

Tutorial 3

The following are multiple-choice questions. Please select the correct answer.

1. The base bit rate of standard Ethernet is:

- A. 1 kbps
- B. 1 Mbps
- C. 10 Mbps
- D. 100 Mbps

2. The base bit rate of Fast Ethernet is:

- A. 1 kbps
- B. 1 Mbps
- C. 10 Mbps
- D. 100 Mbps

3. The base bit rate of Gigabit Ethernet is:

- A. 10Mbps
- B. 100Mbps
- C. 1Gbps
- D. 10Gbps

4. A MAC address has how many bits:

- A. 8 bits
- B. 24 bits
- C. 32 bits
- D. 48 bits

5. Which MAC address used for a broadcast:

- A. 00-00-00-00-00-00
- B. FF-FF-FF-FF-FF-FF
- C. 12-34-56-78-9A-BC
- D. 11-11-11-11-11-11

6. Which type of switch can deal with differing rates:

- A. Symmetric switch
- B. Asymmetric switch
- C. Segment switch

7. What is required in an asymmetric switch:

- A. Buffer memory
- B. Different connectors
- C. Differing network protocols
- D. Differing network addresses

8. In a 10/100Mbps switch, where will the buffering mainly be required:

- A. When transmitting between the 10Mbps device to the 100Mbps device
- B. When transmitting between the 100Mbps device to the 10Mbps device
- C. Equally in both directions

9. In a 100Mbps/1Gbps switch, where will the buffering mainly be required:

- A. When transmitting between the 100Mbps device to the 1Gbps device
- B. When transmitting between the 1Gbps device to the 100Mbps device
- C. Equally in both directions

10. Which is the fastest type of switch:

- A. Cut-through
- B. Store-and-forward

11. Which is the most reliable type of switch:

- A. Cut-through
- B. Store-and-forward

12. Which type of switch is used to convert network protocols:

- A. Cut-through
- B. Store-and-forward

13. Which type of switch is used for speed matching:

- A. Cut-through
- B. Store-and-forward

14. On FDDI, how many connections does a device has if it connects to the main ring:

- A. 1
- B. 2
- C. 4
- D. 8
- E. 16

15. Which is a typical use of FDDI:

- A. Local area network
- B. Inter-campus connections
- C. Home networks
- D. Telephone networks

16. In ATM, What is the maximum value of the VCI label:

- A. 1
- B. 24
- C. 1,024
- D. 16,777,216

E. Infinity

17. In ATM, how many bits are used for the VCI label:

- A. 1
- B. 8
- C. 24
- D. 32

18. In ATM, how does a recipient know where the data is from:

- A. By examining the VCI value
- B. By examining the VCI value and the switch from which it was sent from
- C. By the switch that the cell came from
- D. By the VCI value of the sender
- E. By the type of data received

19. If a device communicates with a host on another subnet, what MAC address does it use:

- A. The broadcast address
- B. The MAC address of the gateway port
- C. Converts data into binary bit patterns
- D. Synchronization of data between nodes

20. Which is the most likely characteristic of real-time data:

- A. Constant data throughput
- B. Bursts of data throughput
- C. Different destinations for the data
- D. Varying data samples

21. Which of the following is an example of real-time data transmission:

- A. Computer data
- B. Hi-fi transmissions
- C. File transfer
- D. Teletex transmission

22. Which of the following characterizes ATM cells:

- A. They are large with small amount of data
- B. They are small with a small amount of data
- C. They vary in size
- D. They are similar to Ethernet frames

23. Which of the following types of data is the most error sensitive:

- A. Real-time control data
 - B. Speech data from telephones
 - C. Hi-fi data
 - D. Teletex data
-

- 24. Which of the following types of data is the most sensitive to delays:**
-
- A. File transfer
 - B. Speech data from telephones
 - C. Computer data
 - D. Teletex data
- 25. The main advantage that ATM has over traditional LAN technologies is:**
-
- A. It is cheaper to implement
 - B. It properly supports real-time and non-real-time traffic
 - C. It is easier to interface to
 - D. It properly supports TCP/IP
- 26. A speech channel uses 8-bits for each sample and a sampling rate of 8kHz. What is the required bit rate:**
-
- A. 1kbps
 - B. 8kbps
 - C. 64kbps
 - D. 128kbps
- 27. How is data routed through an ATM network:**
-
- A. A path is initially reserved for the complete path
 - B. Data takes different routes through the network
 - C. The path is chosen for each data packet
 - D. The path is randomly assigned
- 28. In diagram the Figure 16 in Unit 4, which of the following is true:**
-
- A. ATM switch 5 routes cells with a VCI label of 15 to ATM switch 6 and changes the VCI label to 10
 - B. ATM switch 5 routes cells with a VCI label of 10 to ATM switch 6 and changes the VCI label to 15
 - C. ATM switch 6 routes cells with a VCI label of 15 to ATM switch 5 and changes the VCI label to 10
 - D. ATM switch 4 routes cells with a VCI label of 10 to ATM switch 5 and changes the VCI label to 15
- 29. In diagram the Figure 16 in Unit 4, which of the following is true:**
-
- A. ATM switch 2 routes cells with a VCI label of 12 to ATM switch 3 and changes the VCI label to 6
 - B. ATM switch 2 routes cells with a VCI label of 12 to ATM switch 3 and keeps the same VCI label
 - C. ATM switch 2 routes cells with a VCI label of 12 to ATM switch 5 and changes the VCI label to 6
 - D. ATM switch 2 routes cells with a VCI label of 12 to ATM switch 5 and keeps the same VCI label

30. In diagram the Figure 16 in Unit 4, if User1 is sending to User 2, what will the initial VCI number from Switch 1 be:

- A. Any
- B. 12
- C. 10
- D. 22
- E. 15

31. Can different switches use the same VCI number at any given time:

- A. Yes
- B. No

32. In ATM, how many data cells would be sent if user1 is sending 1kB of data to user2:

- A. 1
- B. 10
- C. 18
- D. 20
- E. 100

33. In ATM, which is the nearest value to the many data cells would be sent if user1 is sending 64kB of data to user2:

- A. 100
- B. 1000
- C. 1200
- D. 1500
- E. 10,000

34. In ATM, is it possible for cells to arrive in an out-of-order sequence:

- A. No
- B. Yes
- C. Depends on the data type

35. What is the basic bit rate of ATM:

- A. 10Mbps
- B. 100Mbps
- C. 155Mbps
- D. 622Mbps

36. What is the basic bit rate of FDDI:

- A. 10Mbps
- B. 100Mbps
- C. 155Mbps
- D. 622Mbps