

CIT 205 Advance Digital Network Test II

True/False

Indicate whether the sentence or statement is true or false.

- ___ 1. A switch reduces contention by subdividing the network into virtual circuits.
- ___ 2. Fiber-optic cable can transmit over long distances, farther than any other network media.
- ___ 3. In Token Ring, the token is a small CRC frame.
- ___ 4. Frame Relay relies on higher-layer protocols to provide error checking and flow control.
- ___ 5. When a device sends a packet on the local segment, all other devices on that segment must receive or discard the packet.

Modified True/False

Indicate whether the sentence or statement is true or false. If false, change the identified word or phrase to make the sentence or statement true.

- ___ 6. If the destination logical address is located on a segment other than the originating segment, the bridge forwards it. _____
- ___ 7. Switches increase network performance by increasing the number of packets transmitted to the rest of the network. _____
- ___ 8. In the physical star configuration, the logical ring is implemented in the hub. _____
- ___ 9. Committed burst size is the minimum amount of data bits that the service provider agrees to transfer in a set period under normal circumstances. _____
- ___ 10. ATM cells have a fixed length of 63 bytes. _____

Multiple Choice

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

- ___ 11. A _____ topology often has a hub at its center.
 - a. matrix
 - b. linear bus
 - c. hybrid
 - d. star
- ___ 12. Routers operate at the _____ layer of the OSI model.
 - a. Physical
 - b. Data Link
 - c. Network
 - d. Transport
- ___ 13. What are broadcast domains created with?
 - a. Switches
 - b. Bridges
 - c. Routers
 - d. Hubs
- ___ 14. Which of the following is/are benefits of Ethernet LAN segmentation with switches?
 - a. Decreased collisions
 - b. Increased bandwidth
 - c. Eliminated broadcasts
 - d. both a and b
 - e. both a and c
- ___ 15. Typically, which device is the “device of choice” for increasing performance on your network?
 - a. Hub
 - b. Bridge
 - c. Bridge

- b. Switch
d. Router
- ___ 16. Which of the following are types of fiber that are used by optical repeaters?
a. Multimode
b. Split mode
c. Dual mode
d. Tri mode
e. both a and b
- ___ 17. Which of the following methods can bridges use to determine which segment includes a specific MAC address?
a. Transparent bridging
b. Source-route bridging
c. Translation bridging
d. both a and b
e. a, b, and c
- ___ 18. The CSMA/CD access method uses a logical ___ topology.
a. bus
b. star
c. ring
d. matrix
- ___ 19. The Fiber Distributed Data Interface standard is the responsibility of _____.
a. ANSI
b. ITU
c. IEE
d. TIA
- ___ 20. The ___ is a centralized software component that manages the network.
a. agent
b. manager
c. administration system
d. controller
e. none of the above
- ___ 21. In the HDLC frame, the data field contains the information that is to be passed to the ___ layer.
a. Data Link
b. Transport
c. Network
d. Session
- ___ 22. ___ defines a serial connection that operates at speeds of up to 52 Mbps over distances of up to 15 meters.
a. SDLC
b. HDLC
c. HSSI
d. LAPD
- ___ 23. The ___ virtual circuit is defined manually by the network administrator and exists until it is manually removed.
a. dynamic
b. switched
c. permanent
d. static
- ___ 24. A ___ can be a modem or a terminal adapter; in all cases, it is a physical connection at the end of the WAN connection.
a. CSE
b. DTE
c. DSU
d. DCE
- ___ 25. A DCE can be a ___ or a _____.
a. computer, terminal
b. router, switch
c. modem, terminal adapter
d. telephone, modem
- ___ 26. ___ can segment the network at the Data Link layer.
a. Bridges
b. Routers
c. Switches
d. Hubs
- ___ 27. You can see up to ___ previously typed commands by typing "show history" from either the user EXEC or privileged EXEC mode.
a. 8
b. 9
c. 10
d. 11
- ___ 28. You can set the history buffer to zero so that it won't store commands, or you can set it to store up to ___ previous commands.
a. 32
b. 64
c. 128
d. 256

- ___ 29. ___ is a special type of RAM that is not cleared when the router is rebooted.
- | | |
|----------|----------|
| a. SRAM | c. NVRAM |
| b. SDRAM | d. DRAM |
- ___ 30. If you are in global configuration mode, which router prompt will you see?
- | | |
|--------------------|-----------------------|
| a. global# | c. router(config-if)# |
| b. router(config)# | d. router> |

Yes/No

Indicate whether you agree with the sentence or statement.

- ___ 31. Can some repeaters be used to connect two physically different types of cabling?
- ___ 32. Do routers use the logical Network layer hardware address to route packets to the appropriate network segment?
- ___ 33. Do fiber-optic cables carry light pulses rather than electrical signals?
- ___ 34. Is one of the possible solutions for reducing network utilization to reduce the number of protocols in use on a segment?
- ___ 35. Is the formula to calculate throughput File Size/Bandwidth ($T = Fs/Bw$)?

Completion

Complete each sentence or statement.

36. Unlike bridges, a switch opens a(n) _____ circuit between the source and the destination.
37. Instead of evaluating the physical address of a packet as do switches and bridges, routers use the _____ address.
38. The wire on a bus network has two distinct end points, which are capped by _____.
39. The backbone cabling that connects wiring closets to the POP is sometimes called _____ cabling.
40. The most common solution for reducing network utilization is to _____ the network with a connectivity device.
41. When referring to twisted pair cables, _____ is a measure of interference from other wire pairs.
42. The LMI uses _____ ARP to automatically determine the protocol address of remote devices.
43. ATM is similar to Frame Relay and X.25 in that it runs over a(n) _____ service.
44. One of the main benefits of using a router is that it _____ traffic.
45. Network administrators typically access a router directly by the _____ or by the AUX ports located on the back of the router.

Matching

Match the term to its appropriate definition.

- | | |
|--------------------|-------------|
| a. Bandwidth | f. Latency |
| b. Broadcast | g. Node |
| c. Broadcast storm | h. Repeater |
| d. Gateway | i. Segment |
| e. Hub | j. Switch |

- ___ 46. A combination of hardware and software that translates between protocols
- ___ 47. A delay on the network caused by various factors, including device addition
- ___ 48. An active or passive device that connects network segments

Match the following terms to the appropriate definitions.

- | | |
|------------------|-------------------|
| a. 802.3 | f. Catchment area |
| b. 802.5 | g. Crosstalk |
| c. Access method | h. Impedance |
| d. Backbone | i. Jam signal |
| e. Beaconing | j. Plenum |

- ___ 49. Measure of the total opposition to electron flow
- ___ 50. Rules that define which stations can send data and how collisions are managed
- ___ 51. Cabling used to connect wiring hubs in an extended star topology

Match the following acronyms to the appropriate definitions.

- | | |
|----------|---------|
| a. ADCCP | f. LAPD |
| b. BRI | g. LMI |
| c. CIR | h. PSTN |
| d. DTE | i. SVC |
| e. FCS | j. TA |

- ___ 52. An adapter that allows non-ISDN terminals to operate on ISDN lines
- ___ 53. A temporary virtual circuit created when a network device calls the WAN

Match the following terms to the appropriate definitions.

- | | |
|-------------------------|---------------------------------|
| a. Command executive | f. ROM monitor mode |
| b. Enable mode | g. Router configuration mode |
| c. Flash memory | h. System Configuration Dialog |
| d. NVRAM | i. Line configuration mode |
| e. Privileged EXEC mode | j. Interface configuration mode |

- ___ 54. A mode that allows you to configure the console and AUX lines
- ___ 55. An automated setup routine

Short Answer

56. Describe the operation of transparent bridges.
57. What are two advantages of the ring topology?
58. What are four advantages of UTP cable?
59. List and describe four common fields between the HDLC, Cisco HDLC, and PPP frame formats.
60. What three commands can be used to show the contents of RAM in a router?

