Exam : 642-577

Title : Wireless LAN for System Engineers (WLANSE)

Ver : 10-05-07

QUESTION 1:

When deploying Access Points in hotstandby
mode. Which channel is used by the standby Access Point?

A. It scans all available channels.
B. It uses the same channel as the primary AccessPoint .
C. It uses a channel adjacent to the primary Access Point.
D. The radio is off until an SNMP trap is sent by the primary.

Answer: B

Explanation:
Utilizing the hot standby mode, the redundant access point can be set to monitor the main access point. This monitoring
is done via both the RF and the Ethernet connection. In the event thateirtherfails, the redundant access point will take
over.
In the hot standby mode, the redundant access point becomes a client (will not accept associations from clients) of the
monitored access point and therefore does not interfere with the monitored access point.
Reference:AironetWireless LAN Fundamentals (AWFL) StudentGude

QUESTION 2:

Which three statement tools are applicable to Cisco WLAN? (Choose three.)

A. MIBs
B. Windows 2000
C. Cisco Device Manager
D. Cisco Element Manager Framework
E. RFSniffersand Spectrum Analyzers

Answer: A, B, E

QUESTION 3:

When doing a survey in a hospital application, which three should you consider? (Choose three.)

A. pagers
B. fire doors
C. televisions

D. microwave ovens
E. radiology/xray areas

Answer: A, D, E

QUESTION 4:

Filtering can be performed on an Access Point at which three layers of the OSI model? (Choose three.)

A. Layer 2
B. Layer 3
C. Layer4
D. Layer5

Answer: A, B,C

QUESTION 5:

The SWAN feature known as Fast Secure Roaming uses a mechanism known as Cisco Centralized Key Management CCKM, expedite the Layer 2 roaming process.
The CCKM authentication mechanism is configured ____.

A. on the client device
B. in the RADIUS Server
C. using the WLSE service
D. on the InfrastructureAPs

Answer: D

Explanation:
For each AP served by a Wireless domain Server (including the AP serving as the WDS), Wireless Services must be
Enabled to permit client devices to authenticate to the AP using the CCKM protocol and to permit Fast Secure Roaming to/from the AP.
The Username and Password that the AP uses to authenticate with the WDS (and in turn, the RADIUS server) are
entered from this screen.Note that this username/ password combinationnustbe entered from the server configured in the
WDS under "InfrastrudtureAuthentication".
Reference:AironetWireless LANFundametalsp.8-145

QUESTION 6:

The designatordBms a decibel referenced to a (n) _____ radiator.

Anwer: milliwatt

Explanation:
dBm(dBmilliWatt)
A signal strength or power level.0dBmis defined as 1mW(milliWatt) of power into a terminating load such as an antenna
or power meter. Small signals are negative numbers (3.g. 83dBm).
ReferenceAironetWireless LANFundametalsp.6-3

QUESTION 7:

Access Point10 in root mode (SSID = '123') provides connection to repeat Access Point20 (SSID = '123'). If Access Point10 is using Channel 1, what channel will Access Pint20 use?

A. Channel 1
B. Channel 6
C. Any channel except Channel 1
D. Channel is not a concern in this application

Answer: A

QUESTION 8:

What information is needed when using the IP Setup Utility (IPSU) to determine the IP address of a static Access Point?

A. DNS name of the Access Point
B. MAC address of the Access Point
C. serial number of the Access Point
D. the switch and switch port it is attached to

Answer: B

QUESTION 9:

Which two statements are true when the gain of an omnidirectional
antenna increases? (Choose two.)

A. The coverage distance increases.
B. The coverage distance decreases.
C. The coverage increases directly above and below the antenna.

D. The coverage decreases directly above the below the antenna.

Answer: A, D

Explanation:
MiltirateImplemetnation
Bandwidth requirements factor into coverage mappings, since the distance from an access point affects the available
bandwidth. The above example provides for seamless roaming, but not at a constant speed. To take advantage of the
MultiMate
technology a client can step down in bandwidth in order to gain greater coverage distances with a single access point. On the other hand, if 11 Mbps is required everywhere, the access point would need to be relocated so
that ONLY the 11 Mbps circles were touching each other. This would require a greater amount of access points but
consistent bandwidth would be achieved.
Notice that the data rate decreases as the coverage distance increases.
Reference:AironetWireless LAN Fundamentals p. 3-18.

QUESTION 10:

What is the rating indBiof an antenna that is rated at 0dBd?

A. 0dBi
B. 1.1dBi
C. 2.14dBi
D. 5.5dBi

Answer: C

Explanation:
For distance calculations, the following rules apply:
1)Antenna gains are given indBi(based upon a theoretical isotropic antenna) notdBd(based upon a dipole antenna).
2)To convert fromdBdtodBi, add 2.14 to thedBd
3) 0dBd=
2.14dBi
4)Cable length are a loss and are subtracted
The antenna and radio parameters include cable losses at thereceverand transmitter sites, the antennas used atbothsites,
and the performance of the receiver and transmitter. Receiver gain changes with data rate. Always use maximum data
rate values needed by the customer.
Reference:AironetWireless LAN Fundamentals p. 4-37.

QUESTION 11:

802.11supportsthe use of frequency hopping spread spectrum.(True or false?)

A. True
B. This is not always true must
be judged case by case
C. False

Answer: A

Explanation:
The first type of spread spectrum developed is known as frequency hopping spread spectrum (FHSS). The IEEE 802.11 committee has drafted a standard that limits FHSS transmitters to the 2.4 GHz band.

QUESTION 12:

You are the network administrator at Certkiller . Your newly appointed Certkiller trainee wants to know why WLANsare used on the Certkiller network.
What would your reply be?

A. It is used to enhance security
B. It is used to improve performance
C. It is used to provide flexibility
D. It provides cost savings

Answer: C

Explanation:
Properly deployedWLANscan provide instant access to the network from anywhere in facility. Users can roam without
losing network connection.
The CiscoAironetWLAN provides complete flexibility. Wireless bridges allow two or more networks that are physically
separated to be connected on one LAN, without the time or expense of dedicated cable or T1 lines.
Reference:AironetWireless LAN Fundamentals p. 3-3

QUESTION 13:

You are the network administrator at Certkiller . You want to determine the placement of the 7 individual Access Points for the Certkiller network. What would you require?

A. A site survey
B. A program analysis
C. The hop count to gateway
D. Nothing needs to be done if fewer than 11 Access Points are used.

Answer: A

Explanation:
You will need to do a site survey to see what you will need to support to get the coverage you want. This site survey
will usually take into account what the building is composed of, what the layout of the space is, what is considered line
of sight, whether the signal will need to go through ceilings and floors, where users are going to be, and so on.

QUESTION 14:

Most wireless LAN technologies in use today are based on RF field propagation.(True or false?)

A. True
B. False
C. This is not always true must
be judged case by case

Answer: A

Explanation:
Radio frequency (RF) is a specific type of electric current known as alternating current (AC) that generates an electromagnetic (EM) field when applied to an antenna. The resulting electromagnetic field (sometimes called an RF
field) and subsequent electromagnetic radiation is then used for wireless broadcasting and/or communications

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QUESTION 15:

What does the acronym EIRP stand for?

A. Effective Intermittent Radio Power
B. Effective Isotropic Radiated Power
C. Elevated Intermittent Radiated Power
D. Effective International Radiated Power

Answer: B

Explanation:
Effective Isotropic Radiated Power EIRP

is a measurement of power from an RF system (transmitter, cabling, and antenna).

QUESTION 16:

Which variables directly affect the EIRP value of an RF system (Choose all thatapply.)

A. The power of the radio
B. The gain of the antenna
C. The length of the cabling
D. The receiver sensitivity of the radio

Answer: A, B, C

Explanation:
EIRP is a measurement of power from an RF system (transmitter, cabling, and antenna).
Calculation for EIRP= power output (dBm) + antenna gain (dBi) - cable loss

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QUESTION 17:

How many of the channels defined within the North American Direct Sequence channel set do not overlap?

A.1
B.2
C.3
D.4
E.5

Answer: C
Seehttp://www.computer.org/internet/v6n1/w102wire.htm

QUESTION 18:

The 802.11 standard supports open and sharedkey authentication when RADIUS is configured properly.
(True or false?)

A. True
B. False
C. This is not always true must be judged case by case

Answer: B

Explanation:
The 802.11 standard supports open & sharedkey
authentication of client authentication.
NOT RADIUS

QUESTION 19:

You are the network administrator at Certkiller . You are installing antenna extension cables. What will this cause? (Choose all that apply.)

A. A decrease in the coverage distance
B. A decrease in the antenna's bandwidth
C. A decrease in the antenna's angle of radiation
D. A decrease in the effective isotropic radiated power

Answer: A, D
The strength decreases as the distance from the antenna increases.

QUESTION 20:

You work as a network consultant. You are contracted by Certkiller to install a wireless network in their building. They do not want any Ethernet cabling to be installed.
When doing your site survey you find that one will not cover the whole building.
What is your recommendation?

A. use various antenna systems to improve coverage
B. use a wireless repeater to cover the other areas
C. place an amplifier on the Access Point for more power
D. increasethe power output of the radio with version 10.10T (or greater) of the Access Point firmware.

Answer: B

Explanation:
You can extend the coverage for a client by using an AP in repeater mode to extend the coverage of an existingAP.The
repeater AP does not have a wired connection the network, instead, the client associates to the wired, root AP through
the AP acting as a repeater.

QUESTION 21:

You make changes to a specific page in the CLI. What command is use to activate those changes?

A. Save
B. Apply
C. Enable
D. Configure

Answer: B

QUESTION 22:

Which two parameters are available on the Express Setup screen of the Access Point? (Choose two.)

A. SSID
B. data ****C.
Role in Radio Network
D. ********Leading

Answer: A, C

Explanation:
The Express Setup page allows theconfigureationof the AP's basic parameters. These parameters may be set for either
of the AP's radio interfaces:
1)SSID: Configure the primary SSID for use on the specified radio interface
2)Broadcast SSID in Beacon: Set Yes to send SSID in AP's beacon information, which permits association by "guest"
users
3)Role in Radio Network: Set AP for either Root or Repeater.
4)Optimize Radio Network for: AP's data rates ma be set to send broadcast packets at more data rates for "Range" or
less data rates for" Throughput". Data rates permitted may also be explicitly configured via "Custom" link
5)AironetExtensions: Enabled or Disabled.Aironetextensions permit function of Ciscoclient'specificfeatures such as
roamin/ loadbalancing
and security features such as Cisco Temporal Key Integrity Protocol and MIC.
Reference:AironetWireless LAN Fundamentals p. 811

QUESTION 23:

You are the network administrator at Certkiller . Certkiller currently has a site with an omni directional antenna. The network has 50 ft. of cabling. Certkiller want to increase the cabling to 100 ft. what would this cause?

A. An increase in the data rate
B. A decrease in the coverage area
C. An increase in the coverage area
D. A decrease in the angle of radiation from the antenna

Answer: B

Explanation:
As the distance from the energy source of electromagnetic radiation increases, the area over which the electromagnetic
radiation is spread is increased, so that the available energy from the electromagnetic radiation in a given area is decreased.

QUESTION 24:

The 350 series Access Points programmed withU.S.channel sets have the option to reduce the power output to control the area of coverage. The power settings are 100mW, 50mW, 30mW, 20mW, 5mW, and 1mW. How does this affect the scalability of the Access Points? (Choose all that apply.)

A. It reduces receiver sensitivity.
B. It increases receiver sensitivity.
C. It allows you to create smaller coverage patterns.
D. It allows you to increase the ratio of Access Points to clients when it is set at 1mWrather than 100mW while covering
the same floor.

Answer: C, D

QUESTION 25:

In what formats are CiscoAironet350 Series Client Adapters for notebook computers available? (Choose all that apply.)

A. PCI
B. ISA
C. VISA
D. PCMCIA

Answer: A, D

Explanation:
CiscoAironetclient adapters are available in several form factors. These include PC Card (PCMCIA), LM Card, PC
Interface (PCI), and mini PCI card

QUESTION 26:

An antenna appears to increase the energy of an RF signal. What is this increase in energy referred to as?

A. gain
B. VSWR
C. bandwidth
D. beamwidth
E. polarization

Answer: A

Explanation:
Antennas are differentiated by their propagation patterns, gain, and transmission power.

QUESTION 27:

Certkiller has a trailer that houses a temporary office. There are six computers in the temporary office that need to connect to the main building. Certkiller already has a Cisco Access Point infrastructure located within the main building.
What wireless product would best connect the temporary office to the main building?

A. bridge
B. Access Point
C. WorkgroupBridge(WGB)
D. wireless PCI clients in every computer

Answer: C

Explanation:
Workgroup bridges WGB
are used to connect smaller remote location back to a central location.

QUESTION 28:

It is generally not easy for a network administrator to detect that an unauthorized user has infiltrated the WLAN.(True or false?)

A. True
B. This is not always true must
be judged case by case
C. False

Answer: A

QUESTION 29:

In what fashion are the antennas that Cisco sells for theAironetproduct line polarized?

A. spatially
B. vertically
C. horizontally
D. antenna dependent

Answer: B

QUESTION 30:

Which of the following devices can be powered by the inline
power injector that is supplied with the 350
series Access Point? (Choose all that apply.)

A. CiscoAironet350 series bridge
B. CiscoAironet350 series Access Point
C. CiscoAironet340 series Access Point
D. CiscoAironet350WorkgroupBridge(WGB)

Answer: A, B

Explanation:
In addition to the power injector, the 350 series products can also obtain their power from inline power capable Catalyst 3524PWRXL
switch or by using an inline power patch panel.

QUESTION 31:

Which of the following technologies are used in Wireless LAN?

A. collision avoidance
B. collision recovery
C. collision detection
D. all of the above

Answer: A

Explanation:
The basic access mechanism for 802.11 is Carrier Sense Multiple Access Collision Avoidance (CSMA/CA) with
binary exponentialbackoff.
This is very similar to the Carrier Sense Multiple Access Collision Detection (CSMA/CD) that we are familiar with
when dealing with standard 802.3 (Ethernet), but with a couple of major differences.

QUESTION 32:

What is the verticalbeamwidthof the 2.4 GHz 6dBipatch antenna?

A 45 degrees
B 65 degrees
C. 85 degrees
D. 90 degrees
E. 170 degrees

Answer: B

Explanation:
6dBi Patch Antenna wall mount patch antenna is not omnidirectional.
The vertical coverage area for this antenna is 65 degree.
The 6dBi patch provides excellent coverage with a wide radiation pattern.

QUESTION 33:

Which of the following can power the CiscoAironet350 series Access Points? (Choose all that apply.)

A. Cisco 1751 router
B. Cisco 2924XL
switch
C. Cisco 3524PWRXL
switch
D. Cisco Cat6K switch with WSX6348 blade

Answer: C, D

Explanation:
The CiscoAironet350 seriesAPsare powered inline. This means that they receive their power through Ethernet cables.
The CiscoAironet350 series products can also obtain their power from inline power capable Catalyst 3524PWRXL,
Cisco Catalyst 6000 series switch or by using an inline power patch panel.

QUESTION 34:

Which of the following CiscoAironetantennas are directional antennas? (Choose all that apply.)

A. 6dBipatch
B. 2.14 dipole
C. 13.5dBiYagi
D. 5.2dBiDiversity pillar mount

Answer: A, C

Explanation:
Patch antennas are directionally based and are designed to be placed at the edge of the coverage area.Yagiand dish
antennas are used for longrange, outdoor connectivity.
These antennas allow for two buildings to be connected even if they are miles apart.

QUESTION 35:

Which of the following devices allow for the wireless connection of two wired LANs? (Choose all that apply.)

A. bridge
B. Access Point
C. wireless client
D. WorkgroupBridge(WGB)

Answer: A, D

Explanation:
Workgroup bridges WGB
are used to connect smaller remote office back to a central location.

QUESTION 36:

What does the acronym ACU stand for?

A. AironetCisco Utility
B. AironetClient Utility
C. AironetCombo Utility
D. AironetConnection Utility

Answer: B

Explanation:
The ACU is used by administrators and end users to configure theAironetwireless LAN adapter locally and to perform
wireless network tests and general system diagnostics.

QUESTION 37:

Which of the following Cisco antennas has the narrowest angle of radiation?

A. 21dBidish
B. 6dBipatch
C. 13.5dBiYagi
D. 8.5dBipatch

Answer: A

Explanation:
Satellite dishes that are used for television transmission, the dish antenna provides that longest range of any of the Cisco
antennas. Specifically, it has a maximum range of 25 miles at 2 Mbps and 11.5 miles at 11 Mbps. As is the case with
any antenna, the dish antenna was able to get its longer range by reducing the radiation angle.

QUESTION 38:

You are the network administrator at Certkiller . You need to provide wireless 802.11b clients with the ability to communicate with a wired Certkiller LAN. Which of the following devices can you use? (Choose two.)

A. bridge
B. Access Point
C. 802.11b PCMCIA card
D. WorkgroupBridge(WGB)

Answer: A, B

Explanation:
There are two main types of devices on a WLAN: the AP and the bridge. The AP is a device that connects the wired
LAN to the WLAN, and allows the data to go from one media to the other. The second wireless device type is a wireless bridge. Much like its wired namesake, a wireless bridge is a WLAN device that connects two or more remote
networks into a single LAN.

QUESTION 39:

In which of the following is hopping code found?

A. BSSS
B. FHSS
C. DSSS
D. CDDS
E. CSMA/CD

Answer: B

Explanation:
Frequency Hopping
The first type of spread spectrum developed is known as frequency hopping spread spectrum (FHSS). Simply put,
frequency hopping is the process of jumping quickly from one frequency to another. A communications signal (voice or
data) is split into separate parts. This technique broadcasts the signal over a seemingly random series of radio frequencies. A receiver, hopping between frequencies in synchronization with the transmitter, receives the message. The
message can be fully received only if the series of frequencies is known.

QUESTION 40:

You are a network technician at Certkiller . You tellyournewly appointed Certkiller trainee about the anomaly that occurs when RF signals bounce off of objects and are received out of phase at the receiver end. Your trainee now wants to know what this anomaly is referred to as.
What would your reply be?

A. multipath
B. signal bounce
C. aFresnelzone
D. signal absorption
E. microwave interference

Answer: A

Explanation:
Multipathdistortion is caused, as the name implies, by the transmitted signal traveling to the receiver via more than one
path:

QUESTION 41:

Which of the following products would be classified asWiFicompliant?

A. 802.11 FHSS products
B. 802.11b DSSS products
C. 802.11b FHSS products
D. 802.11 DSSS 1 and 2 Mbps products

Answer: B

QUESTION 42:

What is the maximum time that current FCC regulations require WLAN product manufacturers to use?

A. 150 ms
B. 250 ms
C. 400 ms
D. 500 ms

Answer: C
Note:Probablyreferringto the EAPFAST timer reducing roaming association times from 500ms to less than 150ms

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QUESTION 43:

You are a network administrator at Certkiller . You are setting up a wireless connection that uses a 2.4 GHz signal. What will happen if a tree or other foliage is in the direct path between the transmitter and the receiver?

A. The signal will be reflected.
B. The signal will be refracted.
C. The signal will be absorbed.
D. The signal will be deflected.
E. The signal will be diffracted.

Answer: C

Explanation:
Signals emitted at 2.4 GHz will pass thought most solid objects such as walls, they do not pass through objects witha highwater content very well because 2.4 GHz signals are absorbed by water molecules and causes these
molecules to become excited, otherwise known as heated. This is the same principle that makes microwave

ovens work
so well with "wet" food and not very well with "dry" food.

QUESTION 44:

What seal is issued by WECA to show that an 802.11b product has passed interoperability testing with other manufacturer's products?

A. HiFi
B. WiFi
C. WLAN
D. WECA

Answer: B

Explanation:
To ensure that consumers can build interoperating 802.11 wireless networks, an organization called the Wireless
Ethernet Compatibility Alliance (WECA) tests and certifies 802.11 devices. Their symbol of approval means that the
consumer can be assured that the particular device has passed a thorough test of interoperations with devices from other
vendors. They have announced the "wireless fidelity" standard that is an awarded "seal of approval" for those WLAN
products that have successfully completed prescribed interoperability testing. TheWiFiseal
is to provide customers the assurance that products bearing this logo will work together.

QUESTION 45:

You are a network technician at Certkiller . You recently appointed Certkiller trainee wants to know what DSSS is. What will your reply be?

A. It is a spread spectrum radio
B. It is a user rate radio
C. It is a spreading ratio
D. It is an input parameter
E. It is an output parameter

Answer: A

Explanation:
Direct Sequence Spread Spectrum (DSSS)
The other type of spread spectrum communication is called DSSS. This is currently the most common method used in

WLANs. A direct sequence transmitter spreads its transmissions by adding redundant data bits called chips to them.
DSSS adds at least ten chips to each data bit to protect the receiver from data loss. DSSS does not split a data signal
into pieces; instesd. it encodes each data bit into these chips.

QUESTION 46:

Which of the following antenna architectures can be used to eliminate null areas in RF coverage?

A. splitters
B. diversity
C. high gain omni
D. patch antennas

Answer: B

Explanation: If the RF between the two devices is strong, it can sometimes give the misperception of good connectivity.
Even if the signal strength is good, the signal quality might be poor, thus causing traffic performance to suffer. By adding
a second antenna to the AP, you can increase the area in which signals are received and thus minimize, if not eliminate,
the "dead path" and increase the signal quality and performance. Using antennas in this way, withAPs, is called antenna
diversity.

QUESTION 47:

Which IEEE 802.11 task group is responsible for developing WLAN security standards?

A. 802.11a
B. 802.11b
C. 802.11g
D. 802.11h
E. 802.11i

Answer: E

Explanation:
802.11inew
specifications for WLAN security.

QUESTION 48:

True or false, 802.11b operates using lower frequencies than 802.11a?

A. False
B. True
C. This is not always true must
be judged case by case

Answer: B

Explanation:
ISM Unlicensed Frequency Bands are,
Ø902 928
MHzà26 MHz
Ø2.4 2.4835
GHzà83.5 MHz [802.11 & 802.11b]
Ø5.725 5.850
GHzà125 MHz [802.11a]

QUESTION 49:

An SSID prevents access by any client device that does not have the SDID.(True or false?)

A. True
B. False
C. This is not always true must
be judged case by case

Answer: A

Explanation:
The SSID is often referred to as the wireless LAN workgroup number or the wireless cell number. It is a unique, case sensitive,
and up to 32characterslong
identifier that is appended to network packets. The SSID defines the name
of the wireless LAN workgroup and is used to authenticate and establish communications with other wireless bridges
and wirelessAPssharing the same SSID.

QUESTION 50:

Which of the following best describes a WEP key?

A. highly secure
B. unbreakable
C. always safe
D. breakable

Answer: D

Explanation:
Because WEP key retrieval is now possible by casual attackers, keeping the same static WEP key in a production role
for an extended period of time does not make sense. If your WEP key is static, it could be published into the underground by a hacker and still be used in a production WLAN six months to a year later

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QUESTION 51:

What is the angle of coverage that an antenna radiates called?

A. gain
B. diversity
C. bandwidth
D. beamwidth
E. Fresnelzone

Answer: D

Explanation:
The antenna can be designed to concentrate the RF energy into a beam and increase its effectiveness in a given direction.

QUESTION 52:

What is the maximum number of wired clients that can send packets through the WGB342 to an Access point?

A. 4
B. 6
C. 8
D. 12
E. unlimited

Answer: C

Explanation:

The CiscoAironetWorkgroup Bridge (WGB) product connects to the Ethernet port of a device that does not have a
PCI or PCMCIA slot available. It provides a single MAC address connection into an access point, and onto the LAN
backbone. It cannot be used in a peertopeer
mode connection, and must communicate to a CiscoAironetAccess
Point orCiscoAironetBridgein access point mode. The CiscoAironetWGB will not operate with othervendorsaccess
points. Another configuration of theWorkgroupBridgewill allow up to 8 wired machines to be attached to the same radio
device. It is ideal for connecting remote workgroups to a wired LAN.
Inorederto use a WGB with multiple MAC addresses, the WGB must be connected to a hub. All users must connect to
the hub. The unit will automatically select the first 8 MAC addresses it hears on the Ethernet, or the addresses may be
entered manually into a table. The 8 MAC addresses are static.

QUESTION 53:

Any WLAN client within an access point service area can receive data transmitted to or from the access point as long as both devices are of the same brand.(True or false?)

A. True
B. This is hard to say depends
on the structure
C. False

Answer: C

Explanation:
The CiscoAironet350 is IEEE 802.11bcompliant
so that it will interoperate with other vendor devices within your
range of coverage.

QUESTION 54:

What is an omnidirectional
antenna that is designated to radiate at a slight angle rather than at 90 degrees
from the vertical element said to have?

A. gain
B. downtilt
C. beamwidth
D. polarization

E. sectorization

Answer: B

Explanation:
If we continue to push in on the ends of the balloon, it results a pancake effect with very narrow verticalbeamwidth, but
very large horizontal coverage. This type of antenna design canceliververy long communications distances, but has one
drawback poor
coverage below the antenna.
With high gain omnidirectional
antennas, this problem can be partially solved by designing in something calleddownilt.
An antenna that usesdoniltis designed to radiate at a slight angle rather that at 90 degree from the vertical element. This
does help for local coverage, but reduces effectiveness of the longrange
ability. Cellular antennas usedonilt. The Cisco
Aironet12dBiomni antenna has adowniltof 0 degrees.
Reference:AironetWireless LAN Fundamentals p. 610

QUESTION 55:

To which of the following devices can a CiscoAironetwireless PCMCIA client can talk to when in AdHoc mode? (Choose all that apply.)

A. CiscoAironetAccess Points
B. CiscoAironetPCI wireless adaptor
C. CiscoAironetPCMCIA wireless adaptor
D. CiscoAironetWorkgroupBridge(WGB)

Answer: B, C

Explanation:
Ad Hoc network mode provides wireless client nodes with the capability to establish peertopeer
network connections
with other wireless client nodes. When configured in Ad Hoc, infrastructure components are not required to establish
the network connection. Two or more workstations configured to access the same wireless networkisall that is needed.
The primary use of Ad Hoc network mode configurations is for peertopeer
file exchange between wireless clients
over the wireless radio network.

QUESTION 56:

Which of the following statements are true when the gain of an omnidirectional antenna is increased?
(Choose all that apply.)

A. The coverage distance increases.
B. The coverage distance decreases.
C. The coverage increases directly above the antenna.
D. The coverage decreases directly above the antenna.
E. The coverage increases directly below the antenna.
F. The coverage decreases directly below the antenna.

Answer: A, D, F

Explanation:
As the distance from the energy source of electromagnetic radiation increases, the area over which the electromagnetic
radiation is spread is increased.

QUESTION 57:

With regard to AdHoc
mode, which of the following statements is true?

A. AdHoc
mode requires a bridge to connect two or more wireless clients.
B. AdHoc
mode requires an Access Point to connect two or more wireless clients.
C. AdHoc
mode needs both an Access Point and BR to connect the wireless clients.
D. AdHoc
mode allows you to connect wireless clients without the use of an Access Point orBR.

Answer: D

Explanation:
Ad Hoc network mode provides wireless client nodes with the capability to establish peertopeer network connections
with other wireless client nodes. When configured in Ad Hoc, infrastructure components are not required to establish
the network connection. Two or more workstations configured to access the same wireless networkisall that is needed.
The primary use of Ad Hoc network mode configurations is for peertopeer
file exchange between wireless clients
over the wireless radio network.

QUESTION 58:

When performing the RF site survey you should choose a location that enables the access point antenna to have minimum lineofsight
propagation with the clients.(True or false?)

A. True
B. False
C. This is not always true must
be judged case by case

Answer: B

QUESTION 59:

In thus., for which of the following RF bands is no licensing required? (Choose all that apply.)

A. 902-928 MHz
B. 800-820 MHz
C. 2.400-2.483 GHz
D. 2.500-2.600 GHz
E. 5.150-5.350 GHz
F. 5.725-5.825 GHz

Answer: A, C, E, F

Explanation:
ISM Unlicensed Frequency Bands are,
Ø 902 - 928 MHz à 26 MHz
Ø 2.4 - 2.4835 GHz à 83.5 MHz [802.11 & 802.11b]
Ø 5.725 - 5.850 GHz à 125 MHz [802.11a]

QUESTION 60:

After the month of June 1994, the FCC and DOC regulations required all antenna connectors to be proprietary (unique and nonstandard).
Which of the following connectors has the Cisco/Aironetused on its Access Points and bridges since June 1994?

A. BNC
B. RPSMA
C.100 Base TX

D. RPTNC
E. Nconnector
F.10BaseT

Answer: D

Explanation: CiscoAPs, bridges, and accessories use primarily the RPTNC connector.
The RPTNC connector is a normal TNC connector that has been modified to fit FCC regulations.

QUESTION 61:

What wireless technology brand name does WECA promote?

A. WECA
B. WiFi
C. WLAN
D. HiFi

Answer: B

Explanation:
To ensure that consumers can build interoperating 802.11 wireless networks, an organization called the Wireless
Ethernet Compatibility Alliance (WECA) tests and certifies 802.11 devices. Their symbol of approval means that the
consumer can be assured that the particular device has passed a thorough test of interoperations with devices from other
vendors. They have announced the "wireless fidelity" standard that is an awarded "seal of approval" for those WLAN
products that have successfully completed prescribed interoperability testing. TheWiFiseal is to provide customers the
assurance that products bearing this logo will work together.

QUESTION 62:

The wireless medium of CiscoAironet350 Series Client Adapters is FHSS.(True or false?)

A. False
B. True
C. This is not always true must
be judged case by case

Answer: A

Explanation:
CiscoAironetclient adapters are available in several form factors. These include PC Card, LM Card, PC Interface
(PCI), and mini PCI card

QUESTION 63:

What is the maximum transmission speed of 802.11b in 2.4GHz MHz band?

A. 56
B. 54
C. 24
D.13
E. 11

Answer: E

Explanation:
802.11b access speed ranging from 1 Mbps up to 11 Mbps. 802.11b supports the original
802.11 data rate of 2 Mbps as well as higher speeds up to 11 Mbps.

QUESTION 64:

Which of the following statements is true?

A. CSMA/CA is a feature no longer supported by Cisco
B. CSMA/CA is a media security protocol
C. CSMA/CA is a feature no longer supported by the latest WLAN standards
D. CSMA/CA is a media access protocol

Answer: D

Explanation:
CSMACA
Mechanism
The basic access mechanism for 802.11 is Carrier Sense Multiple Access Collision Avoidance (CSMA/CA) with
binary exponentialbackoff.Thisis very similar to the Carrier Sense Multiple Access Collision Detection (CSMA/CD) that
we are familiar with when dealing with standard 802.3 (Ethernet), but with a couple of major differences.
CiscoAironet350 series client adapters, use CSMA/CA as the MAC protocol for the wireless connection.

QUESTION 65:

To what is the designatordBma decibel referenced to?

A. volt
B. ohm
C. milliwatt
D. decibelmeter

Answer: C

Explanation:
The dB scale is used to measure the power of a signal and is logarithmic in nature.
Signal strength display indBm(percent of maximum power ordBmmilliwatts)

QUESTION 66:

In what part of the 802.11 data packet will the transmit key placed when you use a multiple WEP key approach to security?

A. Trailer
B. Header
C. Payload of the packet
D. Initialization Vector (IV)

Answer: D

Explanation:
Perpacket
key hashing ensures that the base key of every packet is hashed with an initialization vector (IV) to create a new key for each packet. In this way, key hashing removes thepredicatilitythat an intruderrelison to determine the WEP
key by exploiting weak IVs. Broadcast keyroatationeliminates broadcast keys' susceptibility to the same attacks as
unicastor static WEP keys. The Cisco Wireless SecuritySutieinteroperates with a range of client devices.

QUESTION 67:

You are the network engineer at Certkiller . You want to monitor your primary Access Point and have another Access Point become active should the primary Access Point fail.
What feature will allow you to accomplish this?

A. HSRP
B. Redundancy
C. Hotstandby

D. Fault tolerance

Answer: C

Explanation:
Hot standby You
can assign a bridge to be the backup rugged AP, so that you can provide redundancy and reliability
in case of AP failure.
Cisco provides the Hot Standby feature as a hardware redundancy system forAPs.

QUESTION 68:

Why is shared key authentication a less secure method than open authentication?

A. Because the encryption key is sent clear text.
B. Because an unencrypted client can still associate to the Access Point.
C. Because an incorrect WEP key can be used to associate to the Access Point.
D. Because of the use of a no encrypted
text packet followed by an encrypted response of that packet.

Answer: D

Explanation:
Authentication to the AP is performed using one of two methods: Shared Key Authentication and Open Authentication.
Shared Key Authentication specifies that the client can communicate only withAPsthat have the same WEP key. Shared
key is not the recommended method of authentication due to security risks inherent in the authentication method. The
default setting is Open Authentication.
The open setting is slightly preferred to the shared key configuration because shared key transmits a cleartext query. However, either setting will allow for the use of WEP.

QUESTION 69:

Under the 802.11a standard, how many channels are defined for use in the UNII.1
band?

A.2
B.4
C.8
D.11
E.13

Answer: B

Explanation:
802.11a has eight channels without overlap of frequency. 802.11b has 11 channels with only three channels that do not
overlap in frequency. UNII1 uses the first 4 channels and UNII2 uses the last 4 channels.
UNII1 5.15 GHz to 5.25 GHz Indoor only, 40mWmax with 6dBiintegrated antenna Four 802.11a Channels.

QUESTION 70:

You are a network technician at Certkiller . You recently appointed Certkiller trainee wants to know why antenna diversity is useful.
What would your reply be? (Choose all that apply.)

A. It alleviates null zones.
B. It helps to overcome multipath
distortion.
C. It allows the Access Point to cover two different cells.
D. It adds more coverage area by using a directional antenna.

Answer: A, B

Explanation:
If the RF between the two devices is strong, it can sometimes give the misperception of good connectivity. Even if the
signal strength is good, the signal quality might be poor, thus causing traffic performance to suffer. By adding a second
antenna to the AP, you can increase the area in which signals are received and thus minimize, if not eliminate, the "dead
path" and increase the signal quality and performance. Using antennas in this way, withAPs, is called antenna diversity

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QUESTION 71:

What is the maximum distance that an 802.11 Access Point can reliably connect to a client?

A. approximately 1 mile or 1.6 km
B. approximately 2 miles or 3.2 km
C. 25+ miles or 40+ km
D. no limit

Answer: A

Explanation:

Customers may want to save money and use theworkgroup bridgeand access point in place of a bridge. If the distance
is less than 1 mile and remote end (WGB) has less than 8 end devices, this can be done. However, if the distance is
greater than 1 mile, it is recommended that a bridge be used instead of the access point. Using an access point at more
than 1 mile will not provide reliable communications. This is due to timing constraints that the 802.11 standard puts on
the return timers for packets acknowledgements. Remember, 802.11definesa LAN Local
Area Network which is typically a wireless range of up to 1000 feet.
Reference:Aironetwireless LAN fundamentals (AWFL) Student Guide p.4-25

QUESTION 72:

A directional antenna focuses the RF signal more in one direction than others, thus decreasing the range more in that direction.(True or false?)

A. True
B. False
C. This is not always true must
be judged case by case

Answer: B

QUESTION 73:

In an ETSI regulated country, how many channels are available in the 2.4 GHz band?

A.9
B.10
C.11
D.13
E.14

Answer: D

Explanation:

802.11b Radio Frequency Bands by Geography

Channel Number	Frequency GHz	North America	Europe	Spain	France	Japan
1	2.412	X	X			
2	2.417	X	X			
3	2.422	X	X			
4	2.427	X	X			
5	2.432	X	X			
6	2.437	X	X			
7	2.442	X	X			
8	2.447	X	X			
9	2.452	X	X			
10	2.457	X	X	X	X	
11	2.462	X	X	X	X	
12	2.467		X		X	
13	2.472		X		X	
14	2.483					X

QUESTION 74:

Which of the following should you consider when doing a survey in a hospital application?(Choose all that apply.)

A. pagers
B. fire doors
C. televisions
D. microwave ovens
E. radiology/Xrayareas

Answer: A, B, D, E
Structurally, hospitals offer a variety of radio frequency obstacles. You should be aware of Xray areas in particular,
because most hospitals have leadlined
or extremely thick walls surrounding these areas to prevent Xray
bleedthrough.
Consider these areas "dead zones" to radio frequency. Microwave ovens also can potentially cause interference and require you to change your AP channel assignments

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QUESTION 75:

802.11b access points generally offer a greater range than 802.11a.(True or false?)

A. This is not always true must
be judged case by case
B. True
C. False

Answer: B

QUESTION 76:

Which of the following statements are true with regard to a dipole antenna?

A. The horizontal bandwidth is 360 degrees, and the verticalbeamwidthis 75 degrees.
B. The horizontal bandwidth is 75 degrees, and the verticalbeamwidthis 90 degrees.
C. The horizontal bandwidth is 90 degrees, and the verticalbeamwidthis 75 degrees.
D. The horizontal bandwidth is 360 degrees, and the verticalbeamwidthis 360 degrees.

Answer: A

Explanation:
Isotropic=360/360Dipole=360/75

QUESTION 77:

Which of the following are possible sources of interference for 802.1b devices in a home environment? (Choose all that apply.)

A. television sets
B. cellular phones
C. cordless phones
D .microwave ovens
E. satellite dish receivers

Answer: C, D
There many devices that can potentially cause interference and require you to change your AP channel assignments. The
most common culprits are 2.4 GHz cordless phones and microwave ovens.

QUESTION 78:

CiscoAironet1200 Series support both 802.11a and 802.11g.(True or false?)

A. True
B. False
C. This is not always true must
be judged case by case

Answer: A
From Cisco's website "With simultaneous support of 802.11a and 802.11g standards, the CiscoAironet1230AG

Series
delivers up to 108 Mbps of data rate in the 5 GHz and 2.4 GHz bands."

QUESTION 79:

What is the maximum transmission speed of an IEEE 802.11b compatible radio?

A. 2 Mbps
B. 11 Mbps
C. 15 Mbps
D. 24 Mbps
E. 56 Mbps

Answer: B

Explanation:
802.11b access speed ranging from 1 Mbps up to 11 Mbps. 802.11b supports the original 802.11 data rate of 2 Mbps as well as higher speeds up to 11 Mbps.

QUESTION 80:

Which 5 GHz bands are designated for outdoor use only in theUnited States? (Choose all that apply.)

A. UNII1
B. UNII2
C. UNII3
D. 5.15-5.25 GHz
E. 5.25-5.35 GHz
F. 5.725-5.825 GHz

Answer: C, F

Explanation:
Assuming a 6dBiantenna (The radiated power is):
1)UNII1
50mWin
the US/Japan, 200mWinEurope, 4 Channels (5.15 5.25), Indoor AccessFixed Antenna
2)UNNI2
250mWin
US, 4 Channels (5.25 5.35) Indoor/Outdoor Use Flexible Antenna
3)UNNI3 1 W in theUS, 4 Channels (5.725 5.825) Outdoor Bridging only
4)HiperLAN 200mWinEurope,
8 Channels (5,25 5.35) Indoor Use only
5)HiperLAN 200mWinEurope,

8 Channels (5.25 5.35) Indoor Use only
6)HiperLAN 1W inEurope, 11 channels (5.470 5.725) Indoor/Outdoor Use Flexible Antenna.

QUESTION 81:

When performing the RF site survey, for maximum throughput your goal will be ensure that access points are placed in a manner where the edge of the access point's propagation overlaps the propagation of the adjacent access point.(True or false?)

A. False
B. This is not always true must
be judged case by case
C. True

Answer: C

Explanation:
Each AP and antenna combination produces a single area of coverage. Each of these single areas is referred to as a cell.
Multiple overlapping cells are used to provide wireless coverage for areas larger than a single cell alone can produce.
When configuringAPsfor cellular coverage, the amount of overlap required to allow a mobile client to seamlessly roam
throughout the coverage area is approximately 15 percent.

QUESTION 82:

You are the network engineer at Certkiller . You wantto allow a repeater to associate to a root Access Point. What is the minimum overlap in RF coverage that is needed?

A. 25%
B. 33%
C. 50%
D. 75%
E. 100%

Answer: C

Explanation:
Wireless RepeaterIn an environment where extended coverage is needed, but access to the backbone is not practical or
available, a wireless repeater can be used. A wireless repeater is simply an access point that is not connected to the
wired backbone. This requires a 50% overlap of the AP on the backbone and the wireless repeater.

QUESTION 83:

You are the network engineer at Certkiller . Certkiller usesa serverbased
authentication scheme.What type
of 802.11 authentication method is used on the client to associate to an Access Point on the Certkiller network?

A. Open
B. LEAP
C. Closed
D. EAPTLS
E. Sharedkey

Answer: B

Explanation:
One type of wireless security is focused on providing centralized authentication and dynamic key distribution area. By
using the IEEE 802.1x standard, the EAP, and the Cisco Lightweight Extensible Authentication Protocol (LEAP) as an
endtoend
solution, you can provide enhanced functionality to your wireless network

QUESTION 84:

You are the network administrator at Certkiller . You wantto control the flow of data packets across the Certkiller RF. What can you do? (Choose all that apply.)

A. Set packet filtering on thewireless client
B. Set packet filtering on thewireless bridge
C. Set packet filtering on theauthentication server
D. Set packet filtering on thewireless Access Point

Answer: B, D

Explanation:
We can filter the packet at the Access Point. The APs also allow you to control the throughput of traffic through the
WLAN using Media Access Control (MAC) and protocol based filters. Bridges can also filter data packets originating
and destined for network resources located on the local segment.
Reference:
http://www.cisco.com/univercd/cc/td/doc/pcat/340etbr.htm340WirelessBridgeWired LAN

FilteringIntelligentpacket
filtering by network address, protocol, or packet content
http://www.cisco.com/univercd/cc/td/doc/pcat/ao350ap.htm#xtocid6350 APBroadcast and multicast filtering also
enhance scalability. Filtering allows administrators to select the amount of such frames that enter the WLAN, conserving
the shared bandwidth. Layer 3 IP Net and IP Socket filters are also provided.

QUESTION 85:

You are the network engineer at Certkiller . Certkiller uses aCisco's serverbased
authentication method.
How many different WEP keys will a Certkiller clientbeaware of in each cell?

A. 1
B. 2
C. 3
D. 4
E. 5

Answer: A
If the client authentication mode is server based then per user session keys are dynamically generated for the session.
Static WEP keys are not used. The WLAN client only knows about one key at any one time.

QUESTION 86:

Which advantages does serverbased
authentication offer over standard WEP? (Choose all that apply.)

A. It uses TACACS for authentication.
B. It uses dynamic sessionbased
keys.
C. Authentication is based upon user name and password.
D. It keeps the WEP keys the same for all users for ease of use.

Answer: B, C

QUESTION 87:

You are the site survey engineer at Certkiller . You want to reduce the area of coverage of an Access Point.
What can you do? (Choose all that apply.)

A. Add an attenuator.
B. Use a smaller gain antenna.
C. Reduce the power setting on the Access Point.
D. Place the Access Point in the wiring closet next to the switch infrastructure.

Answer: A, B, C
Reference:Cisco Presentation

QUESTION 88:

Which port will an Access Point pass data traffic through if it is set up as a repeater?

A. The Radio port
B. The Bridge port
C. The Console port
D. The Ethernet port

Answer: A

Explanation: Only radio port will send and receive packets
Not D:Ethernet port is blocked when the Access Point is in Repeater mode.

QUESTION 89:

What is required to launch a dictionary attack against an EAP authentication algorithm?

A. User id or login
B. Encryption key
C. Master session key
D. RADIUS shared secret

Answer: A

QUESTION 90:

Which authentication type defined by IEEE 802.11 utilizes a challenge text packet when associating to an AP?

A. Open authentication
B. EAPTLS
authentication
C. EAPMD5
authentication

D. Sharedkey
authentication

Answer: D

Explanation:
Shared Key Authentication
1)The client sends an Authentication to Access point
2)Access Point sends an authentication response. The authentication response from the access point to the client is sent
containin"challenge" text. This packet is unencrypted.
3)The client then uses the text from the authentication response to form another authentication packet, which will be
encrypted using one of the client's WEP keys, and sends this as a response to the access point.
4)Access Point will then compare the encrypted "challenge" text against the access point's own copy of the encrypted
"challenge" text. If the encrypted text is the same, then the access point allows the client to the WLAN.
Shared Key Authentication is considered less secure than OPEN Authentication because of the challenge text packet.
Because this packet is sent unencrypted and then returned as an encrypted packet, it may be possible to capture both
packets and determine the stream cipher.
Reference:
AironetWireless LANFundametlasStudent Guide p.916

QUESTION 91:

What are three components of WAP (Version 1)? (Choose three)

A. LEAP
B. 48bitIV
C. 802.1X authentication
D. 256bit
A ES encryption cipher
E. Perpacket keying and Message Integrity Check

Answer: B, C, E

QUESTION 92:

Which "cipher" is configured on the CiscoAironetAccess Point to enable WPA?

A. Temporal Key Integrity Protocol
B. CCKM

C. WEP 128
D. Temporal Key Integrity Protocol + CMIC

Answer: A

Explanation:
To enable WPA on an access point, an appropriate Cipher (or combination of ciphers) must be chosen. Temporal Key Integrity Protocol is the
cipher used for WPA compliant devices. The following are valid WPA ciphers:
1)Temporal Key Integrity Protocol
2)Temporal Key Integrity Protocol + WEP 128 bit
3)Temporal Key Integrity Protocol + WEP 40 bit
Also note that when using WPA encryption on an accesspoin, Encryption Key 1 must not be used as the WPA key
negotiation mechanism uses this key position in the AP to transfer authentication data to the client.

QUESTION 93:

Which three are mechanisms for guarding against Basic 802.11 WEP key vulnerabilities? (Choose three)

A. WPA
B. Cisco Temporal Key Integrity Protocol .
C. Message Integrity Check
D. Use of two WEP keys on the AP
E. String authentication passwords

Answer: A, B, C

QUESTION 94:

Local Authentication Service on the Cisco Access Point allows a maximum of how many users?

A.10
B.25
C.50
D.100

Answer: C

Explanation:
IEEE 802.1X local authentication can support the authentication of up to 50 accounts for a given deployment in the
local Cisco LEAP authentication database on the access point. One account is equal to one user name and password.

The configuration of the IEEE 802.1X local authentication database can be centrally managed with the Cisco Works
WLSE 2.x management appliance. The access point with the IEEE 802.1X local authentication service does not need
to be dedicated to the IEEE 802.1X local authentication service. This access point can function as a regular access
point in addition to providing IEEE 802.1X local authentication.
Reference:AironetWireless LAN Fundamentals p.525

QUESTION 95:

Exhibit: ***MISSING***
On the Access Point Radio Hardware page shown in the exhibit, which option enables the Access point to attach its Channel Set information to the beacon packets?

A. Beacon Period (Kusec)
B. Data Beacon Rate (DTIM)
C. Allow "Broadcast" SSID to associate?
D. Enable "World Mode" multinomial
operation

Answer: D

Explanation:
Enable World Mode: When you select yes from the worldmode
pulldown
menu, the access point adds channel
carrier set information to its beacon. Client devices with world mode enabled receive the carrier set information and
adjust their settings automatically.

QUESTION 96:

What are two benefits that the CiscoAironet1400SeriesBridgeprovides?
(Choose two.)

A. reduced cost to T1/E1
B. similar speed to T1/E1
C. superior speed to T1/E1
D. ability to terminate a serial WAN connection

Answer: AC

Explanation:

The CiscoAironet1400SeriesWirelessBridgeprovides a highperformance
and featurerich
solution for connecting
multiple LANs in a metropolitan area. Designed to be a costeffective
alternative to leased lines, it is engineered
specifically for harshoudoorenvironments, yet also works well in indoor deployments. The
CiscoAironet1400Series
WirelessBridgeis the premier highspeed,
highperformance
outdoor bridging solution for lineofsight
applications.

QUESTION 97:

350 series Access Points programmed withU.S.channel sets have the option to reduce the power output to control the area of coverage power settings are 100mW, 50mW, 30mW, and 1mW.
How will this allow the Access Points to be very scalable? (Choose two.)

A. The receiver sensitivity decreases.
B. The receiver sensitivity increases.
C. You can create smaller coverage patterns.
D. While covering the same floor, you can increase the ratio of Access Point to clients when it is at 1mW rather than to
100mW.

Answer: CD

QUESTION 98:

Which statement about nonoverlapping
channels is true?

A. Non-overlapping channels share the same frequencies to improve roaming.
B. Non-overlapping channels use different frequency bands to improve roaming.
C. Non-overlapping channels share the same frequencies but use different modulations to avoid interference.
D. Non-overlapping channels use the same frequency band but use non-shared
frequencies to avoid interference.

Answer: D

QUESTION 99:

Which two combinations of devices from Ciscoallowsfor the wireless connection of two wired LANs? (Choose two)

A. Bridge, bridge
B. Access Point, bridge
C. WorkgroupBridge(WGB), WGB
D. Access Point,WorkgroupBridge(WGB)

Answer: A, D

QUESTION 100:

What is the relationship between data rate and cell size (coverage area)?

A. The highest date rate has the largest cell size.
B. The lowest date rate has the smallest cell size.
C. The highest date rate has the smallest cell size.
D. Only the transmitted power and antenna gain control the cell size not the data rate.

Answer: C

Explanation:
MiltirateImplemetnation
Bandwidth requirements factor into coverage mappings, since the distance from an access point affects the available
bandwidth. The above example provides for seamless roaming, but not at a constant speed. To take advantage of the
MultiMate
technology a client can step down in bandwidth in order to gain greater coverage distances with a single access point. On the other hand, if 11 Mbps is required everywhere, the access point would need to be relocated so
that ONLY the 11 Mbps circles were touching each other. This would require a greater amount of access points but
consistent bandwidth would be achieved.
Notice that the data rate decreases as the coverage distance increases.
Reference:AironetWireless LAN Fundamentals p. 3-18.

QUESTION 101:

Which three methods can be used to initially configure an AP? (Choose three)

A. ACU
B. IPSU
C. ACAU

D. Console cable
E. Web Interface

Answer: B, D, E

QUESTION 102:

Under which web interface page can a user configure a single SSID?

A. VLAN
B. SNMP
C. Security Page
D. Express Setup

Answer: D

Explanation:
The Express Setup page allows theconfigureationof the AP's basic parameters. These parameters may be set for either
of the AP's radio interfaces:
6)SSID: Configure the primary SSID for use on the specified radio interface
7)Broadcast SSID in Beacon: Set Yes to send SSID in AP's beacon information, which permits association by "guest"
users
8)Role in RadioNework: Set AP for either Root or Repeater.
9)Optimize Radio Network for: AP's data rates ma be set to send broadcast packets at more data rates for "Range" or
less data rates for" Throughput". Data rates permitted may also be explicitly configured via "Custom" link
10)AironetExtensions: Enabled or Disabled.Aironetextensions permit function of Ciscoclient'specificfeatures such as
roamin/ loadbalancing
and security features such as Cisco Temporal Key Integrity Protocol and MIC.
Reference:AironetWireless LAN Fundamentals p. 8-11

QUESTION 103:

Which two operating systems support WPA with a CiscoAironetClient Adapter? (Choose two)

A. Linux
B. Sun Solaris
C. Microsoft Windows 98
D. Microsoft Windows XP
E. Microsoft Windows 2000

Answer: D, E

QUESTION 104:

What are three required features in WPA (Version 1) for an Enterprise Class Access Point? (Choose three)

A. 256 bit encryption
B .WPA Migration mode
C. 802.1X authentication
D. preshared
key authentication
E. Unicastand broadcast key management

Answer: B, C, E
Not A:WPAv1 uses 128 bit RC4 encryption

QUESTION 105:

Which mechanism may be used to secure administrative access to the AP?

A. static WEP keys
B. TACACS+ control
C. 802.1X authentication
D. Kerberos authentication

Answer: B

QUESTION 106:

What is the purpose of the WPA 4way
handshake?

A. Authenticates users
B .Negotiates broadcast keys
C. Derives WPAunicastkeys
D. Negotiates the encryption cipher types

Answer: C

QUESTION 107:

You have a customer who wants to make a pointtopoint
bridge link. Between the bridge sites is a grove of
trees and a small river with a width of 1000 ft. By doing path analysis you have determined thatYagiswould be appropriate for this link. You begin to install the antenna and bridges but are unable to establish an RF connection.
Which statement is true?

A. Trees and additional amount of attenuation to the signal. Using a higher gain antenna will solve the problem.
B. The trees are absorbing the signal and distorting it before it gets to the remote site. You should use a mast or tower to
aim over the trees.
C. Trees add an additional amount of attenuation to the signal. The use of an amplifier to increase the power of the signal
will solve the problem.
D. Because the link is over a water source you rotate the antenna 90 degrees and use them in a horizontally polarized
fashion to avoid reflecting the signal.

Answer: B

QUESTION 108:

In which two modes can the CiscoAironet1400SeriesWirelessBridgepass Ethernet traffic? (Choose two)

A. Root/NonRoot mode
B. Install automatic mode
C. WorkgroupBridgemode
D. Install Root/NonRoot
mode

Answer: A, B

QUESTION 109:

Which two cables are used to connect a network device to the RJ 45 port of the Power Injector for the 1400 SeriesWirelessBridge? (Choose two)

A. cross over
B. coaxial cable
C. straight through
D. Cisco serial console port cable

Answer: A, C

QUESTION 110:

The typical antenna for a root bridge in a multipoint deployment isa(n) _____.

A. Yagiantenna
B. Sector antenna
C. Parabolic dish antenna
D. Omnidirectional antenna

Answer: D

QUESTION 111:

A customer inEuropeneeds an 11 MB wireless bridge link that is 1.3 km. You run the range calculation and determine that the BR350 product at 5mWwith 13.5 dByagisat both sites would work. Fifty feet of standard Cisco cabling is long enough to connect the bridge to the antenna. There is small grove of trees between sites, What needs to be done to make this link successful?

A. An amplifier needs to be installed at one of the sites,
B. The antenna must be raised high enough to clear the trees.
C. TheYagisneed to be used in a horizontally polarized orientation.
D. Due to the trees, a 21dBidish needs to be used for its narrowerbeamwidth.

Answer: B

Explanation:
One of the most important concepts for installing CiscoAironetBridges is line of sight. CiscoAironetBridges are unlicensed devices and are not designed to penetrate objects such as mountains, trees, or buildings. The signal will be
either absorbed or reflected, and the end result will be that the bridges are unable to connect.

QUESTION 112:

Which statement is true about the CiscoAironet1400SeriesBridge?

A. It does not support wireless clients.
B. It supports wireless clients only on a rootbridge
per IEEE specification.
C. It supports wireless clients onlyon a nonroot
bridgeswith valid links to a root bridge.
D. It supports wireless clients on a root bridge when a wireless client MAC address is set to forward.

Answer: A

QUESTION 113:

Which two statements are true? (Choose two)

A. Bridge in root mode will connect to bridge in root.
B. Bridge in root mode will connect to bridge in nonroot.
C. Bridge in non root mode will connect to AccessPoint in root.
D. Access point in nonroot
mode will associate to a bridge in root mode.
E. Access point in root mode will associate to a bride in nonroot mode.

Answer: B, D

QUESTION 114:

If the gain of the antenna goes up, thebeamwidth_____.

A. increases
B. decreases
C. changes polarity
D. becomes circularly polarized

Answer: B

Explanation:
Antennas have both a horizontal and a vertical beam widths. Some antennas have what is called a "down tilt", meaning that
thebeamwidthsare manipulated to provide more coverage below the antenna that above the antenna. This can be particularly important in an outdoor installation
Even though the antenna provides some down tilt, there will still potentially be a "dead spot" becomes.

QUESTION 115:

A customer has a current site with an omnidirectional
antenna. It has 50 ft of cabling that they are
increasing to 100 ft.
This change in cabling could _____.

A. increase the data rate
B. increase the coverage area
C. decrease the coverage area
D. decrease the angle of radiation from the antenna

Answer: C

QUESTION 116:

EIRP is a measurement typically calculated in _____.

A. dBi
B. dBr
C. dBd
D. dBm

Answer: D

QUESTION 117:

A theoretical antenna, which is the basis for ALL other antennas, is called a/an _____ antenna.

Answer: isotropic
The answer is isotropic antenna. Seehttp://www.electronics.radiouk.com/antenna/ant_db.php

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QUESTION 118:

When a client is connected to an Access Point in repeater mode, what is the effect on that client's throughput?

A. no effect in throughput
B. 25% degradation in throughput
C. 33% degradation in throughput
D. 50% degradation is throughput

Answer: D

Explanation:
A repeater can be added to extend the range of a bridge, but not double it. As a repeater, it needs to receive and transmit in more than one direction. Therefore,Yagistypically cannot be used. In such a situation an omnidirectional
or semidirectional (panel or patch) antenna would be employed, and they are less effectivethatna link using two directional
antennas. Using the highgain omnidirectinalantenna shown in the figure above would only result in a link of just over seven miles.
And again, the throughput is reduced by approximately 50% because the repeater must receive, buffer, and

transmit the data.
Reference:AironetWireless LAN Fundamentals p.4-62

QUESTION 119:

You have a two cell configuration. One cell's Access Point is configured utilizing channels.whatis the best channel selection for the second cell's Access Point.

A. Channel 4
B. Channel 8
C. Channel 9
D. Channel 11

Answer: D

QUESTION 120:

How can you discover an IP address for a given Access Point?
(Choose three.)

A. CDP
B. IPSU
C. telnet
D. browser
E. through the console port

Answer: A,B,E

Explanation:
To set an IP address:
1)Use DHCP
2)Use IPSU
3)Set using Console port

QUESTION 121:

Inadhocmode, the CiscoAironetwireless PCMCIA client can talk to which two devices (Choose two.)

A. CiscoAironetAccess Points
B. CiscoAironetPCI wireless adapter
C. CiscoAironetPCMCIA wireless adapter
D. CiscoAironetWorkgroupBridge(WGB)

Answer: BC

QUESTION 122:

What components must be configured to enable World mode in a WLAN system?
(Choose two.)

A. Cisco router
B. Cisco switch
C. NonCisco
router
D. NonCisco switch
E. Cisco Access Point
F. Cisco wireless client

Answer: E, F

QUESTION 123:

What are two possible sources of interference for 2.4 GHz (802.11b or 802.11g) devices in honor environment (Choosetwo.)

A. cellular phones
B. cordless phones
C. microwave ovens
D. satellite dish receivers

Answer: B, C
For 2.4 GHzwireless LANs, there areseveral sources of interfering signals, including microwave ovens, wireless phones,
Bluetooth enabled devices, and other wireless LANs. The most damaging of these are 2.4 GHz wireless phones that
people are starting to use in homes and some companies. If one of these phones is in use within the same room as an
802.11b wireless LAN, then expect poor wireless LAN performance.
Microwave ovens operating within 10 feet or so of an access point or radioequipped
user will generally just cause
802.11b performance to drop. Bluetooth enabled devices, such as laptops andPDAs, will also cause performance
degradations if operating in close proximately to 802.11 stations, especially if the 802.11 station is relatively far (i.e.,
low signal levels) from the station that it's communicating with. The 802.11 and 802.15 standards groups, however, are

working on a standard that will enable the coexistence of Bluetooth and 802.11 devices. Other wireless LANs, such as
one that your neighbor may be operating, can cause interference unless you coordinate the selection of 802.11b channels.

QUESTION 124:

What can you do to reduce necessary traffic from being transmitted across the RF from an Access Point?

A. enable packet filtering
B. enable MAC address authentication
C. set the buffer size in the Access Point to a lower value
D. reduce the cell size by setting the transmit power to a lower setting

Answer: A

QUESTION 125:

What are two benefits of the SWAN architecture? (Choose two.)

A. enhances security
B. provides higher throughput to clients
C. requires multiple individual management tools
D. provides the ability to manage a large number ofAPs

Answer: A, D

Explanation:
Structured Wireless Aware Network:
1) Scalable WLAN management platform
- Managing up to 2500 of APs is as easy as managing a few APs
- For medium to large enterprise campus, vertical (retail and healthcare) and branch office WLANs.
2) Silmlifies complex, time consuming, and expensive WLAN operations
- Assisted Site surveys
- Rogue AP/Network detection
- Interference detection and mitigation
3) Enhances Security
- Rogue AP/Network Detection
- Fast Secure Roamiing
- IEEE Local Authentication Service
- Security Policy Monitoring
4) Effective troubleshooting and diagnostic tools
- Proactive performance and fault monitoring

QUESTION 126:

After June 1994, FCC and DOC regulations require all 2.4 GHz antenna connectors to be proprietary (unique and nonstandard) Cisco/Aironet has since used what connector on its Access Points and bridges?

A. BNC
B. RPSMA
C. RPTNC
D. Nconnector

Answer: C

Explanation:
Two reversepolarity
threaded naval connectors (RPTNC)
for external 2.4 GHz antenna connection: Diversity support
for the 2.4 GHz radio to improve reliability in highmultipathenvironment.
The RPTNC
connectors are compatible with
the CiscoAironetoptional antennas, enabling WLAN architects to customize radio coverage for specific deployment
scenarios.
Reference:
Aironet Wireless LAN Fundamentals (AWFL)SudentGuide p.58

QUESTION 127:

When WEP is enabled with sharedkey
authentication, which two packets encrypted? (Choose two.)

A. beacons
B. data packets
C. association packets
D. challenge text response

Answer: BD

Explanation:
Shared Key Authentication
5)The client sends an Authentication to Access point
6)Access Point sends an authentication response. The authentication response from the access point to the client is sent
containin"challenge" text. This packet is unencrypted.

7)The client then uses the text from the authentication response to form another authentication packet, which will be
encrypted using one of the client's WEP keys, and sends this as a response to the access point.
8)Access Point will then compare the encrypted "challenge" text against the access point's own copy of the encrypted
"challenge" text. If the encrypted text is the same, then the access point allows the client to the WLAN.
Shared Key Authentication is considered less secure than OPEN Authentication because of the challenge text packet.
Because this packet is sent unencrypted and then returned as an encrypted packet, it may be possible to capture both
packets and determine the stream cipher.
Reference:AironetWireless LANFundametlasStudent Guide p.9-16

QUESTION 128:

Which three featuresare partof the SWAN architecture? (Choose three.)

A. Client Management
B. Rogue AP Detection
C. Assisted Site Survey
D. PEAP Authentication
E. Fast Secure Roaming

Answer: BCE

Explanation:
Structured Wireless Aware Network:
5) Scalable WLAN management platform
- Managing up to 2500 of APs is as easy as managing a few APs
- For medium to large enterprise campus, vertical (retail and healthcare) and branch
office WLANs.
6) Silmlifies complex, time consuming, and expensive WLAN operations
- Assisted Site surveys
- Rogue AP/Network detection
- Interference detection and mitigation
7) Enhances Security
- Rogue AP/Network Detection
- Fast Secure Roamiing
- IEEE Local Authentication Service
- Security Policy Monitoring
8) Effective troubleshooting and diagnostic tools
- Proactive performance and fault monitoring

QUESTION 129:

Which data rate is covered under the 802.11g specification?

A. 10 Mbps
B. 24 Mbps
C. 50 Mbps
D. 108 Mbps

Answer: C

Explanation:
A.W.L.F. V4 page 3-19 The 802.11g specifications supports data rates 6, 9, 12, 18, 24, 36, 48, 54.

QUESTION 130:

When using 128bit
data encryption, how manyitsis Initialization Vector (IV)?

A. 4bits
B. 16bits
C. 24bits
D. 48bits

Answer: C

Explanation:
The first 24 bits of the frame are the Initialization Vector (IV). The purpose of the IV is to insure that the same plaintext
data frame will never generate the same WEP encrypted data frame. The method of changing the IV is dependent upon
vendor implementation (Cisco Aironet changes the IV on a per packet basis)

QUESTION 131:

Which IEEE 802.11 task group is responsible for the development of WLAN security standards?

A. 802.11d
B. 802.11e
C. 802.11f
D. 802.11i

Answer: D

Explanation:
The next generation of WLAN security is the responsibility of IEEE's 802.11 Task Group I. These enhancements are
being added to mitigate WEP vulnerabilities. Once these enhancements are ratified by IEEE 802.11 Task Group I, the
new standard will be called IEEE 802.11I.
Reference: AWFL p.9-49

QUESTION 132:

What occurs when a tree or higher foliage is in the direct path between the transmitter and receiver of a 2.4 GHz signal?

A. The signal is reflected.
B. The signal is refracted.
C. The signal is absorbed.
D. The signal is diffracted.

Answer: C

Explanation:
One of the most important concepts for installing CiscoAironetBridges is line of sight. CiscoAironetBridges are unlicensed devices and are not designed to penetrate objects such as mountains, trees, or buildings. The signal will be
either absorbed or reflected, and the end result will be that the bridges are unable to connect.

QUESTION 133:

Antenna gain can be measured in _____.

A. dBiandjBI
B. dBianddBi
C. dBianddBd
D. qRtandqSy

Answer: C

Explanation:
For distance calculations, the following rules apply:
1)Antenna gains are given indBi(based upon a theoretical isotropic antenna) notdBd(based upon a dipole antenna).
2)To convert fromdbdtodBi, add 2.14 to thedBd0dBd=2.14dBi
3)Cable lengths are a loss and are subtracted
Reference: AWFL p.437

QUESTION 134:

The signal propagation of anOmnuantenna on a horizontal plane _____.

A. Is the same as a patch antenna.
B. Is radiated in a 360 degree patterns.
C. Has less signal strength than the vertical plane.
D. Makes theOmnuantenna a good solution for point to point connections.

Answer: B

Explanation:
The omni has a gain of 5dBiand a 360degree pattern.
Reference:
AWFLStudentguide p.6-31

QUESTION 135:

What is the calculation formula for EIRP?

A. Antenna gain Transmitter
Power + Cable Loss
B. Transmitter Power + Antenna Gain -Cable Loss
C. Cable Loss + Antenna Gain Receiver Sensibility
D. Cable Loss + Receiver Sensitivity + Antenna Gain

Answer: B

Explanation:
The Effective Isotropic Radiated Power (EIRP) of a transmitter is the power that the transmitter appears to have if the
transmitter were an isotropic radiator (if the antenna radiated equally in all directions). Byfirtueof the gain of a radio
antenna (or dish), a beam is formed that preferentially transmits the energy in one direction. The EIRP is estimated by
adding the gain (of the antenna) and the transmitter power (of the radio).
EIRP= transmitter power + antenna gain -cable loss
Reference: AWFL Student Guide p.6-14

QUESTION 136:

Whyarediversity antennas used indoors?

A. They are smaller in size.
B. They are designed to handle multipath.
C. They have lower transmit signal strength than standard antennas.
D. They have highertransmitsignal strength than standard antennas.

Answer: B

Explanation:
Dual diversity antennas typically mean if one antenna is in a null, the other one will not be, therefore providing better
performance inmultipathenvironments.

QUESTION 137:

If the power output of a radio equal to 100mW, what is its equivalent rating indBm?

Answer: 20dBm

QUESTION 138:

When describing an isotropic antenna, the horizontalbeamwidthis _____ degrees, and the vertical bandwidths 360 degrees.

Answer: 360

QUESTION 139:

Which two methods can be used to increase the distance over which two bridgeenabled
sites can communicate with each other? (Choose two)

A. Increase the antenna gain.
B. Decrease the antenna gain.
C. Increase the antenna cable length.
D. Decrease the antenna cable length.

Answer: A, D

QUESTION 140:

With the 1400SeriesWirelessBridge, what is the maximum distance of combined cabling you can run between the network device, the power injector, and the Outdoor Unit (ODU)?

A. 50 meters
B. 150 meters
C. 200 meters
D. 250 meters

Answer: C

QUESTION 141:

The CiscoAironet1400SeriesBridgecan replace an expensive T1 connection because the high speed _____ radio can easily exceed T1 speeds and is cost effective.

A. 54 MB 802.11a
B. 54 MB 802.11g
C. 64 MB 802.11a
D. 64 MB 802.11g

Answer: A

QUESTION 142:

What are two functions of the WDS AP? (Choose two.)

A. to collect client and AP Radio Management data
B. to collect AP configurations to store on the WLSE
C. to allow more clients to get access through an AP
D. to cache security credentials to facilitate Fast Secure Roaming

Answer: A, D

QUESTION 143:

Which three are recommended security practices for deploying CiscoAPs? (Choose three)

A. Use SSH encryption for Telnet.
B. Create VLAN for management traffic.
C. Disable admin authentication on theAPs/bridges.
D. Use RADIUS or TACACS+ for admin user authentication.

Answer: A, B, D

QUESTION 144:

What are two functions of the WDS AP? (Choose two.)

A. to collect client and AP Radio Management data
B. to collect AP configurations to store on the WLSE
C. to allow more clients to get access through an AP
D. to cache security credentials to facilitate Fast Secure Roaming

Answer: A, D

QUESTION 145:

An 802.11a radio utilizes what technique e to transmit its signal?

A. IR
B. DSSS
C. FHSS
D. OFDM

Answer: D

Explanation:
Orthogonal Frequency Division Multiplexing (OFDM) is the modulation technique used by 802.11a. The OFDM
encoding scheme works by splitting the 20 MHz radio channel into 52 smaller subcarriers.
48 of the 52 subcarreirsare
used to transmit data. The remaining 4 subcarriers
are used as pilot carriers for monitoring paths shifts and Inter Carrier
Interrference(ICI).
These subcarriers
are then transmitted simultaneously at different frequencies to the receiver.

QUESTION 146:

You are setting a user through User Manager on the Access Point menu screen. Which two rights does that user require if it is an SNMP community with readonlyprivileges.(
Choose two.)

A. Ident
B. Write
C. SNMP
D. Admin

E. Firmware

Answer: C, D

QUESTION 147:

What functions does the WLSE perform?

A. rogue AP shutdown and automatic client card configuration
B. security, configuration, and firmware management CiscoAPs
C. facilitation of automatic configuration and performed firmware management.
D. Facilitation of automatic configuration and security management, and management of nonCiscoAPs

Answer: B, C

QUESTION 148:

What is the highest transmission appeared achievable with an IEEE 802.11b compatible radio?

A. 2 Mbps
B. 11 Mbps
C. 15 Mbps
D. 54 Mbps

Answer: B

Explanation:
The 802.11b standard, most widely deployed wireless standard, operates in the 2.4 GHz unlicensed radio band and
delivers a maximum data rate of 11MBps. The 802.11b standards has been widely adopted by vendors and customers
who find its 11 Mbps data rate more than adequate for their applications. Interoperability between many of the products
on the market is ensured through the WIFicertification program. Therefore, if your network requirements include
supporting a wide variety of devices from different vendors, 802.11b is probably your best choice.

QUESTION 149:

What is the default user *********Exists on a default Access Pont?

A. user
B. admin

C. public
D. There is **********

Answer: D

QUESTION 150:

Which two statements are true out Cisco SWAN Radio Management?
(Choose two.)

A. It is supported by allAPs
B. WDS serves snaps.
C. It performs interference detection and isolation.
D. SNMP Read Only (RO) required while Read Write is optional

Answer: B, C

QUESTION 151:

What does the 802.11g protection mechanism do?

A. uses the CTS (clear to send) to manage the transmit power of all clients
B. reduces the data rate for 802.11g clients when 802.11 g clients are in the same cell
C. reduces the transmit power of 802.11b clients when 802.11g clients are in the same cell
D. uses CTS (clear to send to protect 802.11g clients from collisionswith 802.11b clients

Answer: D

QUESTION 152:

How are the keys generated with Cisco's serverbased
authentication method?

A. WEP keys are statically entered.
B. WEP keys are dynamically generated.
C. WEP keys are random values that are independent from one another.
D. WEP keys are placed in a database and sent out to the client during the association process.

Answer: B

QUESTION 153:

The WLSE CiscoAironetConversation Tools allows administrator to _____.

A. store base AP configuration
B. convertVxWorksto IOS
C. store base configuration
D. convertAPsto eitherVxWorks or IOS

Answer: B

Explanation:
UsingCiscoWorksWLSE 2.x centralized mass conversion of CiscoAironet1200 Series access pointVxWorksoperating
system configurationfilewsinto Cisco IOS Software configuration files using an expanded version of the CiscoAironet
Conversion Tool for Cisco IOS Software.

QUESTION 154:

The purpose of the 802.11g protection mechanism is to allow ____.

A. 802.11g clients to roam to 802.11bAPs
B. 802.11b client cards to transmit at 802.11g data rates
C. the transmit power of an 802.11g AP to be set at 30mW
D. 802.11b client cards to transmit in the same cell with 802.11 clients and collisions

Answer: D

QUESTION 155:

Which statement is true about Cisco's serverbased
authentication process?

A. It is mutual authentication between server and client.
B. The authentication method is one way (client to server).
C. The authentication method is one way (server to client).
D. The authentication method is dependent upon which 802.11 authentication method is used (open vs. shared key)

Answer: A

QUESTION 156:

Local Manager is a component of which devices' user interface?

A. WLSE
B. Cisco Server
C. Cisco Access Point
D. Cisco Clients Adapters

Answer: A

QUESTION 157:

What determines the height an antenna must be placed to avoid obstruction in its path? (Choose all that apply.)

A. Earth bulge
B. Fresnelzone
C. Line of sight
D. Antenna type
E. Obstruction density

Answer: A, B, C

Explanation:
There should be a clear visible path between the two antennas (you may need binoculars to see from one to the other).
There should be no obstructions between the antennas themselves. These include trees, buildings, hills etc. Also, you
need to take into account other line of sight factors including the Earth Bulge and theFresnelZone.

QUESTION 158:

You are the network engineer at Certkiller . You are performing a path analysis of a bridge site. You want a solid link to be made.
Which physical obstructions must you take into consideration? (Choose all that apply.)

A. Trees
B. Buildings
C. Electrical power lines
D. Standing water (rivers, lakes etc)
E. Elevation differences between sites

Answer: A, B, E
B:Buildings are obstructions that you need to consider when setting up bridged links.

QUESTION 159:

Certkiller has an existing fiber connection between two buildings. A road is being constructed between the two buildings. As a result, the fiber cable has been cut several times. Certkiller wants a wireless link to be used as a redundant connection between the buildings.
What protocol inherent with the bridges will aid this redundant link application?

A. 802.1x
B. 802.1d
C. 802.11d
D. 802.11e

Answer: B
802.11d is the standard for World Mode support. 802.1d is the STP standard supporting redundant L2 paths.802.1xis
not an authentication protocol called EAP

QUESTION 160:

You are a network technician at Certkiller . Certkiller hastwo BR352s programmed with ETSI channel sets and 1mW. The BR352s are running at 5.5 Mb with 21dBidish antennas and 100 ft of standardAironetcable.
What is the EIRP of this system?

A. 11dBm
B. 13.4dBm
C. 14.3dBm
D. 15.3dBm
E. 21dBm

Answer: C

Explanation:
Use Ciscowlancalculation utility to do it.

QUESTION 161:

What are three methods within the CiscoAironetwireless bridge that make the data packet transfer secure? (Choose all that apply.)

A. PGP
B. AES
C. WEP
D. Temporal Key Integrity Protocol
E. LEAP
F. 3DES

Answer: B, D, E

QUESTION 162:

Certkiller has two sites that they want to connect. However, there is no line of sight between the two buildings. What should Certkiller do? (Choose all that apply.)

A. It cannot be done due to line of sight constraints.
B. Erect a tower to clear the obstructions.
C. A third site visible to each location can be used as a repeater site to connect the two buildings.
D. They can use one of the blocking buildings as a reflector site and reflect the signal to the remote site.

Answer: B, C

QUESTION 163:

Certkiller has two offices inLondon. The two offices are 20 km apart. The company wants to use BR350s to make a wireless bridge link between the two offices.
Which of the following statement is true?

A. This cannot be done.
B. Certkiller must use 21dBidish antennas and an amplifier.
C. Certkiller must use two repeater sites and two bridges.
D. Certkiller must use a repeater site and four bridges.
E. Certkiller must use 6dBipatch antennas.

Answer: A

Explanation:
It is no way to do it unless at least 3 repeater sites are used.
Not B:Europehas strict regulations and do not permit amplifiers with antennas. Also the 21dbi antenna can already go
40km, so you would not need an amplifier.

QUESTION 164:

Which of the following antennas provides the most flexibility at the central location of a pointtomultipoint bridging application?

A. Isotropic antenna
B. 12dBiomnidirectional
C. 23 dB1 grid dish antenna

D. 21dBiparabolic dish antenna

Answer: B

Explanation:
The 12dBiantenna is ONLY for outdoor longrange applications. The antenna has a short 12" coaxpigitailmaking it
necessary to utilize antenna extension cables.
1)This antenna is designed to clamp to a mast or pole. The base of the antenna has a metal section giving it enough
strength to withstand being clamped.
2)This antenna is delivered with a set of Ubolts and friction brackets. You must supply the mast of which the antenna
will be clamped.
3)This antenna is vertically polarized and must be mounted perpendicular to the ground with the pigtail on the bottom.

QUESTION 165:

You are the network engineer at Certkiller . You want to use theAironetClient Utility (ACU) tocreate profiles for use in connecting to separateWLANs. How many profiles can be created?

A. 1
B. 4
C. 8
D. 16

Answer: D

Explanation:
ACU'sprofile manager feature allows you to create and manage up to 16 profiles (or saved configurations) for your client adapter. These profiles enable you to use your client adapter in different locations, each of
which requires different configuration settings.
Reference:
http://www.cisco.com/en/US/products/hw/wireless/ps4555/prod_release_note09186a008007f820.html#67525
http://www.cisco.com/en/US/products/hw/wireless/ps4555/products_installation_and_configuration_guide_chapter09186a008007f854.

QUESTION 166:

You are a network technician at Certkiller . Certkiller isusing WEP key hashing to enhance security. Your newly appointed Certkiller trainee wants to know which values are hashed together to create the per packet WEP key. What will your reply be? (Choose all that apply.)

A. Zero
B. WEP key
C. CRC value
D. Initialization Vector (IV)
E. Nearest prime number to WEP key

Answer: B, D

Explanation:
Perpacket
key hashing ensures that the base key of every packet is hashed with an initialization vector (IV) to create a new key for each packet. In this way, key hashing removes the predictability that an intruder relies on to determine the
WEP key by exploiting weak IVs. Broadcast key rotation eliminates broadcast keys' susceptibility to the same attacks
asunicastor static WEP keys.
Reference:
AWFL p.5-31

QUESTION 167:

Which 802.11 standard is also referred to as 802.11 Highrate?

A. 802.11a
B. 802.11b
C. 802.11g
D. 802.11i

Answer: B

Explanation:
802.11b access speed ranging from 1 Mbps up to 11 Mbps. 802.11b supports the original
802.11 data rate of 2 Mbps as well as higher speeds up to 11 Mbps

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QUESTION 168:

In which modedomost small informal wireless LANs operate in?

A. Infrastructure
B. Extended
C. Adhoc
D. Native
E. Basic

Answer: C

Explanation:
Ad Hoc network mode provides wireless client nodes with the capability to establish peertopeer network connections
with other wireless client nodes. Wireless system that does not require a Distribution System (DS) would be an adhoc
network where wireless stations communicate directly and mutually access services and applications.

QUESTION 169:

What mechanism does an 802.11a radio utilize to transmit its signal?

A. IR
B. ESS
C. DSSS
D. FHSS
E. OFDM

Answer: E

Explanation:
802.11a is one of the physical layer extensions to the 802.11 standard. Abandoning spread spectrum completely, 802.11a uses an encoding technique called Orthogonal Frequency Division Multiplexing (OFDM).

QUESTION 170:

DSSS is not used by 802.11a devices.(True or false?)

A. This is not always true must
be judge case by case.
B. False
C. True

Answer: C

Explanation:
802.11a is one of the physical layer extensions to the 802.11 standard. Abandoning spread spectrum completely, 802.11a uses an encoding technique called Orthogonal Frequency Division Multiplexing (OFDM).

QUESTION 171:

What does the acronym BSS stand for?

A. BRI Service Set
B. Base Service Set
C. Basic Service Set
D. Builtin
Service Set

Answer: C

Explanation:
Basic Service Set (BSS) networks
The basic topology set of 802.11systems is the basic service set (BSS).The BSS consists of at least one AP connected
to the wired network infrastructure and a set of wireless end stations

---

QUESTION 172:

The designatordBiis a decibel referenced toa(an) _____ radiator.

Answer: isotropic

Explanation:
dBivalue This is the ratio of the gain of an antenna as compared to an isotropic antenna.

QUESTION 173:

What is the maximum throughput of 802.11a devices?

A.11 Mbps
B.24 Mbps
C.54 Mbps
D.5.5 Mbps

Answer: C

Explanation:
802.11a equipment will operate at 5 GHz and support up to a 54 Mbps data rate.

QUESTION 174:

With regard to a WLAN in AdHoc
mode, which of the following are true?

A. An AP is required
B. An AP is not required
C. WLANsdo not support AdHoc
mode.
D. This is hard to say must
be judged case by case.

Answer: B

Explanation:
Ad Hoc network mode provides wireless client nodes with the capability to establish peertopeer
network connections
with other wireless client nodes. When configured in Ad Hoc, infrastructure components (AP's) are not required
to
establish the network connection.Wireless system that does not require a Distribution System (DS) would be an
adhoc
network where wireless stations communicate directly and mutually access services and applications.

QUESTION 175:

An Access Point is required in infrastructure mode.(True or false?)

A. This is not always true must
be judged case by case
B. False
C. True

Answer: C
Explanations
The 802.11 networking framework in which devices communicate with each other by first going through an
Access
Point is known as Infrastructure mode.

QUESTION 176:

What is equivalent rating indBmfor a radio with a power output of 100mW?

A. 10dBm
B. 20dBm
C. 50dBm
D. 100dBm

Answer: B

Explanation:
The dB scale is used to measure the power of a signal and is logarithmic in nature. In general, every 3 dB increase in
signal strength doubles the power of a signal. For example, increasing the signal strength from 10 dB to 13 dB doubles
the power of the signal. This can then be applied to the transmit power ratings associate with the Cisco wireless devices.
For example, a 100milliwatttransmit power setting translates to a 20dBm(m standing formilliwatt) signal.

QUESTION 177:

What is Cisco LEAP also known as?

A. EAP Cisco Wireless
B. AironetSecure
C. Cisco Secure Works
D. Cisco Dialin
User Service

Answer: A

Explanations:
Cisco has developed an 802.1X authentication type called EAP Cisco Wireless, which is also known as LEAP

QUESTION 178:

What does the acronym ESS stand for?

A. Extended Service Set
B. Enhanced Service Set
C. Encrypted Service Set
D. Extendable Service Set

Answer: A

Explanation:
Extended Service Set (ESS) networks Extended Service Set (ESS) topologies consist of a series of overlapping BSS
sets (each containing an AP), commonly referred to as cells.

QUESTION 179:

Only when running at the 5Ghzband can 802.11 make use of direct sequence spread spectrum.(True or false?)

A. False
B. True
C. This is not always true must
be judge case by case.

Answer: A

Explanation:
The 802.11b is primary standard, which is an extension to the original 802.11 standard. 802.11b's primary objective
defines the use of the 2.4 GHz band in radio frequency (RF) for highspeed
data communications.

QUESTION 180:

Adhoc
mode is generally good for small group of informal use.(True or false?)

A. True
B. This is not always true must
be judged case by case
C. False

Answer: A

Explanation:
Ad Hoc network mode provides wireless client nodes with the capability to establish peertopeer network connections
with other wireless client nodes. Wireless system that does not require a Distribution System (DS) would be an adhoc
network where wireless stations communicate directly and mutually access services and applications.

QUESTION 181:

With regard to 802.11b Wireless LANs, what differentiates the FCC and ETSI regulations? (Choose all that apply.)

A. power output of the radio
B. number of defined channels
C. number of clients allowed per Access Point
D. type of antenna connector used on Access Points

Answer: A, B

QUESTION 182:

At which band does 802.11b support the use of orthogonal frequency division multiplexing (OFDM)?

A. 5 GHz
B. 11 MHz
C. 2.4 GHz
D. 1.2 GHz
E. 802.11b does not support OFDM.

Answer: E
802.11b does not support OFDM, seehttp://www.webopedia.com/TERM/8/802_11.html

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QUESTION 183:

All CiscoAironet350 Series client adapters are IEEE 802.11g compliant.(True or false?)

A. True
B. False
C. This is not always true must
be judged case by case

Answer: B

Explanation:
The CiscoAironet350 is IEEE 802.11bcompliant.

QUESTION 184:

True or false, 802.11 devices work at the 900Mhzband?

A. True
B. False
C. This is not always true must
be judge case by case.

Answer: B

Explanation:
The 802.11 standards are responsible for defining the Physical and MAC layers of operation in a WLAN. The

primary
standard we focus on in the 802.11b standard, which is an extension to the original 802.11 standard. 802.11b's primary
objective defines the use of the 2.4 GHz band in radio frequency (RF) for highspeed
data communications. Cisco
Aironetproducts currently use the 2.4 GHz frequency range, which adheres to the IEEE 802.11b standard

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QUESTION 185:

What is the maximum transmission speed of 802.11 devices?

A. 1 Mbps
B. 2 Mbps
C. 5.5 Mbps
D. 11 Mbps

Answer: B

Explanation:
802.11à1 Mbps and 2 Mbps (Max.)
802.11bà5.5 Mbps and 11 Mbps.

QUESTION 186:

You are the network administrator at Certkiller . Certkiller has a wireless network that operates in adhoc mode. Your newly appointed Certkiller trainee wants to know what serves as a communication hub for users of wireless devices to connect to the wired Certkiller LAN.
What would your reply be?

A. DSS
B. ISSS
C. CSD
D. WAP
E. SSID

Answer: A

Explanation:
The distribution system, also known as the DS, refers to the topology of the wired
network that you may connect to, to access services and applications.

QUESTION 187:

Which three statements are true about 802.11gWLANs? (Choose three.)

A. 802.11g devices are backward compatible to 802.11a devices.
B. 802.11g devices are backward compatible to 802.11b devices.
C. The modulation for 54 Mb is identical to 802.11a modulation 54 Mbps.
D. The special bandwidth is identical to the bandwidth of 802.11b spectral bandwidth.

Answer: BCD

Explanation:
The 802.11g standard has been in draft form since November 2001 and is likely to be finalized until 2003. 802.11g will
deliver the same 54 Mbps maximum data rate as 802.11a, yet it offers an additional and compelling advantage backward
compatibility with 802.11b equipment. This means that 802.11b client cards will work with 802.11g access points,and 802.11g client cards will work with 802.11b access points. Because 802.11g and 802.11b operate in the
same 2.4 GHz unlicensed band, migrating to 802.11g will be an affordable choice for organizations with existing
802.11b wireless infrastructures. It should be noted that 802.11b products cannot be "software upgraded" to 802.11g
because 802.11g radios will use a different chipset than 802.11b inorderto deliver the higher data rate. However, much
likeEthernet and Fast Ethernet, 802.11g products can be commingled with 802.11b products in the same network.
Because 802.11g operate in the same unlicensed band as 802.11b, it shares the same three channels, which can limit
wireless capacity and scalability.

QUESTION 188:

When using a multiple WEP key approach to security, transmission number is placed in what part of the 802.11 data packet?

A. header
B. trailer
C. Initialization Vector (IV)
D. Payload of the pocket

Answer: A

Explanation:
The reason thereof the keys must match is because a transmit key will have to be chosen. When sending encrypted

data, the client (or access point) will use the transmit key to encrypt access point (or client) know which key to use to
decrypt the packet.
Reference: AWFL p.9-38

QUESTION 189:

Which two can be used to access the CLI screens on an Access Point?
(Choose two.)

A. IPSU
B. console port
C. telnet session
D. browser window

Answer: BC

Explanation:
To connect to the Access point you can use:
1)Console port
Requires
rollover
cable
2)Telnet
Requires
an IP address
3)Web Browser
Requires an IP address
Preferred connection
Reference:AironetWireless LAN Fundamentals p.8-7

QUESTION 190:

Which data rate is included in both the 802.11b and 802.11g specifications?

A.3 Mbps
B.8 Mbps
C.9 Mbps
D.11 Mbps

Answer: D

QUESTION 191:

Which two types of packets are able to get through prior to a client being authenticated with serverbased authentication? (Choose two.)

A. data packets
B. DHCP packets
C. EAP authentication packets
D.802.11 open authentication packets

Answer: C, D

QUESTION 192:

Where does the majority of the latency time occur during a roam?

A. the client receives a signal strength from a new AP
B. reauthenticationand resuscitation with the new AP
C. as the client scans its current channel and waits for an AP to respond, which includes the time between thefirst probe
and the start of authentication
D. as the client scans all legal 802.11 channels and selects an alternative AP, which includes the time between the first
probe and the start of authentication

Answer: D

QUESTION 193:

Which data rate is covered under the 802.11g specification?

A. 10 Mbps
B. 24 Mbps
C. 50 Mbps
D. 108 Mbps

Answer: B

Explanation:

A.W.L.F. V4 page 3-19 The 802.11g specifications supports data rates 6, 9, 12, 18, 24,
36, 48, 54.

QUESTION 194:

How does the client acquire the multicast WEP key is a serverbased authentication method?

A. The Access Point sends it to the client.
B. The authentication server sends it to the Access Point.
C. The key is programmed manually into the client through ACU.
D. The client generates the key independently based upon an algorithm.

Answer: A

QUESTION 195:

Fast Secure Roaming improves total latency time associated with the roam from > 500 ms to _____.

A. <350 ms
B. <250 ms
C. <200 ms
D. <150 ms

Answer: D

QUESTION 196:

What is the maximum data rate under the IEEE 802.11 a specification?

A. 11 Mbps
B. 36 Mbps
C. 48 Mbps
D. 54 Mbps
E. 108 Mbps

Answer: D

Explanation:
The IEEE ratified the 802.11a standard in 1999, but the first 802.11a compliant products did not begin appearing on the market until December 2001. The 802.11a standard delivers a maximum data rate of 54 Mbps and eight nonoverlappingfrequency channels resulting in increased network capacity, improved scalability, and the ability to create microcellular deployments without interference from adjacent cells.
Reference: AWFL p.2-4

QUESTION 197:

What is the user name and password for the client in the database when **** up MAC address authentication through the Access Point using Cisco Secure ACS?

A. The user name is blank and the password is blank.
B. User name is the MAC address of the client and password is blank.
C. User name is the MAC address of the client and password is DNS name of the client.
D. User name is the MAC address of the client and the password is the **** address of the client.

Answer: D

QUESTION 198:

How many different WEP keys will the client configure in each cell using Cisco's server based authentication method?

A. 1
B. 2
C. 3
D. 4

Answer: B

QUESTION 199:

Which two types of packets are forwarded through an AP prior to a client being authenticated with server based
authentication? (Choose two)

A. DHCP packets
B. Multicast data packets
C. EAP authentication packets
D. 802.11 authentication

Answer: C, D

QUESTION 200:

To support WLAN LEAP authentication, the CiscoAironetAccess Point must be configured asa(n) _____ AAA client in the ACS application.

A. IETF RADIUS
B. RADIUS WLAN
C. RADIYSAironet
D. RADIUS IOS/PIX

Answer: C

QUESTION 201:

What is the maximum number of non root bridges supported in a point to multipoint environment with a CiscoAironet1400SeriesWirelessBridge?

A.10
B.15
C.16
D.17

Answer: D

QUESTION 202:

What is the maximum Ethernet run from the CiscoAironet1400SeriesBridgeto the switch or router?

A.10 km (maximum distance for a single mode fiber)
B.100 meters (maximum distance for Fast Ethernet)
C.500 meters (CiscoAironet1400 Series uses a hybrid Ethernet/fiber interface)
D.200 meters (100 meters from Switch to Power injector, then another 100 meters to Bridge Outdoor Unit (ODU)

Answer: D

Explanation:
Remember the standard Cat 5 cable requirements still apply (maximum 328 feet or 100 meters).

QUESTION 203:

A CiscoAironetAccess Point in root mode can accept associations from _____. (Choose two)

A. WorkgroupBridge(WGB)
B. CiscoAironetbridge in non root mode
C. CiscoAironetAccess Point in root mode
D. CiscoAironetAccess Point in non root mode

Answer: A, C

QUESTION 204:

How far is typical line of site, without the use of towers, buildings,ect?

A.2 miles
B.6 miles
C.18 miles
D.24 miles

Answer: B

Explanation:
For a typical 6' (183 cm) person, the horizon appears at about 6 miles (9.7 Km). Disappearance is determined by the
height of the observer. If you have two 10' (305 cm) structures, the top of one will have line of sight to the other at
about 16 miles 26Km), but it will have minimum clearance at the horizon point.
Reference: AWFL p.4-42

QUESTION 205:

A community wants to give offices access to the station house's server when they are on the road to view police records, which could help avert potential deadly and threatening individuals. The design has several bridges distributed throughout the city to provide coverage in every area of the city.
What antenna would be most appropriate on the police cruiser?

A. An omnidirectional antenna
B. A directional antenna (Yagi)
C. A directional antenna (patch)
D. Anisotropicallydesigned antenna

Answer: A

QUESTION 206:

Which statement is true about a multipoint
bridge link using a frequency of 5745 MHz?

A. Nonroot bridges most not exceed six radio hops.
B. Generally only one root bridge isused,the rest should be nonfood bridges.

C. Only two root bridges can be supported, the rest must be nonfood bridges.
D. Multiple root and nonfood bridges are typically used to optimize the bandwidth.

Answer: A, B

QUESTION 207:

Which type of authentication server may be used for 802.1X wireless clients?

A. LDAP
B. RADIUS
C. Kerberos
D. TACACS+

Answer: B

Explanation:
With IEEE 802.1X local authentication service, CiscoAironetaccess points are configured to act as a local Remote
AuthenitcationDialIn
User Service (RADIUS) server to authenticate wireless clients when the authentication,
authorization, and accounting (AAA) server is not available. This provides authentication services for remote or branch
officeWLANswithout a RADIUS server and backup authentication services during wide area network (WAN) link or
server failure to provide access to local resources like file servers or printers.

QUESTION 208:

When using dynamic WEP keys with ACS, which three values may be used to control WEP key timeout? (Choose three)

A. RADIUS IETF 027 Session
B. External database group mapping
C. RADIUS Network Access Restriction
D. CiscoAironetSession Timeout per User
E. CiscoAironetSession Timeout per Group

Answer: A, D, E

QUESTION 209:

What are three benefits of using EAP/802.1X authentication for WLAN networks? (Choose three)

A. Detects802.11 radio interference.
B. Detects Denial of Service (DOS) attacks in the WLAN networks.
C. Dynamically generates key material for encrypting data packets.
D. Provides mutual authentication between the user and the network.
E. Allows the IT administrator to implement user or usergroup
based policies (such as dynamic VLAN assignment).

Answer: C, D, E

QUESTION 210:

When configuring static WEP keys on an AP,the transmitkey number must be _____.

A. Set for index 1.
B. Unique per client.
C. Set the same as the client key number.
D. Set differently than the client key number.

Answer: C

QUESTION 211:

If a root Access Point is set at channel 6, which channel will a repeater Access Point use to associate to it?

A. Channel 6
B. Any channel
C. Any other no overlapping
channel
D. It depends on the SSID.

Answer: A

QUESTION 212:

What is the EIRP of a system using two CiscoAironet3 Series pre programmed
with ETSI channel sets and 1mW, running at 5.5 Mb with 21dBidish antennas and 100 ft of standardAironet?

A. 11dBm
B. 14.3dBm
C. 15.3dBm
D. 21dBm

Answer: B

QUESTION 213:

How does aWorkgroupBridge(WGB) connect to Ethernet devices?(Choose two.)

A. Ethernet patch cable to a hub
B. Ethernet crossover cable to a hub
C. Ethernet patch cable to asingle device
D. Ethernet crossover cable to a single devices

Answer: A, D

QUESTION 214:

Which three settings in a repeater Access Point are necessary to match the root Access Point? (Choose three.)

A. SSID
B. DNS name
C. IP address
D. Radio Channel
E. WEP configuration
F. Role in radio network

Answer: A, D, E

QUESTION 215:

Which three values are required to be configuration ACS when adding an AP to ACS database? (Choose three.)

A. broadcast WEP key
B. RADIUS shared secret
C. AP hostname or IP address
D. Session key expiration interval
E. Unique name for AP (AAA) in ACS database

Answer: B, C, E

QUESTION 216:

ACiscoWorkgroupBridge(CAN associate to _____. (Choose two.)

A. another Cisco WGB
B. a CiscoAironetAccess Point
C. a CiscoAironetwireless bridge
D. a non Cisco 802.11b compatible Access Point

Answer: B, C

QUESTION 217:

Which two ports are monitored within hotstandby mode to determine if the primary Access Point is still online? (Choose two.)

A. SNMP
B. Radio port
C. switch port
D. Ethernet port

Answer: B, D

Explanation:
Utilizing the hot standby mode, the redundant access point can be set to monitor the main access point. This monitoring
is done via both the RF and the Ethernet connection. In the event that either fails, the redundant access point will take
over.

QUESTION 218:

What is the minimum required to complete an Assisted Site Survey?

A. perform AP radio scan
B. perform client WEP about
C. configure WEP on AP
D. terminate all other traffic on the AP

Answer: A

QUESTION 219:

Because of some timing specifications in the 802.11 standard, what is the minimum distance that an Access Point can reliably connect to a client?

A. approximately 1 mile or 1.6 km
B. approximately 2 miles or 3.2 km
C. 25+ miles or 40+ km
D. no limit

Answer: A

Explanation:
Customers may want to save money and use theworkgroup bridgeand access point in place of a bridge. If the distance
is less than 1 mile and remote end (WGB) has less than 8 end devices, this can be done. However, if the distance is
greater than 1 mile, it is recommended that a bridge be used instead of the access point. Using an access point at more
than 1 mile will not provide reliable communications. This is due to timing constraints that the 802.11 standard puts on
the return timers for packets acknowledgements. Remember, 802.11definesa LAN Local
Area Network which is typically a wireless range of up to 1000 feet.
Reference:
Aironetwireless LAN fundamentals (AWFL) Student Guide p.4-25

QUESTION 220:

What is a MetropolitanMobileNetwork solution?

A. a network that is installed on a ship for public access
B. a wireless network installed inside a school for emergency situations
C. a mobile network that can be installed in your home that is free to other
D. a wireless infrastructure for police,EMS, fire, park ranges, government employees transportation employees

Answer: D

QUESTION 221:

Which group developed and administrator the certification program for interoperability of WLAN devices?

A. Hyper LAN
B. IEEE 802.11
C. WiFiAlliances
D. Home RF Working Group

Answer: C

Explanation:

WiFiProtected Access (WPA) is theWiFiAlliance standardsbasedmechanism
to create secreteand interoperable WLAN networks. WPA provides a mechanism to authenticated keys for use in
802.11 environments as well as providing enhancements to WEP encryption to increase the robustness of the security protocol.

QUESTION 222:

How many authentication servers can beconfiguredonthe Access Point?

A. 1
B. 2
C. 3
D. 4

Answer: D

QUESTION 223:

What is the functionalityof a Networksin Motion architecture?

A. allows vehicles to wirelessly roam while in a WAN
B. allows employees to be mobile at home and in the office
C. allows for automated repair of laptops and other hardware
D. allows employees to wirelessly roam from floor to floor including **

Answer: A

QUESTION 224:

Whatis the benefitsof speared spectrum technology OFDM modulation?

A. Range improves data rate increases.
B. It makes 802.11 g and 802.11a interoperable.
C. It requires lessspectralbandwiththan CCK modulation.
D. It has better performed formultipathinterferences than CCK modulation.

Answer: D

QUESTION 225:

Exhibit: ***MISSING***

On the Authenticator Configuration screen within the Access Point, what value should you use for the port setting if you were using EAP authentication with Cisco **** ACS

A. 1218
B. 1645
C. 1564
D. 1812

Answer: B

QUESTION 226:

In a Metropolitan Area Network design, the backbone wireless equipment being used is ____.

A. APs
B. wireless bridge
C. inline power switches
D. CiscoAironetClient Adapters

Answer: B

QUESTION 227:

In theU.S., nolicensingisrequired for which four RF bands? (Choose four.)

A. 9029 MHz
B. 800820 MHz
C. 2.4002.483 GHz
D. 2.5002.600 GHz
E. 5.150.350 GHz
F. 5.7255.825 GHz

Answer: A, C, E, F

QUESTION 228:

In a Network in Motion architecture isMAR?

A. Mobile Access Radio
B. Media access Router
C. Mobile Access Router
D. Metropolitan Area Router

E. Metropolitan Area Radio

Answer: C

QUESTION 229:

The IP Setup Utility (IPS) **** based to configure which two Access Point parameters? (Choose two.)

A. SSID
B. user name
C. IP address
D. RF channel

Answer: A, C

QUESTION 230:

BothLEDsare not in the wireless LAN clientadapater. What is a possible cause for this?

A. The AP is not properly configured.
B. The laptop is not getting an IP address.
C. The wireless LAN client adapter is not associated to an AP.
D. The wireless LAN client adapter is not fully inserted into theCardBusport.

Answer: D

QUESTION 231:

Which two actions can be performed using the system tray icon? (Choose two)

A. Switch profiles
B. Update a driver
C. Configure a profile
D. Open a client utility

Answer: A, D

QUESTION 232:

Which two operating systems are supported in the CiscoAironet802.a/b/gCardBusclient card? (Choose two)

A. MAC OS X

B. Microsoft WinCE
C. Microsoft Windows XP
D. Microsoft Windows 2000

Answer: C, D

QUESTION 233:

Which two 802.1X security types do the CiscoAironetdrivers on WinCE.NET devices support? (Choose two)

A. VPN
B. PEAP
C. Kerberos
D. Cisco LEAP

Answer: B, D

QUESTION 234:

Which program can be used to push profiles out to multiple CiscoAironetclients?

A. ACU
B. ADU
C. ACM
D. ACAU

Answer: D

QUESTION 235:

The Structured Wireless Aware Network (SWAN) solution _____.

A. Manages the configurations on WLAN clients.
B. Usesa dumbAPsthat are managed by a central AP controller.
C. Is a structured WLAN manager installed on Cisco switches for nonCiscoAPs.
D. Focuses on the management of configurations for radios, mobility, security, QoS, and the overall WLAN network.

Answer: D

QUESTION 236:

When performing a site survey, the BSA is known as the _____.

A. Basic Service Area
B. Building Service Area
C. Broadcast Service Area
D. Broadband Switched Access

Answer: A

Explanation:
The basic service area (BSA) is the area of RF coverage provided by an access point, also referred to as a "microcell".
To extend the BSA, or to simply add wireless devices and extend range of an existing wired system, an access point
can be added. (As the name "access point" indicates, this unit is the point at which wireless clients can access the
network).

QUESTION 237:

A WLAN is a local area network of computers connected by _____.

A. T1 lines
B. Fiber optics
C. Radio frequencies
D. Twistedpair cables

Answer: C

QUESTION 238:

What is the performance impact of 802.11b client in cell coverage of an 802.11g AP?

A. Forces the AP to load balance.
B. Reduces the throughput of 802.11g clients associated to that AP.
C. Slows the throughput of 802.11g clients to that of the fastest 802.11b client in the cell.
D. Forces the AP adhering to the 802.11g specification to turn off 802.11g data rates.

Answer: B

QUESTION 239:

The intended use of a WLAN is to _____.

A. Completely replace traditional wired network.
B. Connect to the corporate network when remote.
C. Provide a cost free alternative to cellular technologies.
D. Overlay and/or extend the connections to a wired network.

Answer: D

QUESTION 240:

Which statement about channel reuse is true?

A. It cannot be used with 802.11g clients.
B. It must not be used when thereis a large number of clients.
C. It optimizes the use of available 802.11spectrumin a given area.
D. It eliminates duplication of broadcast and multicast packets to a client.

Answer: C

QUESTION 241:

Which of the following statements are true with regard to an isotropic antenna?

A. The horizontal bandwidth is 360 degrees, and the verticalbeamwidthis 90 degrees.
B. The horizontal bandwidth is 75 degrees, and the verticalbeamwidthis 90 degrees.
C. The horizontal bandwidth is 90 degrees, and the verticalbeamwidthis 75 degrees.
D. The horizontal bandwidth is 360 degrees, and the verticalbeamwidthis 360 degrees.

Answer: D

Explanation:
Isotropic=360/360Dipole=360/75

QUESTION 242:

Which of the following authentication types are defined by 802.11? (Choose all that apply.)

A. Open authentication
B. Closed authentication
C. EAPTLS authentication
D. EAPMO5 authentication
E. Sharedkey authentication

Answer: A, C, E

QUESTION 243:

Which of the following statements are true? (Choose all that apply.)

A. Two CiscoAironetAccess Points can be used to connect a LAN to LAN.
B. Two CiscoAironetwireless bridges can be used to connect a LAN to LAN.
C. CiscoAironetAccess Points are designed to support mobile users.
D. A CiscoAironetwireless bridge can be used as an Access Point to allow 802.11b clients wireless access.

Answer: B, C, D

QUESTION 244:

Upon which three aspects does the range of coverage of a CiscoAironetwireless bridge depend? (Choose all that apply.)

A. Radio sensitivity
B. Radio transmit power
C. Chipping sequence of the transmitter
D. Antenna system (antenna gain/cabling)
E. Polarization of the antenna (horizontal/vertical)

Answer: B, D, E

Explanation:
B: The more power the large area can be cover.
D :The more gain, the less area it will cover but it can travel very far)
E: The coverage area also affect by the angles of the antenna)

QUESTION 245:

Certkiller has a wireless link between two buildings using directional antennas. The installation was done in late December and was functioning well for a number of months. In May the following year the link started to have problems. What are the likely causes of the problems? (Choose all that apply.)

A. A cell phone tower was placed near one of the locations.
B. The connectors were not waterproofed and corrosion has built up in the cable.
C. There are trees between the two buildings that are not just starting to bud with new leaves.
D. The local power company has erected power lines that cross the line of sight of the bridge links.

Answer: B, C

Explanation:
Tough question. With the months being November and April it is
more clear. November leavesare scare and falling off, April is the Spring and leaves
start to grow backon , thus absorbing the signal.

QUESTION 246:

You are the network engineer at Certkiller . You wanta CiscoAironetwireless bridge to pass IP traffic from one LAN to another LAN. What must you do?

A. Set an IP address on both bridges.
B. Set the MTU size on the bridges to 1518 bytes.
C. No IP adress needs to be set in either bridge; it passes all traffic.
D. The root bridge's IP address must be set as the gateway for all the non root bridges' IP stack.

Answer: C

Explanation:
Thebridgepasses IP, IPX, AT, etc traffic by default. You only need to set radio parameters such as SSID and root mode for the bridge to work. An IP address on the bridge is only required for management. We believe that
the most correct answer is C.

QUESTION 247:

What should you do before you perform a site survey (Choosethree)

A. Get map of building infrastructure.
B. Find out how many users and what kind of applications are used.
C. Use antenna radiation plot to predict maximum Access Point coverage.
D. Select what kind of Access Point and antenna meet the customer needs.

Answer: A, B, D

QUESTION 248:

What is the minimum overlap in RF coverage that is needed to allow a repeater to associate to a root Access Point?

A. 25%
B. 50%

C. 75%
D. 100%

Answer: B

QUESTION 249:

A hospital wants to make their heart monitoring equipment wireless using 2.4 GHz (802.11q) technology. The administrator of the hospital fears that if an Access Point goes offline the patients in that area will lose their connection to the backbone. The administrator wants continual access. Which feature of CiscoAironetAccess Points helps facilitate continual access?

A. HSRP
B. VLAN
C. Hotstandby
D. Spanning Tree (STP)

Answer: C

QUESTION 250:

Certkiller has a wireless link between two buildings using directional antennas. The installation was done in late November and was functioning well for a number of months. In April the following year the link started to have problems.
What are the likely causes of the problems? (Choose all that apply.)

A. A cell phone tower was placed near one of the locations.
B. The connectors were not waterproofed and corrosion has built up in the cable.
C. There are trees between the two buildings that are not just starting to bud with new leaves.
D. The local power company has erected power lines that cross the line of sight of the bridge links.

Answer: B, C
November leavesare scare and falling off, April is the Spring and leaves start to grow backon , thus absorbing the signal.