Computer Networks Practice

Choose one answer per question. Circle A, B, C, or D.

1. A school connects the computers and printer in one room so students can print from any desk. What type of network is the simplest description of this setup?
   A. A local area network
   B. A wide area network
   C. A satellite navigation network
   D. A cellular carrier network

2. A museum connects an exhibit computer to its local switch using a cable. Which name fits that kind of local connection?
   A. Cellular data
   B. Wi-Fi
   C. Wired Ethernet
   D. Satellite navigation

3. Which device is ordinarily used to connect several wired computers to one another on the same local network?
   A. An external battery
   B. A network switch
   C. A graphics adapter
   D. A barcode reader

4. Which device gives nearby laptops a wireless connection to the library’s existing network?
   A. A projector screen
   B. An Ethernet-only wall jack
   C. A USB charging dock
   D. A wireless access point

5. Two links are advertised at 20 megabits per second and 80 megabits per second. What property is expressed by those capacity ratings?
   A. Round-trip delay
   B. Bandwidth
   C. Distance
   D. Packet loss

6. A library connects the local networks of branches in two different towns. What does the network linking those branches span?

A. A wide area
B. One wireless access point’s room
C. One shared printer’s internal bus
D. One keyboard’s connection

7. Which device normally forwards data from one network toward another on its way to a destination?

A. An optical disc drive
B. An audio mixer
C. A barcode scanner
D. A router

8. One message takes 24 milliseconds to arrive. Its immediate reply takes 31 milliseconds to return. What round-trip delay does the sender observe?

A. 31 milliseconds
B. 7 milliseconds
C. 55 milliseconds
D. 744 milliseconds

9. During a five-second trial, a device receives 90 megabits. What average rate of delivered data does the trial show?

A. 18 megabits per second
B. 95 megabits per second
C. 450 megabits per second
D. 0.06 megabits per second

10. The Computer History Museum traces Ethernet’s early shared-medium design to which wireless network in Hawaii?

A. Teletext
B. Minitel
C. CompuServe
D. ALOHAnet

11. A fictional library link has a 40 Mb/s capacity and a 12 ms round-trip delay. A second has 80 Mb/s and 48 ms. Which linked pair matches those measurements?

A. The second has both a lower round-trip delay and a higher capacity.
B. The first has both a lower round-trip delay and a higher capacity.
C. The first has a lower round-trip delay, and the second has a higher capacity.
D. The two links have the same round-trip delay and capacity.

12. A fictional link delivers data at a steady 24 megabits per second. At eight bits per byte, how long does a 12-megabyte file take at that rate?

A. 0.5 seconds
B. 4 seconds
C. 8 seconds
D. 96 seconds

13. A file crosses two links in sequence, rated 90 Mb/s and 30 Mb/s. Ignoring overhead, what is the largest steady long-file rate those two links can support end to end?

A. 120 Mb/s
B. 60 Mb/s
C. 90 Mb/s
D. 30 Mb/s

14. A fictional lab expects 240 distinct packets. The receiver records 234 of them, including 18 that arrived in a different order. What percentage failed to arrive?

A. 2.5%
B. 7.5%
C. 10%
D. 97.5%

15. What did the Computer History Museum’s record show the 1977 internetting demonstration connecting?

A. One radio network and two nationwide telephone exchanges
B. Three terminals linked only to one local office switch
C. A packet radio network, a satellite network, and ARPANET
D. Three copies of one computer connected to the same printer