz), as given in the question. The center frequency of each subsequent channel is obtained by adding 5 MHz to the previous channel’s center frequency, since the channels are spaced 5 MHz apart from each other in this band. Therefore, to find the center frequency of channel 4, we need to add 15 MHz (5 MHz x 3) to the center frequency of channel 1:

2.412 GHz + 0.015 GHz = 2.427 GHz

Alternatively, we can use a formula to calculate the center frequency of any channel in the 2.4 GHz band:

Center frequency (GHz) = 2.407 + (0.005 x Channel number)

Using this formula for channel 4, we get:

Center frequency (GHz) = 2.407 + (0.005 x 4)

Center frequency (GHz) = 2.407 + 0.02

Center frequency (GHz) = 2.427 References: 1, Chapter 3, page 85; 2, Section 3.2

Q48. The network administrator at XYZ Company recently attended a training class on wireless security and realized that he should update the corporate security policy to address WLAN technology. The network administrator is listing the items that should be addressed in the security policy update, and has asked for your input.

What WLAN topics should be addressed by a company security policy? (Choose 3)
* Theft prevention and data security of WLAN infrastructure devices
* Wireless intrusion monitoring and response procedures
* WLAN performance analysis baseline documentation
* Wired network performance analysis and baseline documentation
* Training of the IT staff on WLAN operational security
* User density planning and AP client association thresholds

Q49. What statement is true concerning the use of Orthogonal Frequency Division Multiplexing (OFDM) modulation method in IEEE 802.11 WLANs?
* OFDM implements BPSK modulation to allow for data rates up to 7 Gbps.
* OFDM was first introduced in 802.11a and is used by the ERP, HT and VHT PHYs as well.
* OFDM modulation is used only in 5 GHz 802.11 transmissions.
* OFDM was used by Frequency Hopping Spread Spectrum (FHSS) PHY devices.

Q50. You are attempting to locate the cause of a performance problem in two WLAN cells in a mostly overlapping coverage area. You note that one AP is on channel 1 and the other is on channel 2. When you document your findings, what term do you use to describe the problem in this configuration?

* CCC
* Non-Wi-Fi interference
* CCI
* ACI

Explanation

The term used to describe the problem in this configuration is Co-Channel Interference (CCI)1. CCI occurs when multiple access points are on the same or overlapping channels, causing interference and degradation in network performance1. In this case, one AP is on channel 1 and the other is on channel 2, which are overlapping channels, leading to CCI1.

Q51. You are deploying a WLAN with the access points configured for 10 mW of output power on the

2.4 GHz radios and 20 mW of output power on the 5 GHz radios. Some semi- directional antennas are also in use. What kind of deployment is described?

* High density
* SOHO
* Standard office
* Residential

Q52. What feature(s) are most likely to be supported by 802.11 enterprise-class WLAN controllers?

(Choose 4)

* Link aggregation / port trunking
* 802.1p and DSCP QoS
* BGP and Frame Relay
* Captive web portals
* IGMP snooping

Q53. XYZ Corporation is experiencing connectivity problems with their existing building-to-building bridge link. A concrete wall on the roof of one building is partially blocking the Fresnel Zone, and the connection is dropping many frames. The administrator moves the antenna to an area not obstructed by the concrete wall and then realizes the RF cable cannot reach the new location.

If an extension cable is added to move the antenna, what are the likely results?

* The data throughput rate will increase because VSWR will decrease.
* The Equivalent Isotropically Radiated Power (EIRP) will decrease.
* The antenna’s azimuth beamwidth will decrease.
* The size of the Fresnel zone will increase.
* The likelihood of a direct lightning strike will increase.