

[Instructions](#)

1. Which model defines seven layers of networking protocols?

1 point

- ☒ OSI model
- ☐ DoD model
- ☐ TCP/IP model
- ☐ Ethernet model

2. Which wireless technology allows devices to connect without the need for a central access point?

1 point

- ☒ Ad-hoc mode
- ☐ Infrastructure mode
- ☐ Mesh networking
- ☐ Wi-Fi Direct

3. Which subnet mask is associated with a Class C network?

1 point

- ☐ 255.0.0.0
- ☐ 255.255.0.0
- ☒ 255.255.255.0
- ☐ 255.255.255.255

4. Which transport protocol is commonly used for web browsing, file transfer, and email communication?

1 point

- ☒ TCP
- ☐ UDP

5. Which wireless standard operates in the 5 GHz frequency band?

1 point

- ☒ 802.11a
- ☐ 802.11b
- ☐ 802.11g
- ☐ 802.11n

6. Which layer of the OSI model provides encryption and decryption of data for secure communication?

1 point

- ☒ Presentation layer
- ☐ Session layer
- ☐ Application layer
- ☐ Physical layer

7. Which wireless technology is commonly used for contactless payment systems?

1 point

- ☐ Bluetooth
- ☒ NFC
- ☐ Zigbee
- ☐ Z-Wave

8. Which IP address class range is reserved for multicast addresses?

1 point

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1 point

- ☐ Class A
- ☐ Class B
- ☐ Class C
- ☒ Class D

9. Which network protocol provides secure file transfer over an encrypted connection?

1 point

- ☐ DHCP
- ☐ DNS
- ☒ FTPS
- ☐ SMTP

10. What is the loopback address in IPv4?

1 point

- ☐ 127.0.0.0
- ☒ 127.0.0.1
- ☐ 192.168.0.1
- ☐ 10.0.0.0

11. How many bits are used to represent the network portion of an IPv4 address in a Class B network?

1 point

- ☐ 8 bits
- ☒ 16 bits
- ☐ 24 bits
- ☐ 32 bits

12. Which device can be used to create logical network segments and improve network performance by reducing network congestion?

1 point

- ☒ Network switch
- ☐ Router
- ☐ Modem
- ☐ Repeater

13. Which device can perform Network Address Translation (NAT) to allow multiple devices on a private network to share a single public IP address?

1 point

- ☐ Network switch
- ☒ Router
- ☐ Modem
- ☐ Bridge

14. Which device provides a connection between a local area network (LAN) and the internet service provider (ISP)?

1 point

- ☐ Network switch
- ☐ Router
- ☒ Modem
- ☐ Firewall

15. Which transport protocol is responsible for error checking and retransmission of lost packets?

1 point

- ☒ TCP
- ☐ UDP

