Review questions

1 ___________ combine the characteristics of bridges and routers.
   
   Brouters

2 Repeaters operate at which OSI layer?
   
   A  Layer 1 – Physical
   B  Layer 2 – Data link.
   C  Layer 3 – Network
   D  Layer 4 – Transport

3 Repeaters are typically used on what type of network?
   
   A  Bus
   B  Star
   C  Ring
   D  Hybrid

4 What type of repeater is shown in the following graphic?

   A  Amplifying
   B  Basic
   C  Intelligent
   D  Multifunction

5 Bridges operate at which OSI layer?
   
   A  Layer 1 – Physical
   B  Layer 2 – Data link.
   C  Layer 3 – Network
   D  Layer 4 – Transport
6 Bridges filter based on which of the following?
   A Host name
   B Domain
   C Physical address
   D Signal quality

7 What type of bridge can package frames of one format into the format of another?
   A Encapsulating
   B Heterogeneous
   C Translating
   D Transparent

8 When a bridge has a LAN link directly attached on each side, it’s known as a ___________ bridge.
   local

9 Routers operate at which OSI layer?
   A Layer 1 – Physical
   B Layer 2 – Data link.
   C Layer 3 – Network
   D Layer 4 – Transport

10 Which internetworking device makes computers that are connected to separate segments appear and behave as if they’re on the same segment?
   A Bridge
   B Hub
   C Router
   D Switch

11 With VLAN trunking, a single network adapter can virtualize “n” number of network adapters. “n” has a theoretical limit of what?
   A 90
   B 1000
   C 4096
   D 5012

12 True or false? Routers were designed to prevent unnecessary broadcasts in bridged networks
   True
13 True or false? Routers have a lower throughput than bridges.

True. A router activity needs more processor time, more memory, and multiple network connections.

14 Which of the following are router protocols? (Choose all that apply.)

A ATM
B Frame relay
C IPX
D RIP
E OSPF
F TCP/IP
G X-25

15 Which TCP/IP-based management protocol implemented on routers provides for security?

A CMIP over TCP/IP (CMOT)
B Common Management Information Protocol (CMIP)
C Simple Network Management Protocol (SNMP)
D SNMPv3

16 The two most common Interior Gateway protocols are:

A NAT
B OSPF
C RIP
D SNMP

17 When wiring Ethernet in a star topology, the internetworking device you use to take the signal transmitted from one computer and propagate it to all the other computers on the network is which of the following?

A Bridge
B Hub
C Repeater
D Switch

18 True or false? Brouters operate at both the network layer for routable protocols and at the data link layer for non-routable protocols.

True
19. Which type of hubs repairs weak signals by actually retransmitting the data with proper transmission voltage and current?
   A. Active
   B. Intelligent
   C. Passive
   D. Switching

20. Which type of hub is yet to be defined, but might include management features and support the TCP/IP Simple Network Management Protocol (SNMP)?
   A. Active
   B. Intelligent
   C. Passive
   D. Switching

21. True or false? The internetworking device used to connect computers on a Token Ring network is called a Token Ring hub.
   False. Token Ring networks use Multistation Access Units (MSAUs).

22. Physically, Token Ring networks look like a star, but they operate like which topology?
   A. Bus
   B. Hybrid
   C. Ring

23. True or false? Firewalls are hardware devices.
   False. Firewalls can be implemented as hardware or software.

24. When a router also acts as a firewall, it’s called a _____________ router.
   screening

25. Multilayer switches combine Layer 2 data switching with Layer 3 routing using which of the following?
   A. Application-specific integrated circuit (ASIC)
   B. MPLS
   C. Round robin
   D. Specialized software

26. Which content switch load balancing method indirectly accounts for differences in server processor speeds?
   A. Least connections
   B. Round robin
   C. Weighting
27 You install a(n) _________ device on the perimeter of your network to monitor for and stop threats before they are passed on your network.

IPS

28 A(n) _________ device can terminate a network connection or user session.

IPS

29 True or false? A traffic shaper can limit the amount of bandwidth a certain type of traffic is allowed to use.

True

Independent practice activity

1 Use Internet Explorer and a search engine to determine three different manufacturers of internetworking devices.

Examples include: Sun Microsystems, Cisco Systems, and AdTran.

2 Pick one of the companies and examine their product line. What types of internetworking devices do they offer that you learned about in this unit?

For example, AdTran offers Ethernet switches – Layer 3, PoE, as well as Gigabit and Fast Ethernet Layer 2 switches; multiservice, modular, and fixed-port routers; hardware firewall; and network configuration management software.

3 Examine the technical documentation and support provided by the company. What types of things do they offer?

Examples include: downloads, white papers, FAQ documents, product documentation, design guides, configuration documents, and case studies.