

## Question: 1

An RF signal sometimes bends as it passes through some material other than free space. What is the term that describes this behavior?

- A. Reflection
- B. Refraction
- C. Scattering
- D. Warping

**Answer: B**

## Question: 2

What can an impedance mismatch in the RF cables and connectors cause?

- A. Fewer MCS values in the MCS table
- B. Excessive VSWR
- C. Increased amplitude of the RF signal
- D. Increased range of the RF signal

**Answer: B**

Explanation:

Reference:

[https://books.google.com.pk/books?id=uA68E68OqQgC&pg=PA235&lpg=PA235&dq=impedance+mismatch+in+the+RF+cables+and+connectors+cause&source=bl&ots=WEynkTBqO1&sig=-Hm\\_d26REw\\_UrVZtz20xErL4Rg&hl=en&sa=X&ved=0ahUKEwj5rvW0j57ZAhVMzqQKHeCGB0kQ6AEISDAF#v=onepage&q=impedance%20mismatch%20in%20the%20RF%20cables%20and%20connectors%20cause&f=false](https://books.google.com.pk/books?id=uA68E68OqQgC&pg=PA235&lpg=PA235&dq=impedance+mismatch+in+the+RF+cables+and+connectors+cause&source=bl&ots=WEynkTBqO1&sig=-Hm_d26REw_UrVZtz20xErL4Rg&hl=en&sa=X&ved=0ahUKEwj5rvW0j57ZAhVMzqQKHeCGB0kQ6AEISDAF#v=onepage&q=impedance%20mismatch%20in%20the%20RF%20cables%20and%20connectors%20cause&f=false)

## Question: 3

What factor does not influence the distance at which an RF signal can be effectively received?

- A. Free Space Path Loss
- B. Receiving station's radio sensitivity
- C. Transmitting station's output power
- D. Receiving station's output power

**Answer: B**

### Question: 4

A WLAN transmitter that emits a 50 mW signal is connected to a cable with 3 dB loss. If the cable is connected to an antenna with 9dBi gain, what is the EIRP at the antenna element?

- A. 23 dBm
- B. 26 dBm
- C. 13 dBm
- D. 10 dBm

**Answer: A**

### Question: 5

In a long-distance RF link, which statement about Fade Margin is true?

- A. The Fade Margin is a measurement of signal loss through free space and is a function of frequency and distance.
- B. The Fade Margin of a long-distance radio link should be equivalent to the receiver's low noise filter gain.
- C. A Fade Margin is unnecessary on a long-distance RF link if more than 80% of
- D. Fade Margin is an additional pad of signal strength designed into the RF system to compensate for unpredictable signal fading.

**Answer: D**

### Question: 6

What wireless networking term describes the increase of RF energy in an intentional direction with the use of an antenna?

- A. Directed Radiation
- B. Active Amplification
- C. Passive Gain
- D. Beam Digression

**Answer: C**

Explanation:

Reference:

[https://books.google.com.pk/books?id=saC\\_2j-lwwIC&pg=PA51&lpg=PA51&dq=passive+gain+increase+of+RF+energy+in+an+intentional+direction+wit](https://books.google.com.pk/books?id=saC_2j-lwwIC&pg=PA51&lpg=PA51&dq=passive+gain+increase+of+RF+energy+in+an+intentional+direction+wit)

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### Question: 7

Which directional antenna types are commonly used by indoor Wi-Fi devices in a MIMO multiple spatial stream implementation?

- A. Dish and grid
- B. Dipole and yagi
- C. Grid and sector
- D. Patch and panel

**Answer: D**

### Question: 8

What statement about the beamwidth of an RF antenna is true?

- A. Horizontal and vertical beamwidth are calculated at the point where the main lobe decreases power by 3 dB.
- B. Vertical beamwidth is displayed (in degrees) on the antenna's Azimuth chart.
- C. When antenna gain is lower, the beamwidth is also lower in both the horizontal and vertical dimensions.
- D. The beamwidth patterns on an antenna polar chart indicate the point at which the RF signal stops propagating.

**Answer: A**

### Question: 9

Which one of the following is not a factor considered when calculating the Link Budget for an outdoor point-to-point WLAN bridge link?

- A. MU-MIMO capabilities of the bridges
- B. Receive antenna gain
- C. Transmit power
- D. Operating frequency

**Answer: A**

## Question: 10

What best describes WPA2 in relation to 802.11 wireless networks?

- A. WPA2 is specified in the 802.11 standard as implementing CCMP/AES.
- B. WPA2 is the standard that defines security for WLANs.
- C. WPA2 is a certification created by the Wi-Fi Alliance that validates devices correctly implement CCMP/AES.
- D. WPA2 is the second version of WPA and it enhances security through the use of TKIP instead of WEP.

**Answer: B**