Exam Code: PW0-104

Exam Name: Wireless LAN Administration Exam

Vendor: CWNP

Version: DEMO

Part: A

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

2: What causes an excessively high Voltage Standing Wave Ratio (VSWR) in an 802.11 WLAN?
A.An impedance mismatch between devices in series with the main RF signal
B.Reflected DC voltage on the main RF signal line
C.Refracted RF signal peaks along the main signal path
D.Crosstalk (inductance) between adjacent conductors
Correct Answers: A

3: What factors affect the distance that an RF signal can be effectively received?
A.Transmitting station's antenna type
B.Receiving station's radio sensitivity
C.Fresnel zone blockage
D.Power over Ethernet (PoE) usage
E.Antenna connector type
F.Distance between access points
Correct Answers: A B C

4: As an RF wave propagates through space, the wave front experiences natural expansion. What is the detrimental effect of this expansion in a WLAN system?
A.Linear Diffusion Loss
B.Signal Attenuation
C.Transmission Obfuscation
D.Fresnel Zone Thinning
E.Azimuth Inflation
Correct Answers: B

5: Given: ABC Company's network administrator was just asked to install a 5 GHz OFDM bridge link between two buildings. He connected a WLAN bridge with a 50-ohm output to a 50-ohm RF coaxial cable.
He connected the other end of the RF coaxial cable to a 25-ohm, 6 dBi Yagi antenna.
What is the maximum VSWR between the WLAN bridge and the Yagi antenna?
A.1.0:1
B.1.1:1
C.1.2:1

D.1.5:1
E.2.0:1
F.1.0:2
Correct Answers: E

6: Given: Return Loss is the decrease of forward energy in a system because some of the power is being reflected back toward the transmitter.
What can cause a high return loss in an RF transmission system?
A.A Voltage Standing Wave Ratio (VSWR) of 1.5:1
B.An impedance mismatch between devices in the RF system
C.Cross-polarization of the RF signal as it passes through the RF system
D.The use of multiple connector types in the RF system (e.g. N-type and SMA-type)
E.Low output power at the transmitter and use of a high-gain antenna
Correct Answers: B

7: What factor is NOT taken into account when calculating the System Operating Margin of a point-to-point outdoor WLAN bridge link?
A.Operating frequency
B.Tx antenna gain
C.Tx power
D.Rx cable loss
E.Antenna height
F.Rx sensitivity
G.Distance
Correct Answers: E

8: Given: A WLAN transmitter that emits a 200 mW signal is connected to a cable with a 9 dB loss.
if the cable is connected to an antenna with a 10 dBi gain, what is the EIRP at the antenna element?
A.50 mW
B.250 mW
C.500 mW
D.750 mW
E.1000 mW
Correct Answers: B

9: In a long-distance RF link, what statement about Fade Margin is true?
A.Fade Margin is an amount of signal strength in addition to the Link Budget.
B.The Fade Margin of a long-distance RF link does not account for antenna gain.
C.Fade Margin is rarely taken into account on a long-distance RF link.
D.Fade Margin and Jamming Margin are synonymous, interchangeable terms.
Correct Answers: A

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

11: Given: A 802.11 WLAN transmitter that emits an 80 mW signal is connected to a cable with 3 dB loss.
The cable is connected to an antenna with a 16 dBi gain.
What is the resultant antenna power output (EIRP)?
A.160 mW
B.320 mW
C.800 mW
D.1200 mW
E.1600 mW
Correct Answers: E

12: What factors are required to establish a high quality 2.4 GHz point-to-point RF link at a distance of 3 miles (5 kilometers)?
A.Accurate Link Budget calculations
B.Accurate Earth Bulge calculations
C.System Operating Margin (SOM) of at least 20 dB
D.A minimum antenna gain of 13 dBi
E.A Fresnel Zone that is at least 60% clear of obstructions
Correct Answers: A E

13: What phrase defines Equivalent Isotropically Radiated Power (EIRP)?
A.Transmitter output power plus attached cable and connector loss
B.Transmitter output power only
C.Power supplied to the antenna plus antenna gain
D.Reflected power due to an impedance mismatch in the signal path
E.Power supplied to an RF antenna
Correct Answers: C

14: What term describes the effect of increasing the intensity of an RF wave when the RF antenna lobe is focused in a desired direction?
A.Directional Extension
B.Active Amplification
C.Beam Compression
D.Passive Gain
E.Phased Propagation
Correct Answers: D

15: Which antenna types can be used in a scenario where simple receive diversity is required?
A.Omni-directional
B.Patch
C.Yagi
D.Grid
E.MIMO Sector
F.Sector Array
Correct Answers: A B