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## Chapter 4 – Network Media

### Review Questions

1. Which of the following is a common characteristic of a networking medium? (Choose all that apply.)
  - a. Bandwidth rating
  - b. Interference susceptibility
  - c. Broadband rating
  - d. Maximum segment length
2. Which of the following types of fiber-optic connectors provides high density and requires only one connector for two cables?
  - a. SC
  - b. ST
  - c. MT-RJ
  - d. RJ-45
3. Which of the following conditions requires cables not to exceed a recommended maximum length?
  - a. Diminution
  - b. Capacitance
  - c. Bandwidth
  - d. Attenuation
4. Which of the following is the process for representing bit signals on the medium?
  - a. Encryption
  - b. Encoding
  - c. Decryption
  - d. Decoding
5. What happens to signals as they travel the length of the medium?
  - a. They decode.
  - b. They amplify.
  - c. They attenuate.
  - d. They implode.
6. Which of the following is UTP susceptible to? (Choose all that apply.)
  - a. EMI
  - b. Crosstalk
  - c. Signal enhancement
  - d. LEDs
7. The space between a false ceiling and the true ceiling where heating and cooling air circulates is called the \_\_\_\_\_.
  - a. duct-equivalent airspace
  - b. conduit
  - c. return air
  - d. plenum

8. What type of connector is used most commonly with TP network wiring?
- a. RJ-11
  - b. RJ-45
  - c. BNC
  - d. MT-RJ
9. You have been hired to install a network at a large government agency that wants to reduce the likelihood of electronic eavesdropping on its network. What type of cable is most resistant to eavesdropping?
- a. UTP
  - b. STP
  - c. Coaxial
  - d. Fiber optic
10. Which of the following is a characteristic of unshielded twisted-pair cable? (Choose all that apply.)
- a. Consists of four wires
  - b. Commonly used in physical bus topologies
  - c. Has a distance limitation of 100 meters
  - d. Is susceptible to electrical interference
11. Which of the following is a characteristic of fiber-optic cabling? (Choose all that apply.)
- a. Can be used in electrically noisy environments
  - b. Requires only a single strand of fiber for network connections
  - c. Carries data over longer distances than UTP does
  - d. Has low bandwidth
12. You're preparing to install a conventional Ethernet network in your new office building, but your boss tells you to be ready to handle a switchover to 1 Gbps Ethernet next year. What types of cable could you install? (Choose all that apply.)
- a. Cat 5
  - b. Fiber optic
  - c. Cat 4
  - d. Cat 6
  - e. Coax
13. When two cables run side by side, signals traveling down one wire might interfere with signals traveling on the other wire. What is this phenomenon called?
- a. RFI
  - b. Attenuation
  - c. Impedance
  - d. Crosstalk
14. What characteristic of twisted-pair cabling helps mitigate the effects of crosstalk?
- a. Differential signals
  - b. Copper conductors
  - c. Four pairs of wires
  - d. 100-ohm impedance

15. Which of the following is a wiring standard for twisted-pair cable connections? (Choose all that apply.)
- a. IEEE 802.3a
  - b. TIA/EIA 568A
  - c. IEEE 802.3b
  - d. TIA/EIA 568B
16. Which of the following is a component of a structured cabling system? (Choose all that apply.)
- a. Patch cables
  - b. RJ-11 plugs
  - c. Coax cable
  - d. Horizontal wiring
17. Where are you most likely to find backbone cabling? (Choose all that apply.)
- a. MDF
  - b. In the work area
  - c. Between IDFs
  - d. Connecting a work area to an IDF
18. Which of the following is a tool needed to make a patch cable? (Choose all that apply.)
- a. 110 punchdown tool
  - b. Cable stripper
  - c. Crimping tool
  - d. RJ-45 jack
19. Which type of connection is most likely to require a crossover cable?
- a. PC to hub
  - b. Hub to router
  - c. Router to switch
  - d. PC to router
20. Which UTP limitations can be solved by fiber-optic cable? (Choose all that apply.)
- a. Bandwidth
  - b. EMI susceptibility
  - c. Installation cost
  - d. Segment length
21. How many strands of fiber-optic cable are needed for a network connection?
- a. 1
  - b. 2
  - c. 4
  - d. 8
22. Which statement is true about fiber-optic cables?
- a. MMF uses lasers and has a thicker core.
  - b. SMF uses lasers and has a thinner core.
  - c. MMF uses LEDs and has a thinner core.
  - d. SMF uses LEDs and has a thicker core.

23. When might you want to use a rollover cable?
- a. To connect a PC to another PC
  - b. To connect a router to a switch
  - c. To add a switch to a LAN
  - d. To configure a Cisco device
24. Which of the following wireless technologies does a 802.11 wireless network using the 2.4 GHz frequency range use?
- a. Infrared
  - b. Narrowband radio
  - c. Frequency hopping
  - d. Direct-sequence spread spectrum