

1. Which layer in the Transmission Control Protocol/Internet Protocol (TCP/IP) model is responsible for defining a way to interpret signals so network devices can communicate?

1 / 1 point

- ☐ Network
- ☐ Application
- ☒ Data link
- ☐ Transport

✓ Correct

2. Which protocol provides mechanisms ensuring data is reliably delivered?

1 / 1 point

- ☐ Dynamic Host Configuration Protocol (DHCP)
- ☐ Internet Protocol (IP)
- ☐ User Datagram Protocol (UDP)
- ☒ Transmission Control Protocol (TCP)

✓ Correct

3. Which layer of the network model includes specifications for cables and connectors and how signals are sent over these connections?

1 / 1 point

- ☐ Transport
- ☒ Physical
- ☐ Network
- ☐ Data link

✓ Correct

4. Multiple systems try to send data at the same time. The electrical pulses sent across the cable interfere with each other. What type of network segment is being used? 1 / 1 point

- ☐ Wide Area Network (WAN)
- ☒ Collision domain
- ☐ Subnet
- ☐ Local Area Network (LAN)

☒ **Correct**

5. Which device forwards data and operates at layer three of the Transmission Control Protocol/Internet Protocol (TCP/IP) model? 1 / 1 point

- ☐ Client
- ☐ Switch
- ☒ Router
- ☐ Hub

☒ **Correct**

6. Which protocol do routers use to determine the optimal path to forward traffic? 1 / 1 point

- ☐ User Datagram Protocol (UDP)
- ☐ Internet Protocol (IP)
- ☐ Transmission Control Protocol (TCP)
- ☒ Border Gateway Protocol (BGP)

☒ **Correct**

7. Which type of communication does a telephone use?

1 / 1 point

- ☒ Full duplex
- ☐ Simplex
- ☐ Half Duplex
- ☐ Twisted



Correct

Please review the video on [cabling](#).

8. What process sends ones and zeroes across network cables?

1 / 1 point

- ☐ Bits
- ☐ Lines
- ☐ Coding
- ☒ Modulation



Correct

9. A Local Area Network (LAN) uses Category 6 cabling. An issue with a connection results in a network link degradation and only one device can communicate at a time. What is the connection operating at?

1 / 1 point

- ☐ Simplex
- ☒ Half Duplex
- ☐ Partial
- ☐ Full Duplex



Correct

10. What is used to determine when the communications channels are clear and when a device is free to transmit data?

1 / 1 point

- ☐ Internet Protocol (IP)
- ☒ Carrier Sense Multiple Access with Collision Detection (CSMA/CD)
- ☐ Transmission Control Protocol (TCP)
- ☐ Ethernet

☒ Correct