

CP1402 Midterm preparation questions SP2 2015

True/False

Indicate whether the statement is true or false.

1. To prepare to enter the networking field, a student should master a number of general networking technologies.
 - a. True
 - b. False
2. The command used to view IP information on a Windows workstation is `ipconfig`.
 - a. True
 - b. False
3. Standards assist in network design.
 - a. True
 - b. False
4. The most popular method for connecting nodes on a network is circuit switching.
 - a. True
 - b. False
5. Clients on a client/server network share their resources directly with each other.
 - a. True
 - b. False
6. Ethernet is an example of a baseband system found on many LANs.
 - a. True
 - b. False
7. Modern Ethernet networks are based on the star topology.
 - a. True
 - b. False
8. All protocols are routable.
 - a. True
 - b. False
9. Latency occurs when a signal traveling on one wire or cable infringes on the signal traveling over an adjacent wire or cable.
 - a. True
 - b. False
10. ICMP (Internet Control Message Protocol) reports on the success or failure of data delivery.
 - a. True
 - b. False
11. The maximum distance a signal can travel and still be interpreted accurately is equal to a segment's maximum length.
 - a. True

b. False

12. The Application layer includes software applications.
a. True
b. False
13. Not all Transport layer protocols are concerned with reliability.
a. True
b. False
14. The simplest form of a network is a client/server network.
a. True
b. False

Multiple Choice

Identify the choice that best completes the statement or answers the question.

15. Which OSI model layer manages data encryption?
a. Physical
b. Session
c. Application
d. Presentation
16. Which Data Link sublayer manages access to the physical medium?
a. LLC
b. MAC
c. Management layer
d. Addressing layer
17. In the TCP/IP protocol suite, _____ is the core protocol responsible for logical addressing.
a. TCP
b. UDP
c. IP
d. ARP
18. A straight through cable is used to connect _____
a. A PC to a laptop
b. A switch to another switch
c. A switch to a router
d. A PC to a switch
19. On an Ethernet network, a(n) _____ is the portion of a network in which collisions occur if two nodes transmit data at the same time.
a. collision domain
b. broadcast domain
c. interference domain
d. duplicate domain
20. A _____ network is confined to a relatively small space.
a. NAN
b. MAN

- c. WAN
 - d. LAN
21. The more twists per foot in a pair of wires, the more resistant the pair will be to ____.
- a. throughput
 - b. attenuation
 - c. cross talk
 - d. latency
22. When signals are free to travel in both directions over a medium simultaneously, the transmission is considered ____.
- a. simplex
 - b. multiplex
 - c. half-duplex
 - d. full-duplex
23. The phenomenon of offering multiple types of communications services on the same network is known as ____.
- a. convergence
 - b. unified communications
 - c. divergence
 - d. multi-communications
24. The ____ is a fixed number associated with a device's NIC.
- a. LLC address
 - b. frame address
 - c. logical address
 - d. physical address
25. Modern LANs use ____ or higher wiring.
- a. Cat 3
 - b. Cat 5
 - c. RG-6
 - d. RG-59
26. The serial interface on the back of the connectivity device is often labeled "____."
- a. Connector
 - b. Port
 - c. Board
 - d. Console
27. Which network topology is the most common?
- a. ring
 - b. star
 - c. hybrid
 - d. Ethernet
28. Which IEEE standard describes Ethernet?
- a. 802.1
 - b. 802.3
 - c. 802.5
 - d. 802.11

29. In which OSI model layer do hubs operate?
- Physical
 - Network
 - Data Link
 - Physical and Data Link
30. Which network model ensures that no computer on the network has more authority than another?
- client/server
 - stand alone
 - peer-to-peer
 - distributed
31. A physical topology ____.
- specifies device types
 - depicts a network in broad scope
 - specifies connectivity methods
 - specifies addressing schemes
32. Many network problems can be traced to poor cable ____ techniques.
- manufacturing
 - engineering
 - installation
 - planning
33. How is reliability achieved in TCP?
- Routing
 - Sliding windows
 - Sequence numbers and acknowledgements
 - Port numbers
34. The byte 00001110 means ____ on a digital network.
- 3
 - 6
 - 14
 - 30
35. The points where circuits interconnect with other circuits is known as ____.
- entrance facilities
 - cross-connect facilities
 - IDF (intermediate distribution frame)
 - telecommunications closet
36. A ____ facilitates communication and resource sharing between other computers on the network.
- servlet
 - workstation
 - personal computer
 - server
37. ____ are the distinct units of data that are exchanged between nodes on a network.
- Segments
 - Packets
 - Topologies
 - Protocols

38. The subprotocol that enables TCP/IP to internetwork - that is, to traverse more than one LAN segment and more than one type of network through a router is ____.
- TCP
 - ICMP
 - UDP
 - IP
39. Standards define the ____ performance of a product or service.
- ideal
 - most acceptable
 - minimum acceptable
 - maximum acceptable
40. One of the most common transmission flaws affecting data signals is ____.
- noise
 - attenuation
 - throughput
 - latency
41. A ____ is simply a linked series of devices.
- star
 - star-wired ring
 - ring
 - daisy-chain
42. Which type of protocol is useful when data must be transferred quickly?
- connection-oriented
 - connectionless
 - TCP
 - IP
43. In which OSI model layer does IP operate?
- Physical
 - Transport
 - Network
 - Data Link
44. ____ is more efficient than TCP for carrying messages that fit within one data packet.
- IP
 - UDP
 - ICMP
 - IGMP
45. The goal of ____ is to establish international technological standards to facilitate the global exchange of information and barrier free trade.
- ANSI
 - ISO
 - ITU
 - ISOC

46. In the domain name www.google.com, ____ is the top-level domain (TLD).
- http
 - www
 - google
 - com
47. The most common logical topologies are ____ and ring.
- bus
 - star
 - wired
 - hybrid
48. ____ is a utility that can verify that TCP/IP is installed, bound to the NIC, configured correctly, and communicating with the network.
- ARP
 - PING
 - Telnet
 - FTP
49. A complex combination of topologies is known as a ____ topology.
- mixed
 - hybrid
 - compound
 - multipart
50. Which OSI model layer initiates the flow of information?
- Physical
 - Session
 - Application
 - Presentation
51. 1000Base-T is a standard for achieving throughputs ____ times faster than Fast Ethernet over copper cable.
- 2
 - 5
 - 10
 - 100
52. Each network node has ____ types of addresses.
- two
 - three
 - four
 - five
53. The data transmission characteristic most frequently discussed and analyzed by networking professionals is ____.
- noise
 - scalability
 - throughput
 - cost

54. In which OSI model layer(s) do NICs operate?
- Physical
 - Network and Physical
 - Data Link
 - Physical and Data Link
55. Which Data Link sublayer manages flow control?
- LLC
 - MAC
 - Management layer
 - Addressing layer
56. Dependability is a characteristic of ____.
- soft skills
 - network communications
 - technical skills
 - network servers
57. Which term identifies a room containing connectivity for groups of workstations in its area?
- MDF (main distribution frame)
 - entrance facilities
 - work area
 - telecommunications closet
58. The 10GBase-T standard is considered a breakthrough for transmitting 10 Gbps over ____ medium.
- coaxial
 - twisted pair
 - fiber
 - atmosphere
59. In packet switching, when packets reach their destination node, the node ____ them based on their control information.
- disassembles
 - deletes
 - reassembles
 - separates
60. ____ is the process of reconstructing segmented data.
- Reassembly
 - Reengineering
 - Resegmenting
 - Realigning
61. A ____ occurs when two transmissions interfere with each other.
- jam
 - collision
 - carrier sense
 - multiple access event

62. Transport layer protocols break large data units into ____.
- PDU's
 - segments
 - frames
 - block IDs
63. Within Ethernet frame types, the ____ signals to the receiving node that data is incoming and indicates when the data flow is about to begin.
- FCS
 - header
 - preamble
 - frame
64. Which statement accurately describes the OSI model?
- It describes how software programs interact with humans.
 - It prescribes the type of hardware or software that should support each layer.
 - It describes how software programs interact with other software programs.
 - It describes a theoretical representation of what happens between two nodes communicating on a network.
65. A ____ network connects clients and servers from multiple buildings.
- NAN
 - MAN
 - WAN
 - TAN
66. 1000Base-SX has a maximum throughput of ____.
- 1 Gbps
 - 10 Gbps
 - 100 Gbps
 - 1000 Gbps
67. The process of determining the best path from Point A on one network to Point B on another is known as ____.
- mapping
 - enhancing
 - reconfiguring
 - routing
68. The most significant factor in choosing a transmission method is its ____.
- noise
 - attenuation
 - throughput
 - latency
69. A(n) ____ number is the address on a host where an application makes itself available to incoming or outgoing data.
- port
 - source
 - destination
 - application

70. ____ ARP table entries are created when a client makes an ARP request that cannot be satisfied by data already in the ARP table.
- Static
 - Dynamic
 - Temporary
 - On-demand
71. In a ring network, each workstation acts as a(n) ____ for the transmission.
- repeater
 - amplifier
 - terminator
 - manager
72. TCP is a(n) ____ subprotocol.
- open-ended
 - indiscriminating
 - connection-oriented
 - connectionless
73. All Ethernet networks, independent of their speed or frame type, use an access method called ____.
- CSMA
 - CSMA/DC
 - CSAM/CD
 - CSMA/CD
74. A UDP header contains ____ fields.
- four
 - six
 - eight
 - ten
75. In which OSI model layer does TCP operate?
- Physical
 - Transport
 - Network
 - Data Link
76. A cross over cable is used to connect ____
- A PC to a laptop
 - A switch to another switch
 - A switch to a router
 - All of the above
77. Which statement describes an advantage of networks?
- Networks require decentralized management.
 - Isolating network devices decreases costs.
 - Isolating network devices allows implementation of the sneakernet file sharing method.
 - Networks enable multiple users to share resources.

78. ____ networks are the most popular type of network for medium- and large-scale organizations.
- Client/server
 - Peer-to-peer
 - Stand-alone
 - Stationary
79. Often, separate LANs are interconnected and rely on several ____ running many different applications and managing resources other than data.
- workstations
 - servers
 - clients
 - stand-alone computers
80. ____ services refer to the capability of a server to share data files, applications, and disk storage space.
- File
 - Data
 - Management
 - Access
81. Which type of service supports e-mail?
- management
 - communications
 - access
 - file
82. Which IEEE standard describes specifications for wireless transmissions?
- 802.1
 - 802.3
 - 802.5
 - 802.11
83. When signals may travel in both directions over a medium but only in one direction at a time, the transmission is considered ____.
- simplex
 - multiplex
 - half-duplex
 - full-duplex
84. When signals may travel in only one direction over a medium, the transmission is considered ____.
- simplex
 - multiplex
 - half-duplex
 - full-duplex
85. The most common 1-Gigabit Ethernet standard in use today is ____.
- 1000Base-T
 - 1000Base-SX
 - 10GBase-SR
 - 1000Base-LX

86. Together, the FCS and the header make up the ____-byte “frame” for the data.
- a. 15
 - b. 18
 - c. 21
 - d. 24