Implementing Cisco Unified Wireless Network Essential (IUWNE) Review Questions - Module 1

Legend

answer Correct answer

✔   Your answer, Correct.

✘   Your answer, Incorrect.

1. **What is the name of the distance between the higher crest of a wave and the lower crest?**
✔   amplitude
        wavelength
        frequency
        phase

2. **What is the frequency of a signal occurring one thousand times a second?**
        1 kW
        1 Joule
        1 MHz
✔   1 kHz

3. **What is the term that describes when a signal is spread in many directions by small particles?**
        absorption
        multipath
        reflection
✔   scattering

4. **What is the term that describes by how much the signal is better than the noise level?**
        SNR
        modulation
        RSSI
✘   absorption level or rate

5. **For a signal to be good, the SNR level must be as high as the RSSI level.**
        true
✔   false

6. **What is the name of a wireless network covering an area the size of a city?**
        Metro LAN
        CWAN
✘   WWAN
        MWAN

7. **What is the name of wireless networks that extend local area networks?**
        WMAN
        Local Wireless Network
✔   Wireless LAN
        repeaters

8. **What device can be used to extend the range of an access point?**
        a mesh access point
        a bridge
✔   a repeater
        a workgroup bridge

9. What is the BSA?

    wired network to which an access point connects

    distance between an access point and its client

    base address of the access point

✔   wireless area of coverage of an access point

10. What is the ESS?

✔   a system where a wired network links two access points

    the extra coverage area created by a repeater

    the wireless coverage area of an access point

    a wired connection of the access point

11. The Effective Isotropic Radiated Power relates only to omnidirectional antennae.

✘   true

    false

12. What is the equivalent of 23 dBm?

    25.14 dBi

    25.14 dBd

    200 mW

✘   1 W

13. What is EIRP?

    Equivalent Isosymetric Radiated Power

✔   Effective Isotropic Radiated Power

    Extended Ionic Radiated Power

    Equivalent Internal Radiated Power

14. How does dBm relate to dBi?

    1 dBm is 2.14 dBi.

    1 dBi is 2.14 dBm.

    Conversion from dBm to dBi depends on the antenna type.

✔   There is no direct conversion between dBm and dBi

15. Which explanation accurately describes an elevation chart?

✘   side view from the coverage area to determine line of sight

    top view on the antenna radiation pattern

    side view on the antenna radiation pattern

    floor-by-floor coverage map

16. How is the magnetic field oriented in comparison to the electric field?

✘   both follow the same orientation

    45 degrees on its right

    90 degrees on its left

    180 degrees from it

17. What is used to try to solve multipath issues?

    open space designs

    multiple antennae

✘   access points movements

    strict environmental testing

18. What connector is used on Cisco access points?

    SMA-TB

    UHF-CI

    DB-SNR

✔   RP-TNC

19. What is a downside to using a splitter?

    The signal radiates where it is not wanted.

✔   The radiated signal is weaker.

    It only works in combination with an amplifier.

    It only works with a special type of antenna.

20. What is the effect of increasing the gain of an omnidirectional antenna?

> narrows the vertical beam
> provides better coverage everywhere
> ✗ provides better reception, but in the same area
> turns the antenna into a directional antenna

21. Which of the following is a DSSS speed?

> 3 Mb/s
> ✔ 5.5 Mb/s
> 7 Mb/s
> 9 Mb/s

22. How does Barker 11 transform the data that is to be sent?

> ✔ It transforms each bit into an 11-bit chip
> It transforms each bit into another bit with a predefined code.
> It transforms each octet into an 11-bit chip.
> It compresses each ko into an 11-bit chip.

23. DSSS combats interference by which of these methods?

> hoping when detecting an interference
> ✗ spending only a few milliseconds on each channel
> hiding the hopping sequence from the interferer
> sending a wide signal spread of 22 MHz

24. How does OFDM compare to DSSS?

> OFDM uses small carriers while DSSS use a large one.
> ✗ OFDM uses CCK while DSSS uses QBPSK and DQPSK.
> OFDM allows up to 11 Mb/s while DSSS allows up to 54 Mb/s.
> OFDM works with frequency modulation while DSSS works with amplitude modulation

25. How does an access point start DCF mode?

> ✗ It sends a normal beacon.
> It sends a special beacon with duration set to 32768.
> It resets the NAV of all clients in the cell.
> It sends a new supported rates table.

26. Which of the following is a Layer 2 technique that is used in wireless networks?

> CSMA/CD
> Token Ring
> CDMA/SD
> ✔ CSMA/CA

27. How long does a client have to wait before being able to send a frame in a cell's normal operation?

> duration of its slot time
> duration of its Backoff timer
> ✔ duration of its NAV
> duration of the inter-poll timer

28. How many MAC addresses does an 802.11 header contain?

> 1
> 2
> Up to 3
> ✔ Up to 4

29. What is the RA?

> checksum at the end of the frame
> address of the final destination point of the frame
> ✔ address of the station to receive the frame, final destination or not
> name of the frame control field

30. How often is a wireless ACK sent?

> after each data frame

depends on the sliding window value

✘   only when access points grant stations the right to talk

each time two stations detect each other

31. The control field gives information about which of the following?

✘   frame speed

frame type

frame length

access point

32. In which two of the following frames is the SSID always found? (Choose two.)

✔   beacon

✘   probe requests

authentication requests

reset frames

33. Which IEEE protocol is related to Bluetooth?

802.15.1

802.16

802.11h

✘   802.15.4

34. Which device in a ZigBee network sends beacons?

the initiator

the access point

✔   the network coordinator

the access router

35. Which WiMAX is the current backbone version?

802.11e

802.16d

802.15e

✘   802.16e

36. What is the range of 802.16e?

0.5 miles

✔   5 miles

30 miles

300 miles

37. What is the role of the FCC?

to create protocols for intercompliance systems

to ensure that wireless devices offered on the market do provide the features they claim to have

✔   to create regulations

to create worldwide interoperability for wireless spectrum and channels

38. What is the maximum EIRP in the 2.4-GHz band as per the ETSI rules?

17 dBm

20 dBm

✘   30 dBm

36 dBm

39. How many nonoverlapping 802.11a channels are available in Europe?

✘   3

4

19

23

40. Which of the following is an 802.11b speed?

6 Mb/s

✔   11 Mb/s

18 Mb/s

48 Mb/s

41. What is MIMO?

        a technology similar to WiMAX but adapted to wireless networks

✔   a new wireless modulation and technique that is used to gain longer range and higher speed

        a technology that is used to increase coverage in outdoor networks

        a new microchip with reduced size and maximized gain

42. How many nonoverlapping 802.11b and g channels are available in Europe?

✘   3

        4

        19

        23

43. What is the 1:1 rule?

        An antenna of 6 dBi must be connected through a cable of 6 dBi loss.

        Each dBm less power in the transmitter can allow 1 dBi increase in the antenna gain

        The antenna gain must be the same as the transmitter power.

✘   Each access point must have one single antenna.

44. What are UNII-1, UNII-2, and UNII-3?

✘   different generations of FCC rules for the 802.11a networks

        different frequency ranges

        different categories of wireless devices

        different certification bodies

45. Do European users of wireless devices have to comply with ETSI rules?

✘   Only if they buy a device made in Europe. Devices made in the United States would have to comply with FCC rules.

        It depends on the usage and the speed of the device.

        No, ETSI applies to Israel. Europe complies with the general IEEE rules.

        Yes.

46. What is transmit beamforming?

        the possibility to send three signals that are cumulated on the receiver single antenna

        the ability to dynamically change the shape of the transmitted beam to adapt to the environment

✘   the process by which the MIMO devices receive from different antennae at the same time

        the possibility to choose the antenna that has the best reception for each frame

47. What is the ETSI?

        a field indicating traffic buffered at the access point level

✔   a European regulatory body

        an encoding technique allowing speeds of up to 54 Mb/s

        a peer-to-peer network

48. When an ARP request is sent on the wireless side, what is the value of the destination address field?

✘   sending station MAC address

        broadcast value

        access point MAC address for this SSID

        router MAC address

49. What are two reasons for using 802.1Q? (Choose two.)

✘   to allow switches to share a trunk link with nontrunking clients

✘   to allow clients to see the 802.1Q header

        to provide inter-VLAN communications over a bridge

        to load-balance traffic between parallel links using STP

        to provide trunking between Cisco switches and other vendor switches

50. When an 802.11 frame is received by a controller and then sent on the cable, what is the value of the SA field?

        the controller MAC address

        the destination station MAC address

✘   the access point MAC address

        the wireless client MAC address

Number answered correctly: 24 out of 50.

Implementing Cisco Unified Wireless Network Essential (IUWNE) Review Questions - Module 2

Legend

answer Correct answer

✔ Your answer, Correct.

✘ Your answer, Incorrect.

1. **What does the acronym LWAPP stand for?**
    Logical Wireless Access Point Provisioning
    Link for Wireless Access Point Protocol
✘   Lightweight Access Point Provisioning
    Lightweight Access Point Protocol

2. **Where is LWAPP used? (Choose two.)**
    between access points and wireless clients
    between access point and controllers
✘   between controllers and Cisco WCS
✔   between controllers

3. **What is the function of Cisco WCS?**
    locate several devices at the same time
    act as a proxy for DHCP and other services
✘   help controllers discover access points
    manage controllers

4. **Which of the following is done at the access point level in controller-based architecture?**
✔   probe responses
    QoS policy creation
    mobility management
    RF management

5. **What is RRM?**
✔   a function of LWAPP to controller access points radios
    a multimedia extension for wireless radios
    a QoS tag and queuing system for wireless
    a controller function to handle client roaming

6. **Which of the following is NOT possible through LWAPP?**
    client movement detection
✘   roaming anticipation
    rogue detection
    rogue containment

7. **Which of the following is not an access point compatible with LWAPP?**
✘   1522
    1240
    1400
    1300

8. **What is the limitation of Layer 2 LWAPP?**
✘   Access points cannot have an IP address.
    Controllers cannot have an IP address.
    Controllers and access points must be in the same subnet.

It generates more broadcasts than Layer 3 LWAPP.

9. What is a consequence of using Layer 3 LWAPP?

        A DHCP option 43 must be used.

✖   Primary controller must be configured.

        Access points must have an IP address.

        Access point and controller must be in different subnets.

10. What happens when an access point sends a Layer 2 LWAPP discovery message to a controller configured for Layer 3 LWAPP?

        The controller replies with a LWAPP NACK message.

        The controller ignores the query.

        The controller replies with a LWAPP 3 message.

✖   The controller accepts the AP at Layer 2.

11. Where does an access point find the primary controller name in the controller answers?

        by comparing the answering controllers IP address to its controller database

✔   by looking at the controller LWAPP name written somewhere in the answer

        by sending an LWAPP name query message to candidate controllers

        by querying a DNS server for controller IP to name resolution

12. What is the purpose of the LWAPP join phase?

        exchange certificates for encryption

        receive the controller name

✖   set the access point radio parameters

        allow clients to access the WLAN

13. What is the role of a master controller?

        attract access point without primary controller configuration

        centrally decide the mobility group access points radio configurations

✖   manage several other controllers from one single interface

        have some special license space for lost access points

14. How can LWAPP messages be read?

        cannot be read; encrypted with AES CCMP

        by sniffing the controller port from the switch

✔   at the controller CLI level

        only from the wireless space, and if the sniffer has the access point certificate for security reasons

15. How long does an access point spend scanning on each channel in local mode?

        6 ms

        60 ms

✖   0.6 second

        6 seconds

16. What is the purpose of monitor mode?

        provide information about the RF environment

        provide client traffic and more information on each client's details

✖   sniff a specific channel to capture traffic

        monitor mode applies to clients, access point will just relay

17. Where can the packets captured in sniffer mode be read?

✖   on the controller

        on the switch, by mirroring the access point port

        on a special station with a special software

        on another access point in range

18. What is the purpose of an H-REAP access point?

✔   continue to provide access even when connection to the controller is lost

        build mesh networks

        be configured locally and still be LWAPP-aware

        be a hybrid of a controller and an access point

19. What is the bridge mode?

✔   a special mode for mesh networks
    a special mode allowing connection even in the event of a lost link to the controller
    a special mode in which the access point will send whatever it hears to a bridging station, on which a special capture software runs
    a special mode for long-range outdoor links only

20. What does roaming allow you to do in wireless networks?

✘   use your credentials in a foreign network
    move between access points while transmitting
    recover connection after having moved from one access point to the other
    cache user credentials on all surrounding access points to anticipate physical movements

21. For intercontroller seamless roaming to work, which of the following must be common to the controllers?

✘   the access points
    the user credentials
    the mobility group
    the AP-Manager IP address

22. When roaming from one controller to the other, which step is required?

✘   Reauthentication; association details are cached.
    Reassociation; authentication detailed are cached
    Nothing; everything is cached.
    Both reauthentication and reassociation are required.

23. What is a characteristic of asymmetric roaming?

✘   Packets up are always sent via the anchor controller.
    Packets up are always sent via the foreign controller.
    Credentials are not transmitted to the anchor controller.
    Credentials are not transmitted to the foreign controller.

24. What situations does symmetric roaming solve?

✔   where Reverse Path Forwarding is enabled
    where Radio Resource Management is not enabled
    where Cisco Compatible Extensions are not used
    where the foreign AP is not LWAPP-able

25. Is it possible to configure a controller for asymmetric roaming and still use symmetric roaming in some cases?

✘   No, but it is possible to configure a controller for symmetric roaming and use asymmetric roaming in some cases.
    Yes, it is called mobility anchor.
    No, it is a global parameter and has to be one of the other.
    Yes, symmetric or asymmetric are always configured on a per-WLAN basis.

26. What is a controller interface?

✘   an association between a port and a WLAN
    an association between a WLAN and a VLAN
    an association between a WLAN and several ports
    an association between a port and a VLAN

27. What is the purpose of the AP-Manager interface?

✘   provide an interface to manage APs at layer 2 LWAPP
    provide an interface to manage APs at layer 2 and layer 3 LWAPP
    provide an interface to manage APs at Layer 3 LWAPP
    provide a common interface to manage APs among controllers

28. What is the virtual gateway IP address?

✘   an address used to ARP proxy for clients without ARP capability
    an address representing the controllers as a cluster
    the IP address used by the controller to represent the client when talking to the wired network
    a symbolic gateway used for VPN termination purposes

29. Which of the following is not part of a controller dynamic interface configuration?

✔ WLAN mapping
controller IP address in the VLAN
DHCP server IP address
VLAN tag

30. Which of the following statements is true?

✗ The CLI provides Cisco IOS access to the controller.
The web interface does not exist before first setup.
By default, SSH and Telnet are not allowed.
After setup, the web interface is normally HTTPS only.

31. Which statement is true?

✗ Administrative users can access through the CLI or the web interface, but not both at the same time.
Administrative users can be defined locally or via TACACS+.
CLI administrative users are not the same accounts as web Administrative users.
Administrative users rights are always checked against RADIUS.

32. How is an LWAPP access point code upgraded?

✗ both from the web interface and the CLI, using the config ap command
only from the CLI interface, using the config ap command
from the AP interface, using tftp command
does not need to be manually upgraded; automatically gets upgraded when connecting to the controller

33. How do you save a controller configuration (Choose two)

✔ by issuing show run-config and capturing the output
by issuing show running-config and capturing the output
by issuing copy startup-config TFTP CLI command
✔ by issuing a transfer upload CLI command

34. What are the steps to provide a basic configuration to a standalone access point?

✗ express setup, save configuration, reload
express setup, express security, interface up
interface up, express setup, express security
express security, interface up, reload

35. Which of the following is a method to convert a standalone access point to LWAPP mode?

✔ Cisco WCS
controller CLI
hardware reset
access point auto mode detection

36. Once an AP is converted to LWAPP, is it possible to convert it back to standalone mode?

✗ yes, using Cisco WCS
no; no reason to migrate back
yes, using the Cisco IOS-LWAPP migration tool
yes, using the controller CLI

37. Which of the following is necessary when using the Cisco IOS-to-LWAPP conversion utility?

✔ Telnet access to the controller
access to Cisco Certificates Repository
web access to the controller
Cisco IOS default image code

38. Which of the following is part of the Cisco Mobility Express solution?

✗ the 2106 controller
the 1251 AP
the Cisco WLCM
the Cisco Configuration Assistant

39. Which of the following are possible combinations?

✗ 2106 controller, 526 access point

526 controller, 1251 access point
521 controller, 526 access point
526 controller, 521 access point

40. When the network grows, a Cisco Mobility Express solution can be integrated in a Cisco Unified Wireless Network solution.

✗   true
          false

41. A 521 standalone access point can be configured both via web interface and the Cisco Configuration Assistant.

✔   true
          false

42. The Cisco Configuration Assistant can be used to configure a DHCP scope on the 526 controller.

✗   true
          false

Number answered correctly: 12 out of 42.

Implementing Cisco Unified Wireless Network Essential (IUWNE) Review Questions - Module 3

Legend

answer Correct answer

✔ Your answer, Correct.

✘ Your answer, Incorrect.

1. **What is the name of the Windows integrated wireless configuration utility?**
   ✘ Zero Windows Component
   Zone Wireless Configuration
   Wireless Zero Configuration
   Zero Worries Component

2. **Which two types of profiles can be created in the Cisco ACAU? (Choose two.)**
   ✔ the same as in the Cisco ADU
   wireless and wired profiles
   802.1X profiles, whereas the Cisco ADU allows PSK profiles only
   ✔ profiles to be deployed to the Cisco ADU clients

3. **What type of network can a user create with the client version of the Cisco SSC?**
   ✘ Ethernet and PSK type
   PSK and 802.1X type
   wireless PSK type
   not possible for an end user to create profiles directly on Cisco SSC

4. **Which of the following is NOT an example of information returned by a Cisco Compatible Extensions-compliant RFID?**
   ✔ a security guard removing his RFID tag
   a forklift gas tank getting empty
   an object being moved
   an elevator arriving at a specific floor

5. **Upon starting, the WZC will connect to which two of the following? (Choose two.)**
   ✘ any network in range
   any network in the preferred list set to automatic
   any network in the preferred list
   the first automatic network in the preferred list
   ✘ the first detected network in range

6. **Which of the following is NOT a valid option upon installing the ADU?**
   ✘ install driver and client utility
   install client only
   install driver only
   make driver diskettes

7. **Which methods are available to install the Cisco SSC on a client machine?**
   ✔ by using the default .msi file
   by synchronizing the Cisco WLAN adapter driver with the Cisco SSC administration utility
   by deploying the installation package with a GPO
   by sending to the client machine an install.dat file created with the Cisco SSC administration utility

8. **Is it possible to use both the WZC and the Cisco ADU to configure Cisco WLAN adapters?**
   ✘ Yes, but the Cisco ADU should be used to create 802.1X and complex profiles.

Yes, the Cisco ADU provides the driver part, and WZC provides the front end.
No, because the Cisco ADU removes the WZC upon installation.
No, because the Cisco ADU disables the WZC for the Cisco WLAN Adapter.

9. How would you describe the Cisco Centralized Key Management feature?

✖ a reporting feature that allows the AP (access point) to understand how the client sees the network
a roaming feature that allows the client to be dynamically pushed to its preferred AP
a centralized key management functionality that removes the need for full reauthentication during the roam process
a certification program that allows the secure exchange of credentials between Cisco and third-party APs in the same network infrastructure

10. What does the term "CAM" refer to in the Cisco ADU advanced parameters?

✖ content addressable memory, which stores the network encryption keys
computer aided management, which auto-detects the network security type
content adaptive microchip, which runs the per-packet encryption and decryption algorithm
constant awake mode, which prevents the adapter from falling asleep in case of inactivity

11. What is commonly called "ping pong effect" in a wireless network?

✖ when a data or voice flow starts from a specific cell, goes to the controller, and returns to a client in the same cell from where it originated
when a signal reflects and comes back to its source strong enough to prevent further communication
when a roaming client comes back to the AP he left and causes credential caching issues
when a client stands at the edge of two cells and its WLAN adapter jumps back and forth between the two APs

12. How many profiles can you create in the Cisco ADU?

✖ 1
16
8
12

13. What is the Cisco Site Survey Utility?

✖ a tool used to help drawing AP deployment maps
a tool used to monitor the local network wireless security level
a tool used to help the AP troubleshoot the local cell clients
a tool used to perform basic network analysis

14. How would an administrator deploy profiles created with the Cisco ACAU?

✔ by inserting a Cisco ACAU-generated CiscoAdminConfig.dat file in the Cisco ADU install directory
by using the deployprofile.exe utility provided with the Cisco ACAU
by downloading a proxile.xml file to the client machines using a GPO
by sending the generated profile to the AP to which the users will connect.

15. What are the "5 GHz 54 Mbps," "2.4 GHz 54 Mbps," and "2.4 11 Mbps" values in the Cisco ADU advanced parameters used for?

✖ to determine if the profile created in profile management should be on the 802.11b, 802.11g or 802.11a band
to determine the frequency and rate at which your client adapter should transmit packets
to determine the minimum speed at which your adapter would be allowed to connect
to configure, for each of these values, the speed at which your adapter should be allowed to communicate

16. Is it possible for the Cisco ADU client to specify which AP to establish a connection?

✖ yes, by using the MAC filter features and entering the AP MAC address
yes, by using the Connect To field in the profile management window
yes, by using the Preferred APs button of the Advanced parameters page
no; tries to connect to the best AP in range serving the correct SSID

17. What is the client managed test used for?

✖ tests the connection parameters (SSID, SNR, and so on) for the current profile
tests several parameters from driver installation to network
test the knowledge of the user about the Cisco ADU with a self-check quiz

test the AP and SSID security using an automated network proofing utility

18. Which two can be managed by the Cisco ACAU? (Choose two.)
✔ client wireless profiles
✔ the client ADU behavior
the AP configuration
the controller access from the wireless network

19. Which tool is used to create wired connections in the Cisco SSC?
✔ the Cisco Secure Service Client Administration Utility
the Cisco Secure Client Connections Utility
the Cisco Secure Services Client itself
the Cisco Secure Services Client Net Packager

20. What is the method used to start the Cisco SSC?
✘ Start > All Programs > Cisco > SSC startup
System tray > right-clicking the Network icon> Start Secure Service
Start > Control Panel > Security > Start SSC
No action required; once installed, starts automatically with Windows

21. Which two of the following options are available when you click the Cisco SSC tray icon? (Choose two.)
✔ More (used to open Cisco SSC)
✘ Enable/Disable Firewall
Connection Status
Disable All Connections

22. One of the limiting factors of the Cisco Compatible Extensions program is that its features are limited to Cisco WLAN client adapters?
✘ true
false

23. Cisco Compatible Extensions is a special driver added, if the hardware is compatible, by the AP upon connection to a Cisco wireless network
✘ true
false

24. Who designs the Cisco Compatible Extensions specification?
✘ silicon suppliers
WLAN adapter vendors
Microsoft and other operating system providers
Cisco

25. Which version of the Cisco Compatible Extensions introduced PEAP-GTC?
✘ 1
2
3
4

26. How many Cisco Compatible Extensions features were made available?
✘ 4
5
less than 50
less than 70
less than 90

27. How would you describe the AP-specified maximum power?
✔ a Cisco Compatible Extensions feature allowing the AP to remotely configure the transmit power of clients
a Cisco Compatible Extensions feature allowing the AP to increase its transmit power beyond the normal limit, to reach far away clients
a Cisco Compatible Extensions feature allowing dynamic filtering of rogue clients by the AP, based on the central authentication server parameters

a Cisco Compatible Extensions feature granting the AP the power to push a client to a specific AP in the network

28. Which version of Cisco Compatible Extensions introduced management frame protection for clients?

✖   2
           3
           4
           5

Number answered correctly: 7 out of 28.

Implementing Cisco Unified Wireless Network Essential (IUWNE) Review Questions - Module 4

Legend

answer Correct answer

✔   Your answer, Correct.

✘   Your answer, Incorrect.

1. **Which of the following cannot be used for authentication?**

✘   something you know
     something you are
     something you have
     something you wear

2. **Which of the following is NOT a good password?**

✘   C!scok00L
     à la pêche ?
     Pneumonoultramicroscopic
     !2Evra9jD

3. **Which of the following is NOT applicable to something you have?**

✔   fingerprints
     crypto calculator
     magnetic card
     keys

4. **What is the issue caused by storing user passwords on computers?**

✘   Users tend to forget them.
     User authentication becomes device authenticationm
     Passwords can be read remotely.
     User authentication becomes client authentication.

5. **In encryption, what is the cipher?**

✘   the encrypted result
     the original text
     the process used to encrypt
     the process used to decrypt

6. **What is the advantage of a common password?**

✘   It is easier to attack.
     It is easier to remember.
     It requires a simpler network infrastructure.
     It is the only way to authenticate a device

7. **Which of the following describes a process of the infrastructure MFP?**

✘   When a client associates to an SSID not using a MIC, the rogue AP is automatically contained.
     When a client receives a frame from an unknown AP, the frame is dropped.
     When an AP hears a beacon from another AP but without a MIC, an alarm is generated
     When an AP hears a beacon from another AP but without a MIC, it tries to locate and block the rogue
AP.

8. **Which of the following is NOT a rogue by default?**

✘   neighbor AP
     ad hoc client

authenticated but not associated user

wireless client running a wireless attack

9. What is "rogue containment"?

✗   the action of forbidding frames coming through rogue APs from being sent to the wired network

the action of spoofing the rogue AP MAC address to deauthenticate its clients

the action of overloading the rogue AP with fake messages

the action of locating a rogue AP on a map

10. Which the following is a valid form of WEP?

✗   WEP encryption, 802.1X authentication

WEP authentication, no encryption

WEP authentication, WPA encryption

open authentication, WEP encryption

11. What does IV stand for?

✗   integral value

initial viduage

interversatil viewer

initialization vector

12. Adding WEP authentication to WEP encryption adds an extra level of security?

✗   true

false

13. Where is MAC filtering enabled?

✗   in the Wireless menu

in the WLAN menu

in the Security menu

in the Management menu

14. In 802.1X applied to wireless, what is the authenticator?

✗   the client

the AP/controller

the RADIUS server

the TACACS server

15. Which of the following describes the 802.1X process in wireless networking?

✗   The client authenticates but cannot associate before 802.1X succeeds.

802.1X is part of the 802.11 authentication process.

The 802.11 authentication and association processes succeed, but the client cannot go further before
802.1X succeeds

The client can access the network and the internet, but access to server resources is blocked until
802.1X succeeds.

16. Which of the following is not a valid access condition in a RADIUS server?

✗   user birth date

air temperature

geographical coordinates

all of the above possible, with the appropriate equipment

17. How many RADIUS servers can be defined in a controller?

✗   1

4

12

17

18. What is local EAP?

✔   the possibility for a controller to act as an authentication server

the possibility for a RADIUS server to have all the elements internally to allow or forbid client access

the possibility for an AP to allow or forbid access directly

the act of sending a copy of the RADIUS database to each remote site

19. Which of the following is a valid resource that can be used by local EAP to check usernames and passwords?

✗   local management user list and LDAP server
       clear password-based LDAP type of server
       local network user and external RADIUS server
       local WLAN user list and external LDAP server

20. How is sender message signature achieved in asymmetric keying?

✗   by applying the sender public key to the content
       by applying receiver private key to the content
       by applying sender private key to the content
       by applying both sender and receiver public key to the content

21. How is sender authentication guaranteed in asymmetric keying?

✗   Receiver encrypts a message with sender public key, and sender decrypts it to prove possession of the right private key.
       A third party that the receiver trusts confirms that the sender public key is genuine.
       Sender always has to physically meet receiver to give public key directly.
       Sender authentication is simply guaranteed by the sender signature on the content.

22. What is a certificate?

✗   sender private key, text, hash, third-party signature
       sender public key, text, hash, third-party signature
       receiver private key, text, hash, third-party signature
       sender public key, receiver public key, text, hash, third-party signature

23. Which of the following is EAP-TLS?

✗   an 802.1X authentication mechanism based on server certificate plus client password
       an 802.1X authentication mechanism based on strong client authentication only
       an 802.1X authentication mechanism based on Cisco proprietary PAC provisioning
       an 802.1X authentication mechanism based on client and server certificates

24. Which of the following is PEAP?

✔   an 802.1X authentication mechanism based on server certificate plus client password
       an 802.1X authentication mechanism based on strong client authentication only
       an 802.1X authentication mechanism based on Cisco proprietary PAC provisioning
       an 802.1X authentication mechanism based on client and server certificates

25. What is PAC?

✗   a Cisco proprietary algorithm used in LEAP
       the name of client credentials in EAP-TTLS and EAP-PEAP
       the equivalent to certificates in EAP-FAST
       the name of the encrypted tunnel created between the client and the authentication server

26. What is EAP-FAST phase zero?

✗   the initial contact between the client in the AP
       the point where the client gets disconnected
       the situation where the client does not need credentials anymore
       the situation where the EAP-FAST server provides the PAC

27. Creating which of the following was one of the aims of WPA?

✗   a lighter WEP
       an unbreakable WEP
       a simpler version of the already existing 802.11i protocol
       a temporary improvement to WEP

28. Which of the following is a difference between WPA2 and 802.11i?

✗   WPA2 does not support EAP-SIM, whereas 802.11i does.
       802.11i supports ad hoc networks, whereas WPA2 does not.
       WPA2 enforces AES-CCMP, whereas 802.11i allows both AES and TKIP.
       WPA2 only took the robust part of 802.11i and left out the roaming part.

29. What is 802.11i preauthentication?

✔   The client authenticates to all the APs in range, in case it would have to roam.
      The APs communicate the client credentials to the surrounding APs to anticipate client roaming.
      The client card authenticates through the AP before the user starts the authentication process to increase speed.
      The client authenticates once, and a unique ID system makes sure that it will never need to reauthenticate.

30. Which of the following is NOT a valid tab in WLAN security?
✖   Layer 2
      Layer 3
      local EAP settings
      AAA servers

31. In a controller WLAN menu, when choosing 802.1X in Layer 2 security, which of the following is implied?
✔   none or WEP encryption
      WPA or WPA2 encryption
      encryption defined independently; can be anything
      no encryption

32. In a controller Layer 2 Security tab, what does the CCKM option mean, as a WLAN Layer 2 security option?
✖   Cisco Centralized Key Management will be possible on this WLAN.
      Only Cisco Centralized Key Management-capable clients will be allowed.
      A Cisco Centralized Key Management extra security layer is added.
      Cisco Centralized Key Management is a controller global feature, it cannot be defined for individual WLANs.

33. What is a consequence of web authentication?
✖   Clients must run both Layer 2 and Layer 3 authentication.
      Clients cannot get an IP address before being authenticated.
      Clients can access the network but not the Internet.
      Clients must open a browser to be authenticated

34. Which of the following is not a native possibility of web authentication?
✖   Clients get redirected to a specific web page before authentication.
      Clients get redirected to a specific web page after authentication.
      Clients can just enter an e-mail address to be authenticated.
      Clients get redirected to another web page, depending on their IP address.

Number answered correctly: 5 out of 34.

Implementing Cisco Unified Wireless Network Essential (IUWNE) Review Questions - Module 5

Legend

answer Correct answer

✔ Your answer, Correct.

✘ Your answer, Incorrect.

1. **In which form is Cisco WCS available?**
✘ appliance only
   software only
   software or appliance, depending on customer choice
   software for few APs, appliance for many APs

2. **Which three of the following are Cisco WCS features? (Choose three.)**
✔ monitoring of coverage holes
✔ performance reporting
✔ location tracking
   auto-update of WLAN devices
   auto-update of client configuration
   Layer 2 to Layer 7 attack monitoring

3. **Which protocol does Cisco WCS use to communicate with the wireless infrastructure?**
✘ SOAP API to communicate with the controllers
   LWAPP to communicate with the APs
   SNMP to communicate with the controllers
   SNMP with the Location Appliance and LWAPP with the controllers

4. **Which feature does Cisco Spectrum Intelligence add to WLAN management?**
✔ the ability to identify non-802.11 sources of interference
   the ability to automatically adapt AP channels to wireless interference
   the ability to automatically change AP transmit power to adapt to wireless interference
   the ability to automatically locate wireless devices

5. **Which system does Cisco WCS use to locate devices?**
✔ fingerprinting
   TDoA
   closest AP
   triangulation

6. **What is the difference between triangulation and fingerprinting?**
✘ Fingerprinting requires each device calibration to determine its radiation pattern, whereas triangulation is more generic.
   Fingerprinting locates devices based on their hardware signature, while triangulation relies solely on wireless signal
   Fingerprinting locates users, while triangulation locates devices.
   Fingerprinting implies site calibration, while triangulation is more generic.

7. **What is the purpose of the Location Appliance?**
✘ allows for location of wireless devices, whereas Cisco WCS alone cannot locate devices on a map
   increases location accuracy
   allows for location in real time, whereas Cisco WCS alone locate devices every 15 minutes
   increases the number of devices that can be simultaneously located on a map

8. **What is the difference between a single-server license and an enterprise license?**

✗   A single-server license is linked to the server NIC MAC address, whereas an enterprise license can be installed on several machines.

   A single-server license supports fewer APs than the enterprise license.

   An enterprise license supports more controller models than the single-server license.

   A single-server license supports fewer simultaneous connections than the enterprise license.

9. **What is the purpose of Cisco WCS Navigator?**

✔   offers a single point of connection to several Cisco WCS instances

   offers an API to personalize the Cisco WCS interface

   lets you navigate through the Cisco WCS menus to create consolidated reports

   offers a direct connection to the controller web interface from Cisco WCS

10. **Which three of the following are installed by Cisco WCS? (Choose three.)**

✔   Apache web server

✔   Tomcat

✗   MS SQL server

   FTP server

   IIS web server

   MySQL server

11. **How is a license installed on Cisco WCS?**

✗   provided as a key during the installation process

   installed as a file uploaded to Cisco WCS after the installation

   provided as an encrypted file during the installation process

   obtained by validating the Cisco WCS installation online

12. **How can a background task be run manually?**

✗   If it fails, an alarm appears, and a Run Now option is available.

   In Windows services, it is possible to restart the background tasks.

   A background task cannot be run manually, in the interest of system stability.

   A background task can be run manually at any time from the Administration menu.

13. **Which user can create or delete users on Cisco WCS?**

✗   Sysadmin

   SuperUser

   Administrator

   WCSadm

14. **In Cisco WCS, normal users can always change their own passwords.**

✔   true

   false

15. **Which element has to be provided to add a controller to Cisco WCS?**

✔   controller management interface IP address

   controller service interface IP address

   controller LWAPP name

   controller AP-Manager IP address

16. **How is an AP added to Cisco WCS?**

✗   using its IP address and SNMP

   using its IP address and LWAPP

   automatically added, along with its controller

   with the AP auto-discovery wizard

17. **Is it possible to configure an AP from Cisco WCS?**

✔   Yes, you can use Configure Access Point

   Yes, indirectly; you can configure a controller.

   No, APs are not configurable devices.

   No, APs can be configured from controllers but not from Cisco WCS.

18. **What is the purpose of the audit function?**

✔   compares the configuration of a controller or AP to the configuration seen in Cisco WCS

checks which background task did not run properly
verifies the sanity and consistency of the database
dynamically checks for attacks

19. How is a template created?

✗   by copying a configuration file and applying it to the other devices
by configuring a device and clicking the Save as Template button
by using the macro Record Template and performing a sequence of actions
by using the Configure Templates menu

20. What is a configuration group?

✔   a group of controllers sharing the same configuration parameters
a group of users having the same access level to controller configuration
a group of Cisco WCS instances sharing the same controller base
a group of templates

21. What is auto-provisioning?

✔   the ability to configure controllers automatically
the ability to configure APs automatically
the ability to configure client devices automatically
the ability to configure client security automatically

22. How can a floor plan be added to Cisco WCS?

✗   directly from Monitor Maps
right after you create a campus map
cannot be created without creating a building first
automatically added with buildings

23. What is the unit of measurement used in Cisco WCS?

✗   foot
meter
can be defined map by map
feet or meters, defined globally for all maps

24. Which of the following is not an element used when creating a building?

✗   floor number
contact name
wall type
vertical span

25. How are APs positioned on a floor map?

✔   They are positioned one by one, manually, by the administrator
They are provisioned automatically when adding the floor map.
A first AP needs to be positioned on the map, and the others are auto-detected.
Access points need to be added manually to a floor, and then they are auto-positioned by the system.

26. What type of heat map is displayed by Cisco WCS?

✗   actual map of RF coverage and speeds
predictive map
actual resulting map from the calibration phase
graphical representations that do not reflect actual coverage

27. What is the purpose of the map editor?

✗   to position APs
to draw new floor maps
to add obstacles to floor maps
to manually define the heat maps

28. How is an obstacle defined in the map editor?

✗   by defining its type and dB loss value
by defining its dB loss only; type is not relevant
by defining its type; dB loss is automatically deduced
by clicking Generate Obstacles to deduce dB loss and types from the floor map

29. Which of the following is a usage of the planning tool?

✔   plan deployment for voice
        verify the location readiness of an existing network
        improve the location of existing APs
        plan AP density, depending on projected user density

30. Which color represents a major alarm level in the dashboard?

✘   yellow
        red
        black
        orange

31. Which three of the following are dashboard alarm categories? (Choose three)

✘   Clients
✔   APs
✔   Controllers
        Cisco WCS
        RFIDs
        Intrusions

32. What is the accuracy of Cisco WCS location capabilities?

✘   90 meters at 10%
        90% to within 10 meters
        Less than 3 meters
        Less than 3 feet
        5

33. Which three of the following are valid ways of searching for a device in Cisco WCS? (Choose three)

✔   using its MAC address
✔   using its IP address
✘   using its location
        using its name
        using its description
        using its connecting AP

34. What is the purpose of "recent map"?

✘   display the latest possible heat map
        display the last known position of a device
        update a floor map, while keeping the AP positions
        play location history for a given device

Number answered correctly: 12 out of 34.

Implementing Cisco Unified Wireless Network Essential (IUWNE) Review Questions - Module 6

Legend

answer Correct answer

✔   Your answer, Correct.

✖   Your answer, Incorrect.

1. **Where can you see the number of APs supported on the local controller?**
✖   Monitor > Controller Summary
       Monitor> AP Summary
       Management > Access Points
       Wireless > All APs

2. **Which version of LWAPP code does a Cisco IOS AP migrated to LWAPP run?**
✔   the same as the controller code
       the version of the file used to migrate the AP to LWAPP
       the same version number as the Cisco IOS code
       the same version as the Cisco IOS-to-LWAPP software used to migrate the AP

3. **Which of the following is true?**
       Controller code is a .ppc archive that contains four files.
       Controller code is a .zip archive that contains four files.
       Controller code is a .aes archive that contains three files.
✖   Controller code is a .bin archive that contains one file.

4. **Which of the following is a valid method for backing up a controller configuration file?**
       From the CLI, type save config tftp
       From the web interface, select Commands > Upload > Configuration
       From the web interface, click Save Configuration
✖   From the web Interface select Controller > Download Config

5. **Which command lets you see the controller configuration in the same format as another Cisco device?**
✔   show running-config
       show run-config
       show running-configuration
       show switchconfig

6. **Which information on an AP is not cleared when you click the Reset AP button?**
       the AP IP address, if statically defined
       the AP primary controller
       the AP location
✔   no information deleted, just power-cycles the AP

7. **Which statement is true?**
✖   Heat maps on Cisco WCS are based on real-time actual values because of fingerprinting.
       Heat maps on Cisco WCS are predictive but can be turned to real values with the Refresh from Network button.
       Heat maps on Cisco WCS are based on real-time actual values if Cisco Compatible Extensions is enabled on the APs.
       Heat maps on Cisco WCS are predictive and only rely on the accuracy of the information provided with the map.

8. **How does a microwave oven affect wireless networks?**
    It creates diffuse noise in the whole 2.4-GHz spectrum as long as it is connected to power.
    It creates a short-lived but intense degradation of signal, usually around channel 11.
    It creates degradations of signal, jumping from one channel to the other.
    ✗   It creates a strong signal degradation on channels 2 and 7.

9. **What are the effects of a DECT type of phone?**
    ✗   It creates degradations that worsen when the telephone is on its base.
    It completely jams any access point in channel 6 to 11.
    It creates noise that increases when the telephone is off hook (off its base).
    Because it tries to avoid 802.11 channels, it only has impact if the firmware is too old.

10. **Why do wireless cameras affect wireless networks?**
    Although 802.11-compliant, they require a large bandwidth that prevents other devices from communicating
    They are ad hoc devices that jam access points set on the same channel.
    They do not require ACKs, which make normal clients believe that packets are always about to be resent.
    ✔   Only analog cameras affect wireless networks, because they are non-802.11 devices

11. **How are RSSI and SNR correlated?**
    ✗   For any given RSSI, a minimum SNR of 10 dB is necessary for communication to be possible
    For any given SNR, a minimum RSSI of -75 dB is necessary for communication to be possible.
    The minimum SNR value depends on the RSSI level.
    The RSSI value should always be 5.7 times the SNR value.

12. **For a voice network, what is the minimum RSSI needed at the edge of the cell?**
    - 20 dBm
    - 67 dBm
    - 80 dBm
    ✗   - 94 dBm

13. **What change in the wireless infrastructure does location imply?**
    ✗   APs set to maximum power for fingerprinting
    APs located at the edge of the building for triangulation
    fewer APs to avoid RFID overlap issues
    lower speeds disabled for RFID compatibility

14. **Which of the following cannot be used to check or survey wireless coverage?**
    wireless phone
    laptop
    RFID
    ✗   spectrum analyzer

15. **Which statement describes the hidden node issue?**
    ✗   The AP is hidden in a ceiling, which causes reflection issues.
    Two clients are not in range of each other, and their signals collide at the AP level.
    A rogue AP emits on the same channel as a valid AP, creating interference.
    A non-802.11 device sends a signal that is not understood by the 802.11 devices but is strong enough to affect communication.

16. **What is the near-far issue?**
    A client close to the AP prevents faraway clients from sending frames.
    A client tries to connect to a faraway AP instead of a closer AP.
    A client hears the AP signal but the AP does not hear the client replies.
    ✗   Two devices too close to each other create electromagnetic interference.

17. **What issue can a time configuration error create on a controller?**
    ✗   It delivers invalid DHCP leases.
    It forces clients to permanently renew their keys
    It does not forward frames from the infrastructure anymore.
    It refuses clients and APs

18. Why is debug a CLI-only command?

✔   It requires a live interaction with the controller

        The equivalent in the web interface is the Monitor page, which does not need any special command.

        It is an advanced parameter reserved for troubleshooting with TAC assistance.

        Debug is available from the web interface though Management > Logs and Messages > Debug.

19. In which case would the Cisco WCS troubleshooting tool not be used?

        A client cannot access a file server, but can connect to the Internet.

        A client cannot access a specific WLAN, but can access another one.

        A client associates to a WLAN, but cannot receive or send any frame.

✘   A client sees SSIDs, but cannot associate to any of them.

Number answered correctly: 5 out of 19.