CCST Networking – Module 10 Quiz

Questions

1. You are working on a customer's wireless network, which has seven wireless access points (APs). These APs are all controlled by and configured from a wireless LAN controller. Which of the following terms best characterizes the customer's APs?

    a. clustered
    b. autonomous
    c. lightweight
    d. multi-homed

2. Wi-Fi 6E uses which frequency band?

    a. 900 MHz
    b. 2.4 GHz
    c. 5 GHz
    d. 6 GHz

3. Which wireless networking standard is also known as Wi-Fi 5?

    a. 802.11n
    b. 802.11ac
    c. 802.11g
    d. 802.11ax

4. Identify the wireless standard that uses OFDMA as its transmission method.

    a. Wi-Fi 6
    b. Wi-Fi 3
    c. Wi-Fi 5
    d. Wi-Fi 4

5. A Bluetooth device is most likely to interfere with which of the following wireless standards?

    a. Wi-Fi 2
    b. Wi-Fi 3
    c. Wi-Fi 5
    d. Wi-Fi 6E

6. Identify the Internet of Things (IoT) technology that's least likely to interfere with a wireless network.

    a. Bluetooth
    b. ANT/ANT+
    c. Zigbee
    d. Z-Wave

7. Of the cellular technologies listed, which one has the maximum theoretical speed?

    a. 5G mmWave
    b. 5G Sub-6GHz
    c. LTE
    d. NFC

Questions and Answers

1. You are working on a customer's wireless network, which has seven wireless access points (APs). These APs are all controlled by and configured from a wireless LAN controller. Which of the following terms best characterizes the customer's APs?

    a. clustered
    b. autonomous
    c. lightweight
    d. multi-homed

    Answer: c

    Explanation: The two common types of AP deployments are: (1) autonomous and (2) lightweight.

    Autonomous APs must be configured individually, while lightweight APs are controlled by and configured from a wireless LAN (WLAN) controller.

    Video Reference: Wireless Access Points

2. Wi-Fi 6E uses which frequency band?

    a. 900 MHz
    b. 2.4 GHz
    c. 5 GHz
    d. 6 GHz

    Answer: d

    Explanation: Wi-Fi 6 can use the 2.4 GHz band and/or the 5 GHz band.

    Wi-Fi 6E is an extension to Wi-Fi 6 that provides additional channels in the 6 GHz band.

    The 900 MHz band is not used by Wi-Fi networks.

    Video Reference: Frequency Bands

3. Which wireless networking standard is also known as Wi-Fi 5?

    a. 802.11n
    b. 802.11ac
    c. 802.11g
    d. 802.11ax

Answer: b

Explanation: The 802.11ac standard is also known as Wi-Fi 5.

The 802.11n standard is known as Wi-Fi 4, while the 802.11g standard is known as Wi-Fi 3), and the 802.11ax standard is known as Wi-Fi 6.

Video Reference: Wireless Standards

4. Identify the wireless standard that uses OFDMA as its transmission method.

    a. Wi-Fi 6
    b. Wi-Fi 3
    c. Wi-Fi 5
    d. Wi-Fi 4

Answer: a

Explanation: 802.11ax (also known as Wi-Fi 6) uses Orthogonal Frequency Division Multiple Access (OFDMA) for its transmission method, while Wi-Fi 3, Wi-Fi 4, and Wi-Fi 5 use Orthogonal Frequency Division Multiplexing (OFDM).

One advantage of OFDMA over OFDM is that an AP using OFDMA informs wireless clients when they are allowed to transmit (i.e., their Target Wake Time). This helps eliminates collisions that could occur with OFDM.

Video Reference: Transmission Methods

5. A Bluetooth device is most likely to interfere with which of the following wireless standards?

    a. Wi-Fi 2
    b. Wi-Fi 3
    c. Wi-Fi 5
    d. Wi-Fi 6E

Answer: b

Explanation: Bluetooth typically operates in the 2.4 GHz frequency band and is therefore most likely to cause interference with the Wi-Fi 3 (802.11g) option, which also uses the 2.4 GHz band.

Wi-Fi 2 (802.11a) and Wi-Fi 5 (802.11ac) each use the 5 GHz band, and Wi-Fi 6E (an extension to Wi-Fi 6) uses the 6 GHz band.

Video Reference: Wireless Interference

6. Identify the Internet of Things (IoT) technology that's least likely to interfere with a wireless network.

    a. Bluetooth
    b. ANT/ANT+
    c. Zigbee
    d. Z-Wave

Answer: d

Explanation: Z-Wave only operates in the 900 MHz frequency band and is therefore the least likely option to interfere with a wireless network, which would typically be using the 2.4 GHz band, the 5 GHz band, and/or the 6 GHz band.

Although Zigbee can operate in the 900 MHz band, it can also operate in the 2.4 GHz band, making it a potential source of wireless interference.

Finally, Bluetooth and ANT/ANT+ operate in the 2.4 GHz band.

Video Reference: Internet of Things (IoT)

7. Of the cellular technologies listed, which one has the maximum theoretical speed?

    a. 5G mmWave
    b. 5G Sub-6GHz
    c. LTE
    d. NFC

Answer: a

Explanation: Of the options listed 5G millimeter Wave (mmWave) offers the maximum theoretical speed of 5 Gbps.

5G Sub-6GHz typically offers speeds somewhere between 4G speeds (100 Mbps) and 5G mmWave speeds (5 Gbps).

LTE, which stands for (Long Term Evolution), offers speeds over a wide range (20 Mbps – 100 Mbps).

NFC (Near-Field Communication) is not a cellular technology.

Video Reference: Cellular Networks