ETHERNET TUTORIAL

Welcome to the ethernet tutorial multiple choice quiz. There are twenty questions that are designed to test your general knowledge of the topics covered in the tutorial. Try to achieve 80% or greater. The quiz is designed to allow you to answer a question wrong as many times as you want, but as soon as you answer it correctly, you cannot answer it again. The script will calculate an overall percentage score when you have answered all of the questions.

Multiple Choice Questions

1. What is the application layer of the OSI reference model responsible for?
   a) It provides network communication services such as translation and encryption.
   b) It provides logical link and access control.
   c) It provides services for the program that the user is operating.

2. At which layer of the OSI reference model will you find the protocols necessary to assemble packets of data into a coherent message?
   a) At the session layer.
   b) At the datalink layer.
   c) At the transport layer.

3. In the TCP/IP protocol suite, where is CSMA/CD to be found?
   a) At the internet layer.
   b) At the transport layer.
   c) At the datalink sublayer of the network access layer.

4. The file transfer protocol (FTP) requires a reliable transport service. Which protocol of the TCP/IP suite does it use?
   a) Transmission control protocol (TCP).
   b) User datagram protocol (UDP).
   c) Telnet.

5. Which standardisation organisation is responsible for the 802.3 standard?
   a) The International Standards Organisation (ISO).
   b) The International Telecommunications Union (ITU).
   c) The Institute of Electrical and Electronics Engineers (IEEE).

6. 10BaseT ethernet is specified by which standard?
   a) IEEE 802.3i.
   b) IEEE 802.5.
   c) IEEE 802.3a.

7. What is the most dominant LAN technology?

   a) Token ring.

   b) Asynchronous Transfer Mode.

   c) Ethernet.

8. Which ethernet architecture uses hubs?

   a) 10BaseT.

   b) 10Base2.

   c) 10Base5.

9. As an access methodology, what network environment is CSMA/CD most suited for?

   a) Heavily loaded networks, often running high bandwidth multimedia applications.

   b) Moderately loaded networks where bandwidth is ample for requirements.

   c) Token ring networks.

10. In an 802.3 frame, what is the purpose of the preamble?

   a) It provides the cyclic redundancy check.

   b) It alerts and synchronises the destination network interface card.

   c) It indicates the length of the data field.

11. What term denotes gigabit ethernet over unshielded twisted pair.

   a) 1000BaseSX.

   b) 1000BaseCX

   c) 1000BaseT

12. What media supports 10Base5?

   a) Cat5 unshielded twisted pair.

   b) RG58 thin coaxial cable.

   c) RG8 thick coaxial cable.

13. What addressing information is shipped with every network interface card?

   a) The internet protocol (IP) address.

   b) The physical (MAC) address.

   c) The address resolution protocol (ARP) address.

14. What phrase best defines a hub?

a) A hub is a multiport repeater.

b) A hub is a device that routes at the internet layer of the TCP/IP suite.

c) A hub is a device that routes at the datalink sublayer of the network access layer of the TCP/IP suite.

15. What is distributed routing?

a) Layer 2 switching and layer three routing combined in a multilayer switch.

b) The use of two devices - a switch and a router.

c) The use of a routing server over a distributed system.

16. What method do some switches employ to cause transmitting computers to time-out?

a) They stop responding to incoming traffic.

b) They generate "backpressure".

c) They store and forward existing messages.

17. Why can the original SNMP cause greater network overheads?

a) Because it uses the user data protocol (UDP).

b) Because it allows remote configuration.

c) Because it cannot automatically provide information to a management information base.

18. Which statement about fibre distributed data interface (FDDI) is correct?

a) It is ratified by the IEEE.

b) It is faster than gigabit ethernet.

c) The two counter-rotating rings offer an element of redundancy.

19. What sentence best defines asynchronous transfer mode?

a) ATM is a fast, scaleable architecure.

b) Gigabit ethernet will destroy ATM.

c) ATM is not effective with high bandwidth multimedia.

20. Which access methodology does token ring employ?

a) Modified token passing.

b) Token passing.

c) CSMA/CD.