

Computer Networks and Networking Media

Computer Science · Practice Test · 20 Questions

1. Which type of wired connection involves pairs of wires twisted together and is used for telephone and network connections?

- A) Coaxial cable
- B) Twisted-pair cable
- C) Fiber-optic cable
- D) Ethernet cable

2. What is the primary characteristic of coaxial cable?

- A) It uses glass or fiber strands.
- B) It has a thick center wire.
- C) It transmits data as light pulses.
- D) It uses radio signals.

3. Which networking medium uses glass or fiber strands through which light can pass for high-speed communications?

- A) Twisted-pair cable
- B) Coaxial cable
- C) Fiber-optic cable
- D) Wireless connection

4. Wireless connections utilize what type of signals to transmit data?

- A) Light pulses
- B) Sound waves
- C) Radio signals
- D) Electrical signals

5. Which wireless technology is used for short-range connections, such as connecting a wireless keyboard or mouse to a computer?

- A) Wi-Fi
- B) WiMAX
- C) Bluetooth
- D) Infrared

6. What does Wi-Fi typically enable?

- A) Long-range internet access
- B) Short-range device connections
- C) Wireless LANs and public hotspot access
- D) Satellite communication

7. Which wireless technology can be used to provide internet access to wide geographic areas?

- A) Bluetooth
- B) WiMAX
- C) Wi-Fi
- D) Infrared

8. Radio frequencies are assigned by which commission and measured in hertz (Hz)?

- A) IEEE
- B) FCC
- C) ITU
- D) W3C

9. Microwaves are high-frequency radio signals that are sent and received using:

- A) Fiber-optic cables
- B) Twisted-pair cables
- C) Microwave stations or satellites
- D) Infrared transmitters

10. Why are microwave stations often built on tall structures?

- A) To reduce interference
- B) To accommodate satellite dishes
- C) Because signals are line of sight
- D) To increase data transfer speed

11. What type of orbit do traditional communication satellites typically use?

- A) Low Earth Orbit (LEO)
- B) Medium Earth Orbit (MEO)
- C) Geosynchronous orbit
- D) Polar orbit

12. Low Earth Orbit (LEO) satellites were developed to combat what issue with traditional satellites?

- A) Signal strength
- B) Delay
- C) Cost
- D) Bandwidth limitations

13. Infrared (IR) transmissions send data as:

- A) Radio waves
- B) Microwaves
- C) Infrared light
- D) Sound waves

14. A limitation of Infrared (IR) transmissions is that they require:

- A) A strong signal booster
- B) Line of sight
- C) A wide open area
- D) High-frequency waves

15. What is a protocol in the context of computer networks?

- A) A physical connection medium
- B) A set of rules for communication
- C) A type of network hardware
- D) A wireless transmission standard

16. What is the primary function of a communications protocol?

- A) To provide physical connectivity
- B) To determine how devices on a network communicate
- C) To assign IP addresses
- D) To create wireless signals

17. TCP/IP is the most widely used communications protocol, especially with:

- A) Bluetooth networks
- B) Local Area Networks (LANs)
- C) The Internet
- D) Satellite communications

18. Within TCP/IP, what is the role of IP?

- A) Ensuring reliable data delivery
- B) Providing addresses and routing information
- C) Translating data formats
- D) Managing wireless connections

19. A hub connects all devices on a network but sends data to:

- A) Only the intended recipient
- B) All connected devices
- C) The nearest connected device
- D) The network administrator

20. What is the main difference between a hub and a switch?

- A) A hub uses wireless signals, a switch uses wired.
- B) A switch only sends data to the intended device, a hub sends to all.
- C) A switch connects more devices than a hub.
- D) A hub is faster than a switch.