

Wired And Wireless Local Area Networks Quiz Answer Key PDF

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Which of the following cable types is typically used in wired LANs?

- A. CoaxIAL
- B. Twisted Pair ✓**
- C. HDMI
- D. USB

Which frequency band is commonly used by Wi-Fi networks?

- A. 1 GHz
- B. 2.4 GHz ✓**
- C. 3.5 GHz
- D. 4.9 GHz

In a wired LAN, what device is used to connect multiple devices within the network?

- A. Modem
- B. Switch ✓**
- C. Access Point
- D. Repeater

Which of the following is a security protocol used in wireless networks?

- A. SSL
- B. WEP ✓**
- C. HTTPS
- D. FTP

How does the choice of frequency band (2.4 GHz vs. 5 GHz) affect the performance of a wireless LAN?

The 2.4 GHz band is better for longer range and penetrating obstacles, but it is more crowded and slower, while the 5 GHz band offers faster speeds and less interference but has a shorter range.

Which of the following Wi-Fi standards support both 2.4 GHz and 5 GHz bands? (Select all that apply)

- A. 802.11 a
- B. 802.11 n ✓**
- C. 802.11 ac ✓**
- D. 802.11 b

Which security protocols are considered more secure for wireless networks? (Select all that apply)

- A. WEP
- B. WPA
- C. WPA2 ✓**
- D. WPA3 ✓**

What is a common topology used in wired LANs?

- A. Mesh
- B. Star ✓**
- C. Tree
- D. Hybrid

What are the advantages of using a wireless LAN? (Select all that apply)

- A. Increased mobility ✓**
- B. Easier scalability ✓**
- C. Higher speed than wired LAN
- D. Reduced installation cost ✓**

Which of the following are benefits of using a wired LAN? (Select all that apply)

- A. Higher security ✓**
- B. Greater mobility
- C. Lower latency ✓**

D. Easier installation

Describe the role of an access point in a wireless LAN.

The role of an access point in a wireless LAN is to provide a connection point for wireless devices to access the network, facilitating communication and data transfer between these devices and the wired network.

Discuss the impact of network topology on the performance and reliability of a wired LAN.

The impact of network topology on the performance and reliability of a wired LAN is profound; for instance, star topology offers better performance and reliability due to centralized management and easier fault isolation, while bus topology may suffer from performance degradation and reliability issues as more devices are added.

Why might an organization choose to implement a hybrid network combining both wired and wireless technologies?

A hybrid network combines wired and wireless technologies to enhance flexibility, scalability, and performance, allowing organizations to meet diverse connectivity requirements.

What are common issues that can affect wireless LAN performance? (Select all that apply)

- A. Signal interference ✓**
- B. Cable faults
- C. Connectivity drops ✓**
- D. Port failures

Which Wi-Fi standard is known for operating on the 5 GHz band?

- A. 802.11 b
- B. 802.11 g
- C. 802.11 n
- D. 802.11 a ✓**

Explain the main differences between a wired LAN and a wireless LAN.

The main differences between a wired LAN and a wireless LAN are that wired LANs rely on physical cables for data transmission, resulting in faster and more reliable connections, whereas wireless LANs use radio signals, allowing for greater mobility and flexibility but often at the cost of speed and security.

What is the most common technology used in wired LANs?

- A. Bluetooth
- B. Ethernet ✓**
- C. Wi-Fi
- D. NFC

What does SSID stand for in wireless networking?

- A. Secure System Identification
- B. Service Set Identifier ✓**
- C. Standard Signal Identification
- D. System Service ID

Which components are essential for a wireless LAN? (Select all that apply)

- A. Router ✓**
- B. Access Point ✓**
- C. Ethernet Cable
- D. SSID ✓**

What are the potential security risks associated with wireless LANs, and how can they be mitigated?

Potential security risks associated with wireless LANs include unauthorized access, eavesdropping, and data interception. To mitigate these risks, organizations should implement strong encryption protocols (like WPA3), use secure authentication methods (such as 802.1X), and regularly monitor the network for unusual activity.