

Use the following websites to answer the questions below:

<http://computer.howstuffworks.com/ethernet.htm>

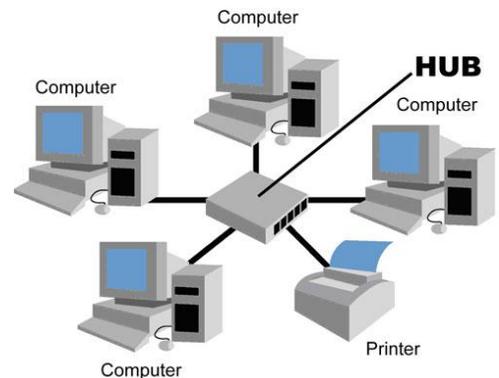
<http://www.functionx.com/networking/index.htm>

<http://computer.howstuffworks.com/home-network.htm>

<http://www.google.com> - simply type a "What is" question to find web definitions. For example, type "What is 802.11g?" at the Google prompt.

Assignment:

You will use the questions below to create study notes and a guide for networking. This technical writing exercise will provide you with terminology, illustrations and definitions of networking concepts. DO NOT just cut and paste your responses to the questions below. Finally, use at least one diagram or image from the web to illustrate each answer. Try to limit the size of your document to MAX four pages.



1. What are the three most popular network topologies (physical layout of network)?
2. We have a Client-Server network environment in Rm. 232. What is DHCP and why is it important when working in a network environment?
 - a) Define the following Disk Operating System (DOS) network commands: ping, ipconfig.
 - b) How can the above DOS network commands verify your connection to a server or network.
 - c) Explain how you configured your computer (client) to be connected to the server. [Hint : domain]
3. Identify 10 hardware items that are required to set up a wired or wireless home network (ex. RJ45 jack, Ethernet, router, NIC).
4. What is a NIC or network adaptor? What is the difference between wired and wireless adaptors (hint: 802.11g)?
5. What are network protocols ? [Hint: TCP/IP] Why are they needed? What network protocol did you install to be a member of a Microsoft network (ex. Windows 2000 or 2003 server)?
6. What is an IP address? Explain what the periods represent? How are website addresses and IP addresses related?

7. What is a “packet”? What is a MAC and how does it figure into the design of a packet? [Hint: anatomy of a packet]
8. What is a Category 5 Twisted Pair RJ45 network cable? Find a detailed illustration (a picture) to support your answer.
9. What are three advantages of networks?
10. Wireless networks can be a problem if they are not secure. Most people use “encryption” protocols to secure their home networks. What is the difference between WEP and WPA encryption protocols? Which is the most secure in your opinion?
11. Why do network administrators need to enable DNS and DHCP services on the server?
12. Why do network administrators need to create “reservations” on a server for a WAP (wireless access point) and a network printer?
13. Why is a switch better than a hub when connecting computers to a server using a star topology?