

Network+ Guide to Networks, Seventh Edition

Chapter 4, Solutions

Review Questions

1. Which of the following cabling types is *not* recognized by the TIA/EIA for horizontal wiring?

- A. UTP
- B. STP
- C. Coaxial
- D. Fiber-optic

Answer: C. Coaxial

2. What kind of networking device on today's racks does nothing to the data transmitted on a line other than pass it along through the connection?

- A. Patch panel
- B. Punch-down block
- C. 110 block
- D. Hub

Answer: A. Patch panel

3. In which layer(s) of the OSI model do NICs operate?

- A. Layers 5, 6, and 7
- B. Layers 1 and 2
- C. Layer 4

D. Layers 2 and 3

Answer: B. Layers 1 and 2

4. What are the two primary standard widths for rack systems?

A. 3 feet and 6 feet

B. 18U and 42U

C. 19 inches and 23 inches

D. 1U and 4U

Answer: C. 19 inches and 23 inches

5. What device provides a central control portal for all devices on a rack?

A. Server rails

B. Rack ears

C. Rack-monitoring system

D. KVM switch

Answer: D. KVM switch

6. What device protects computer equipment from a momentary increase in voltage due to lightning strikes, solar flares, or electrical problems?

A. NAS

B. Surge protector

C. Generator

D. Power converter

Answer: B. Surge protector

7. Providing a backup power source is called _____.

- A. power conversion
- B. power redundancy
- C. power inversion
- D. line conditioning

Answer: B. power redundancy

8. What generator component converts DC power from the generator to AC power that the electrical infrastructure in a data center can use?

- A. Inverter
- B. Rectifier
- C. Transformer
- D. Voltage regulator

Answer: A. Inverter

9. Which type of Ethernet frames do today's networks use?

- A. Jumbo frame
- B. Ethernet II frame
- C. 802.3 frame
- D. CSMA/CD frame

Answer: B. Ethernet II frame

10. What is the very beginning of an Ethernet frame called?

- A. Header

- B. Data
- C. Preamble
- D. Trailer

Answer: C. Preamble

11. Why is it important to use a structured cabling standard when installing and managing cabling systems?

Answer: The standard suggests how networking media can best be installed to maximize performance and minimize upkeep.

12. What is the first point of interconnection between an organization's LAN or WAN and a service provider's facility, and what components are generally included at this location?

Answer: The MDF, which may contain the demarc and other connectivity devices, such as switches and routers, and media, such as fiber-optic cable.

13. Why is it important to use plenum-rated cabling in the area above the ceiling tile?

Answer: A plenum-rated cable is coated with a flame-resistant jacket that produces less smoke than regular cable coated with polyvinyl chloride (PVC). In the event of a fire, smoke produced by plenum cabling is less toxic than that produced by PVC cabling.

14. What are the three methods by which a NIC can interface with a computer's motherboard?

Answer: Integrated into the motherboard, installed in an expansion slot on the motherboard, or installed as a peripheral device

15. What does a loopback plug do?

Answer: A loopback plug is a connector that plugs into a port and crosses over the transmit line to the receive line so that outgoing signals can be redirected into the computer for testing.

16. What is the unit of measurement that defines the space available in a rack? How tall are standard racks?

Answer: Rack unit; the industry standard height is 42U (about 6 feet)

17. What are the two general categories of UPSs?

Answer: Standby and online

18. What are some elements that are typically included in network diagrams?

Answer: Answers may include physical layout, logical topology, perimeter, access method, protocols, and network devices and connections.

19. What is the GUI version of Nmap for Windows?

Answer: Zenmap

20. What is a wiring schematic?

Answer: A graphical representation of a network's wired infrastructure