

1. Professor Messer is primarily concerned with four IEEE wireless standards. What are they?
802.11a, 802.11b, 802.11g, 802.11n

2. In what frequency range does 802.11 a operate?

5 GHz

3. In what frequency range does 802.11b operate?

2.4 GHz

4. With which standard is 802.11g backwards compatible?

802.11b

5. Which is the most current of the 802.11 standards with the highest throughput?

802.11n

6. Which wireless network standard specifies a network that operates in the 2.4 GHz range at 54?
Mbps?

802.11g

7. What wireless network type can operate at both 2.4 GHz and 5 GHz?

802.11n

1. Which wireless network standard specifies a network that operates in the 2.4 GHz range at 54?
Mbps?

802.11b

2. Which wireless encryption type is most secure?

WPA, it used to be WEP but WEP was cracked and most ISPs recommend you use WPA as a standard.

3. What wireless network type can operate at both 2.4 GHz and 5 GHz?

802.11n

1. What does the term "Security through obscurity" mean?

It means by hiding your SSID you may have increased security. It's like having your front door covered by bushes and thinking you don't have to lock the door. Pretty much you may have increased your security by hiding your IP address and SSID.

2. In wireless networking, what is the SSID?

The SSID is the name of the wireless network you are connecting to.

3. Name an advantage and a disadvantage of turning off SSID broadcast?

An advantage is that people can't easily discover your access point. Disadvantage is that it is not impossible to discover your network if someone really wants to do damage to your network.

4. Does hiding the SSID of a wireless access point necessarily increase security?

No, if someone really wants to do damage to your wireless network they would find a way to get your SSID. It might prevent some people from connecting to your network if they aren't tech savvy.

5. Is using the default username and password for your wireless router security vulnerability?

Yes. It is recommended that you change the password and username immediately after you start using it. Not only can people change your login credentials but they can see what sites you've been on.

1. What type of antenna distributes the signal evenly on all sides?

Omni Directional antennas send signals evenly in all directions.

2. What are some of the predictable sources of wireless interference?

Phones, PAN, walls, radio-transmitting devices that work on the same frequencies as the wireless network.

3. IEEE 802.11 supports multiple antennas. What is this technology called?

Multiple Inputs, Multiple Outputs.

4. What type of modulation does 802.11n utilize? BPSK, QPSK, 16-QAM, and 64QAM.

1. What would you expect to be the most common type of wireless antenna?

Omnidirectional Antenna

2. If you needed to optimize the distance that you send your wireless signal, what type of antenna would you use?

Directional Antenna

3. What is the unit used to describe antenna performance?

Decibels

4. How many db does it take to represent double the antenna performance? What is the name for the type of scale used here?

3 db for double performance.

1. Name four common sources of wireless interference.

Microwaves, Cordless Phones, Bluetooth Headsets, High Power Sources, Fluorescent Lights.

2. For what would you use a spectrum analyzer? To see where in the access point range there could be any devices that cause interference.

1. Which standards use the 5 GHz range?

802.11a, 802.11n

2. What type of multiplexing is used in the 5 GHz range?

Orthogonal Frequency Division Multiplexing

3. How many data streams can an 802.11 n network utilize?

It can send and receive 4 streams.

4. How many channels are used by 802.11 b in the US?

11 channels.

5. How wide of a channel does 802.11 g utilize?

40 MHz

1. Which wireless network standard specifies a network that operates in the 2.4 GHz range at 54 Mbps?

802.11b

2. Which wireless encryption type is most secure?

WPA2

3. WPA or WPA2

WPA2 is the most recent and secure version of the original WPA.

4. What wireless network type can operate at both 2.4 GHz and 5 GHz? 802.11n is backwards compatible with both 2.4ghz and 5ghz.

1. What is an SSID?

It is the Set Service Identifier. To make it simple it is the name the wireless access point transmits for devices to connect to.

2. What is a BSID?

Basic Service Set Identification. Identifies the MAC address of a station in an access point.

1. Are 802.11 g devices backwards compatible with 802.11b?

Yes, 802.11g came out after b and they are backwards compatible.

2. Would a mixed mode 802.11 n network be as fast as a pure 802.11 n network? No.