

Assignment Network Review

For this Assignment, you will complete several “Professor Messer” Networking Tutorials from:

<http://www.professormesser.com/>

Tutorial	Description
Protocols and Addresses	TCP/IP protocols and related addressing standards.
Common Ports	Ports represent application, or process, specific software constructs that serve as communication end points.
Network Technologies	Networks utilize many different technologies to ensure proper traffic flow.
IPv4 and IPv6	While IPv4 is the most widely used protocol, it is being superseded by IPv6.
Network Cabling and Connectors	Traditional networks employed physical connectors and physical media along with related standards.

Table 1 *Professor Messer Tutorials*

Question Sets Instructions

These questions, organized by tutorial, are meant to serve as a guide for your studies. Please complete each of the question sets, name the files appropriately, and post them to your online portfolio. Link to them by name i.e. “Networking Review.”

It is suggested that you view each of the tutorials. However, if you would like to challenge the tutorials and just complete the questions, that is also an acceptable option.

Please complete and post the assignment by exam date.

Question Set 1: 4.1 – Protocols and Addresses

<http://www.professormesser.com/free-a-plus-training/220-701/protocols-and-addresses/>

1. In a networking context, what is a protocol?
2. At what OSI/ISO layer does IP operate?

From Protocols and Addresses part 2 of 3...

1. What three pieces of information do you need to configure TCP/IP?
2. Approximately, when was classfull addressing last used?
3. What are the three major classes of addresses?

Protocols and Addresses part 3 of 3...

1. What is DHCP? What does it do?
2. Which proprietary Microsoft protocol was used in early versions of Microsoft Windows?
3. Which protocol is used to resolve a fully qualified domain name to an IP address?

Question Set 2: 4.1 – Common Ports

<http://www.professormesser.com/free-a-plus-training/220-701/common-ports/>

1. In a TCP/IP context, what is a port?
2. What is a non-ephemeral port?
3. What is meant by the term "well known" port?

Common Ports Part Two

<http://www.professormesser.com/free-a-plus-training/220-701/common-ports/>

1. What port does the DNS service utilize?
2. What port does the HTTPS protocol utilize?
3. What is the protocol SMTP and what port does it use?

Question Set 3: 4.1 – Network Technologies

<http://www.professormesser.com/free-a-plus-training/220-701/network-technologies/>

1. How does Professor Messer define a network?
2. What is a network Topology?
3. Who makes Network Topology Standards?
4. What is the most popular form of consumer networking?
5. What differentiates a LAN from a WAN?

Question Set 4: 4.1 – IPv4 and IPv6

<http://www.professormesser.com/free-a-plus-training/a-plus-videos/ipv4-and-ipv6-2/>

1. Compare and contrast the lengths of IPV4 and IPV6.
2. Is this a valid IPv4 address: "192.1.325.12"?
3. Is this a valid IPv6 address: "a::b::c"?

Question Set 5: 4.2 – Network Cabling and Connectors

<http://www.professormesser.com/free-a-plus-training/220-701/network-cabling-and-connectors/>

1. What is the alliance of trade associations that makes network cabling standards?
2. What is the Commercial Building Telecommunications Cabling Standard that we use for cabling?
3. What is the most common physical type of cabling?
4. What category of copper cable support 100 Mbits Ethernet?
5. What category of copper cable supports 10 Gbits Ethernet through 55 meters?

Part 2

1. What is plenum rated cable?
2. What type of cable did Ethernet originally use? Hint, same type of cable as used in cable TV.
3. What is the type of cable that is most suited for sending signals a long distance?
4. If you were connecting machines within a data center, what type of fiber would you be most likely to use?
5. If you were connecting two remote buildings, what type of fiber would you be most likely to use?
6. What type of jack would you use for Ethernet?
7. What type of jack would a phone use?