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## **問題集**

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**Exam** : **PW0-104**

**Title** : Wireless LAN Administration  
Exam

**Version** : Demo

- 1.What word describes the bending of an RF signal as it passes between mediums of different density?
- A.Diffraction
  - B.Reflection
  - C.Refraction
  - D.Diffusion
  - E.Scattering

Answer:C

- 2.Which units of measure are used to describe relative power level changes?
- A.dBm
  - B.dBi
  - C.dB
  - D.mW
  - E.dBW

Answer:B C

- 3.The IEEE 802.11-2007 standard specifies mandatory support of the \_\_\_\_\_ cipher suite for Robust Security Network Associations, and optional use of the \_\_\_\_\_ cipher suite, designed for use with pre-RSNA hardware.

- A.CCMP, TKIP
- B.802.1X/EAP, WEP
- C.TLS, SSL
- D.CCKM, WPA
- E.PMK, GMK

Answer:A

- 4.The 802.1X framework provides \_\_\_\_\_ using EAP for \_\_\_\_\_ and very often providing \_\_\_\_\_.

- A.Dynamic encryption keys, authorization to network resources, authentication of client stations
- B.Authorization of access points, authentication of client stations, rotating encryption keys
- C.Access to network resources, authentication of network users, dynamic data encryption
- D.Port-based access control, mutual authentication between client stations and access points, management frame protection
- E.Authentication of network users, flexible data encryption, authorization of network resources
- F.Identity services, client remediation, guest access services

Answer:C

- 5.What is an advantage of using WPA2-Personal instead of WEP-128 as a security solution for 802.11 networks?

- A.WPA2-Personal uses 802.1X/EAP for authentication, and WEP-128 uses preshared keys.
- B.WPA2-Personal is based on IEEE 802.11 industry standards, but WEP is not.
- C.WPA2-Personal uses CCMP for encryption, and WEP-128 uses TKIP for encryption.
- D.Each station using WPA2-Personal uses a unique encryption key to encrypt data, but WEP-128 stations all use the same encryption key.
- E.Only users that know the preshared key can view other stations' encrypted data when WPA2-Personal is in use. With WEP-128, this is not possible.

Answer:D

- 6.Given: ABC Company performs top-secret government contract work and has recently purchased an

802.11 Wireless Intrusion Prevention System (WIPS) to enforce their "NO WIRELESS" network security policy. What attack will not be recognized by the WIPS?

- A.Deauthentication
- B.MAC Spoofing
- C.Protocol Jamming
- D.Eavesdropping
- E.RF Jamming

Answer:D

7.Given: Network users at a large machinery manufacturer have been asking the network administrator to implement an indoor WLAN. The network administrator and the network manager have called a meeting of several senior management personnel to discuss WLAN implementation before taking any site survey or implementation steps. The first order of discussion in the meeting is corporate policy concerning implementation and use of WLAN technology. What specific topics are appropriate in this policy meeting?

- A.Security risks and audits
- B.Government regulations
- C.User productivity impact
- D.Antenna types that should be used
- E.Permits and zoning requirements
- F.Vendor hardware recommendations

Answer:A B C

8.Given: The network administrator at XYZ Company recently attended a training class on wireless security and realized that he still needs to update the corporate security policy to address WLAN technology. The network administrator is trying to remember some of the items that should be addressed in the security policy update, and has asked you to help. What topics would you suggest for the security policy update?

- A.Physical security of WLAN infrastructure devices
- B.Wireless intrusion monitoring and response procedures
- C.WLAN protocol analysis baseline documentation
- D.Strong password requirements for users and infrastructure equipment
- E.Training of the IT staff on WLAN operational security

Answer:A B D E

9.Given: Before performing a site survey for a hospital, the network manager notifies you that there is a connection-oriented, real-time medical application used across the hospital's wired network. This application will also be used on the WLAN once it is installed. Because the application is real-time, it is sensitive to service disruptions and latency. For this reason, it is particularly important to locate sources of RF interference, blockage, and dead spots. What can put the application at risk of time-outs?

- A.High patient density in a given area
- B.Long hallways
- C.Elevator shafts
- D.Metal mesh glass
- E.Intercom system

Answer:C D

10.Given: ABC Company has hired you to perform an indoor site survey of their 7-story facility. ABC Company rents out unused space in their building to other companies, and the other companies use

802.11 WLANs already. ABC Company wants all of the offices they occupy to be surveyed as part of the project. What actions should be recommended as part of the site survey project?

- A.Keep all ABC Company doors closed during the site survey.
- B.Find out if ABC Company's Ethernet switches support PoE.
- C.Locate wiring closets on each floor of ABC Company's building.
- D.Identify areas where ABC Company's AP signals should not reach.
- E.Inventory all current access points within ABC Company's building.

Answer:B C

11.Given: You are an independent contractor, hired to perform an indoor site survey for ABC Hotel. The network will support both hotel staff and guest users. You are interviewing the network manager to gather business, performance, and security requirements for the future 802.11 WLAN. What questions should you ask the IT manager?

- A.What are the aesthetic requirements for access point and sensor placement?
- B.What type of layer-2 security does the guest network profile require?
- C.Where are the RF dead zones located within the facility?
- D.What types of client devices will connect to the WLAN infrastructure?
- E.Are there any RFID tags in use at the hospital that would conflict with the WLAN?

Answer:A D

12.Given: XYZ Company is planning to install a new 802.11 WLAN, but wants to upgrade its wired infrastructure first to provide the best user experience possible. XYZ has hired you to perform the RF site survey. During the interview with the network manager, you are told that the new Ethernet edge switches will support VoIP phones and 802.11 access points, both using 802.3-2005, Clause 33 compliant PoE. After hearing this information, what immediate concerns do you note?

- A.VoIP phones and 802.11 access points should never be powered by the same edge switch due to distortion.
- B.The edge Ethernet switches will need to support 802.3at PoE in order to support both access points and VoIP phones.
- C.VoIP phones can only be powered using PoE up to 50 meters while 802.11 access points can be powered using PoE up to 100 meters.
- D.The power budget in the edge switches must be carefully planned and monitored.

Answer:D

13.Given: A 802.11 WLAN transmitter that emits an 80 mW signal is connected to a cable with 3 dB loss. The cable is connected to an antenna with a 16 dBi gain. What is the resultant antenna power output (EIRP)?

- A.160 mW
- B.320 mW
- C.800 mW
- D.1200 mW
- E.1600 mW

Answer:E

14.When performing a site survey for a Multiple Channel Architecture (MCA) system in a multi-tenant building with six floors, what aspect should you, as the site surveyor, keep in mind?

- A.All doors in the entire building should be open during the site survey.
- B.The omni-directional antennas of the access points should be oriented parallel to the floor to maximize

the coverage pattern across as many floors as possible.

C.The channel reuse pattern should be three dimensional with the RF cell extending coverage of each access point to only one floor above and one floor below.

D.The Fresnel Zone is completely blocked between floors so each floor is considered a separate site survey.

Answer:C

15.When performing an RF site survey, what are three types of analysis that should be performed?

A.Associative analysis

B.Coverage analysis

C.Spectrum analysis

D.Hidden node analysis

E.Protocol analysis

F.Capacity analysis

Answer:B C F

16.When performing an RF site survey for a WLAN system deployment that will include VoWiFi handsets, what special technique should be considered?

A.AP output power should be maximized for maximum coverage

B.The number of directional antennas should be maximized to reduce the noise floor and co-channel interference.

C.All cell edges should be at least 15 dB above the noise floor

D.AP antennas should be down-tilted between 5 and 15 degrees

E.AP spacing should yield at least 50% cell overlap

Answer:B

17.Given: ABC Company has hired you to perform an initial site survey on their facility. During an interview the network manager informs you that the new wireless network must use UNII bands and OFDM, and VoWiFi handsets will be used extensively over the wireless network. What items do you need to include in the RF site survey report?

A.A heat map illustrating coverage for areas where mobile users may roam

B.VoWiFi call capacity information for each AP

C.VoWiFi handset security parameters

D.VoWiFi handset connectivity test results

E.DFS compliance information for each AP

Answer:A D

18.As part of a manual RF site survey report, what are the best methods for documenting "dead spots" in an area covered by an indoor 802.11 WLAN?

A.Showing the dead spots to the network administrator in person

B.Marking the dead spots with markers, flags, or other visible indicators

C.Dead spots should not be recorded in a site survey report

D.Manually marking the dead spots on the floor plan

E.Taking digital photographs of dead spots and giving them to end users

F.Using a heat map overlaying the floor plan

Answer:D F

19.When verifying a VoWiFi deployment site survey using a VoWiFi handset, which aspect is most important?

- A.Placing the handset in active survey mode rather than passive survey mode
- B.Testing a constant conversation while roaming from area to area
- C.Enabling QoS features on the handset
- D.Enabling WPA2 authentication and encryption as a worst-case throughput scenario
- E.Holding the handset vertically while recording signal strength and data rate

Answer:E

20.Given: You are being interviewed by ABC Company for a possible position as a wireless site survey engineer. The interviewing manager asks you what items should be included in a manual RF site survey report. What is your response?

- A.Cost estimate of the WLAN equipment required to cover the facility
- B.RF heat map illustrating coverage for each frequency band
- C.Documentation noting physical security hazards in the RF coverage area
- D.Documentation noting where each access point will be placed and how it will be mounted
- E.Documentation noting how each WLAN user group will authenticate to the network

Answer:B D

21.What statements define the contents of a manual RF site survey report?

- A.It is a series of notes taken during the interview with the network manager and given only to the site survey project manager.
- B.It is a one-page network inspection summary used to create a certificate of compliance.
- C.It contains the results from the RF coverage, capacity, and interference analysis.
- D.It is an internal document used by the site surveying firm. It is not shared with the client.
- E.It states the customer requirements and business justification for the WLAN.

Answer:C E

22.What advantages does using predictive site survey modeling software offer over performing a manual site survey?

- A.Predictive modeling software can predict the ideal access point location more than 99% of the time.
- B.Predictive modeling software makes it simple to try various access point locations, updating an access point's coverage pattern in almost real-time.
- C.Predictive modeling software provides more reliable data than manual surveys when fine-tuning access point placement.
- D.Interference sources from external networks can be more accurately measured when using predictive modeling software.
- E.It takes less time to create a reasonably accurate initial site survey using predictive modeling software than when performing a manual survey.

Answer:B E

23.Given: Your consulting firm recently completed a predictive site survey model for ABC Company. ABC Company insists on a manual verification of the predictive model. Using manual site survey software, what tasks can be performed as part of the predictive model verification?

- A.Identify the type, amplitude, and location of RF interference sources
- B.Identify client roaming patterns within the facility
- C.Emulate a client's experience to measure connection speed, retry rate, and frame loss
- D.Verify the optimal AP locations as given by the predictive modeling application
- E.Validate authentication and encryption mechanisms used by each client station
- F.Simultaneously capture and analyze data on each 802.11 channel to measure true system-wide

throughput

G. Validate each access point is identically configured to allow for seamless roaming

Answer: A C D

24. What factors are required to establish a high quality 2.4 GHz point-to-point RF link at a distance of 3 miles (5 kilometers)?

A. Accurate Link Budget calculations

B. Accurate Earth Bulge calculations

C. System Operating Margin (SOM) of at least 20 dB

D. A minimum antenna gain of 13 dBi

E. A Fresnel Zone that is at least 60% clear of obstructions

Answer: A E

25. What items are essential for performing a manual RF site survey for a warehouse facility?

A. A facility map of where users will and will not go

B. I-Beam mounting kits for hanging temporary access points

C. High-gain antennas for use in penetrating chain link fences

D. Signed warehouse safety checklist document

E. An understanding of typical data transactions

Answer: A E

26. What phrase defines Equivalent Isotropically Radiated Power (EIRP)?

A. Transmitter output power plus attached cable and connector loss

B. Transmitter output power only

C. Power supplied to the antenna plus antenna gain

D. Reflected power due to an impedance mismatch in the signal path

E. Power supplied to an RF antenna

Answer: C

27. What term describes the effect of increasing the intensity of an RF wave when the RF antenna lobe is focused in a desired direction?

A. Directional Extension

B. Active Amplification

C. Beam Compression

D. Passive Gain

E. Phased Propagation

Answer: D

28. Which antenna types can be used in a scenario where simple receive diversity is required?

A. Omni-directional

B. Patch

C. Yagi

D. Grid

E. MIMO Sector

F. Sector Array

Answer: A B

29. While working on a presentation document in a conference room equipped with a wireless network, you notice that, as you turn your laptop in different directions, your wireless signal strength changes. What statement describes the RF signal property that is primarily responsible for this change in signal strength?



- A.The RF signal's amplitude is changing due to a change in the visual line-of-sight.
- B.The RF signal's wavelength is being affected by varying antenna gain.
- C.The RF signal's multipath is changing the amount of RF absorbed by nearby objects.
- D.The RF signal's phase is oscillating due to electromagnetic interference (EMI).
- E.The RF signal's polarization is different than the receiving antenna.

Answer:E

30.What antenna characteristic decreases as the gain of the antenna is increased?

- A.Beamwidth
- B.Range
- C.Dissipated heat
- D.Polarization radius
- E.Fresnel Zone

Answer:A