

1. Telecommunications is the transmission of voice and video as well as data and implies transmitting a longer distance than in a data communication network.

- ☐ a. true
- ☐ b. false

Q2. A metropolitan area network is:

- ☐ a. a high speed central network, built with privately owned media, which connects other networks in a distance spanning up to several miles.
- ☐ b. a group of microcomputers or terminals located in the same general area and connected by a common cable (communication circuit) so they can exchange information.
- ☐ c. a network that spans a geographical area that usually encompasses a city or county area (3 to 30 miles) and that typically uses common carrier circuits.
- ☐ d. a network spanning a large geographical area (up to 1000s of miles).
- ☐ e. a network spanning exactly 543.56 miles with private media.

Q3. Which of the following is a term used to group together the physical and data link layers?

- ☐ a. Internetwork layers
- ☐ b. Hardware layers
- ☐ c. Software layers
- ☐ d. Middleware layers
- ☐ e. Application layers

Q4. In 1996, the U.S. Congress replaced all current laws, FCC regulations, and the consent decree for AT&T. It:

- ☒ a. set up the Telecommunications Competition and Deregulation Act
- ☐ b. permitted MCI to provide limited long distance service in the U.S.
- ☐ c. permitted telephone and/or computer equipment that was not manufactured by Bell Telephone to be connected to AT&T's network
- ☐ d. divided AT&T into two parts: one part for long distance service, and a second part, comprised of seven operating companies, for local telephone service
- ☐ e. set up deregulation for international telecommunications markets in 68 countries

Q5. An intranet is a LAN that uses Internet technologies and is publicly available to people outside of the organization.

- ☐ a. true
- ☐ b. false

Q6. The _____ layer is responsible for routing of messages from the sender to the final destination.

- ☐ a. data communication layer
- ☐ b. resident layer
- ☐ c. application layer
- ☐ d. network layer
- ☐ e. physical layer

Q7. The integration of voice, video, and data communications is also known as _____.

- ☐ a. convergence
- ☐ b. peer-to-peer networks
- ☐ c. metropolitan wide networks
- ☐ d. regional bell operating company
- ☐ e. intranet

Q8. In the Internet model, the application layer corresponds to the _____, layer(s) s of the OSI model.

- ☐ a. data link and network
- ☐ b. session, presentation and application
- ☐ c. application layer
- ☐ d. application and presentation
- ☐ e. network, transport and presentation

Q9. One disadvantage of the _____ architecture is that it places a greater load on the network.

- ☐ a. two-tier

- ☐ b. three tier
- ☐ c. one-tier
- ☐ d. n-tier
- ☐ e. layered

Q10. A network computer is designed primarily to communicate using Internet based standards, but has no hard disk. It has only limited functionality.

- ☐ a. true
- ☐ b. false

Q11. As the demand for more and more network applications grow; host-based computing becomes the best solution.

- ☐ a. true
- ☐ b. false

Q12. The World Wide Web was conceived at University of Utah as part of the development of the Internet.

- ☐ a. true
- ☐ b. false

Q13. Using the POP standard for client to server e-mail communication, the e-mail messages remain on the server computer.

- ☐ a. true
- ☐ b. false

Q14. All three parts (request line, request header, request body) of an HTTP request from a web browser to a web server are required when a request is made.

- ☐ a. true
- ☐ b. false

Q15. The most commonly used e-mail standard is:

- ☐ a. Simple Mail Transfer Protocol
- ☐ b. X.400
- ☐ c. CMC
- ☐ d. Post Office Protocol
- ☐ e. Telnet

Q16. _____ refers to changing the shape of the sound wave in different ways to represent a 1 or a 0.

- ☐ a. digitizing.
- ☐ b. sampling
- ☐ c. modulation
- ☐ d. demodulation
- ☐ e. shaping

Q17. With respect to converting digital data into analog signals, AM stands for:

- ☐ a. Asynchronous Manchester
- ☐ b. Analog Multimode
- ☐ c. Amplitude Modulation
- ☐ d. Anomaly Multiplexing
- ☐ e. Analytical Mosaic

Q18. The ability to transmit in both directions, but only in one direction at a time is an example of _____ transmission.

- ☐ a. simplex
- ☐ b. full-duplex
- ☐ c. half-duplex
- ☐ d. analog
- ☐ e. digital

Q19. With which type of digital signaling does the signal always return to zero volts after each bit?

- ☐ a. Non-return-to-zero signaling
- ☐ b. Unipolar signaling
- ☐ c. Return-to-zero signaling
- ☐ d. Data rate signaling
- ☐ e. Huffman encoding signal

Q20. In full-duplex transmission, two stations can send and receive simultaneously.

- ☐ a. true
- ☐ b. false

Q21. In simplex transmission, the data flows in both directions at the same time.

- ☐ a. true
- ☐ b. false

Q22. With modem communications, the receiving modem converts the incoming digital signal from the telephone line into an analog signal that can be understood by the computer.

- ☐ a. true
- ☐ b. false

Q23. Cross-talk:

- ☐ a. occurs when one circuit picks up signals in another
- ☐ b. is always bothersome because it has a high signal strength
- ☐ c. decreases with increased proximity of two wires
- ☐ d. decreases during wet or damp weather
- ☐ e. increases with lower frequency signals

Q24. For effective error detection and correction, extra error detection "data" must be included with each message.

- ☐ a. true
- ☐ b. false

Q25. Cyclical redundancy check is one of the most popular polynomial error-checking schemes.

- ☐ a. true
- ☐ b. false

Q26. Only the sender of a data transmission needs to be concerned about the rules or protocols that govern how it communicates with the receiver.

- ☐ a. true
- ☐ b. false

Q27. Eliminating jitter to generate a pure carrier signal in an analog circuit is impossible.

- ☐ a. true
- ☐ b. false

Q28. The probability of detecting an error, given that one has occurred, using parity checking is about:

- ☐ a. 100%
- ☐ b. 0%
- ☐ c. 50%
- ☐ d. 75%
- ☐ e. 98%

Q29. _____ is an effective way to prevent impulse noise, cross talk, and intermodulation noise.

- ☐ a. Shielding wires
- ☐ b. Adding fluorescent lights
- ☐ c. Adding repeaters to a circuit
- ☐ d. Adding amplifiers to a circuit
- ☐ e. Shorting a circuit

Q30. A routing protocol used inside an autonomous system is called an exterior routing protocol.

- ☐ a. true

- ☐ b. false

Q31. When TCP/IP translates a network layer address into a data link layer address, it sends a special _____ to all computers in the subnet.

- ☐ a. physical layer packet
☐ b. multicast message
☐ c. X.25 message
☐ d. broadcast message
☐ e. application layer packet

Q32. TCP includes a sequence number so that the packets can be reassembled at the destination in the correct order.

- ☐ a. true
☐ b. false

Q33. Software with multiprotocol stacks refers to the fact that the software supports several different transport/network protocols.

- ☐ a. true
☐ b. false

Q34. Server name resolution is done using the:

- ☐ a. Address Resolution Protocol
☐ b. Border Gateway Protocol
☐ c. Internet Control Message Protocol
☐ d. Routing Information Protocol
☐ e. Domain Name Service

Q35. A subnet mask of _____ means that all computers with only the same first two bytes in their IPv4 addresses are on the same subnet..

- ☐ a. 11111111.0.0.0
☐ b. 255.255.255.0
☐ c. 255.0.0.0
☐ d. 255.255.0.0
☐ e. 255.255.255.255

Q36. A special type of message that is used when sending the same message to all computers on a specific LAN or subnet is called a:

- ☐ a. unicast message
☐ b. multicast message
☐ c. broadcast message
☐ d. guided message
☐ e. radiated message

Q37. Ethernet LAN was developed by:

- ☐ a. IBM
☐ b. ARPANET
☐ c. DEC, Xerox, and Intel
☐ d. University of Minnesota
☐ e. CERN laboratory in Geneva

Q38. _____ is the software that controls the network.

- ☐ a. Network Operating System
☐ b. Client Operating System
☐ c. Embedded Operating System
☐ d. Network Control System
☐ e. Network Software System

Q39. Many network hubs incorporate repeaters or amplifiers to regenerate signals so that attenuation of the signal does not occur.

- ☐ a. true

- ☐ b. false

Q40. As discussed in this textbook, three layers of a network model are the components required for a typical network, including local area networks.

- ☐ a. true
☐ b. false

Q41. Cut through switching has fewer errors than store and forward switching.

- ☐ a. true
☐ b. false

Q42. A(n) _____ allows many users to share the same set of files on a common, shared disk drive.

- ☐ a. print server
☐ b. database server
☐ c. file server
☐ d. piconet server
☐ e. remote access server

Q43. _____ refers to having users access the same data files, exchange information via electronic mail, or search the Internet for information.

- ☐ a. Resource sharing
☐ b. User grouping
☐ c. User profiling
☐ d. Information sharing
☐ e. Data pirating

Q44. Which is True about bandwidth?

- ☐ a. Bandwidth and transmission speed are not related.
☐ b. The larger the range of frequencies, the smaller the amount of bandwidth available.
☐ c. The greater the bandwidth, the faster we can transmit data.
☐ d. Bandwidth is usually measured in bytes/second
☐ e. The sum of the lowest and highest frequencies is the bandwidth.

Q45. War driving refers to a computer cracking technique that involves driving through a neighborhood with a wireless-enabled notebook computer and mapping houses and businesses that have wireless access points.

- ☐ a. true
☐ b. false

Q46. A Bluetooth network is called _____.

- ☐ a. WLAN
☐ b. Piconet
☐ c. LAN
☐ d. area
☐ e. WAN

Q47. Another name for distributed coordination function (DCF) is _____.

- ☐ a. distributed carrier sense method
☐ b. physical carrier sense method
☐ c. physical carrier sense mode
☐ d. distributed carrier sense mode
☐ e. distributed coordination mode

Q48. The effective data range is up to 6 miles with a line of sight to the access point or 2.5 miles without line of sight. This describes _____.

- ☐ a. IEEE 802.3
☐ b. IEEE 802.11a
☐ c. IEEE 802.15
☐ d. IEEE 802.16d
☐ e. IEEE 802.16e

Q49. It takes 802.11a more access points to provide the same coverage as one 802.11b access point.

- ☐ a. true
- ☐ b. false

Q50. A major difference between Wi-Fi Protected Access (WPA) and WEP or EAP is:

- ☐ a. WPA keys are longer than WEP keys.
- ☐ b. WPA keys are encrypted
- ☐ c. WPA keys cannot be broken by a brute force attack
- ☐ d. WPA keys easier to manage
- ☐ e. WEP keys are changed for every packet that is transmitted to the client