**ITM-301 Homework #9 (Chapter 15 & 16)**

* **Due Date: November 17, 2014 @ 11:59PM**

Reviewing the Basics

1. **How many bits are in a MAC address?**

Answer: In MAC (media access control) address, there are 48 bits.

1. **How does a client application identify a server application on another computer on the network?**

Answer: By a port number.

1. **What are IP addresses called that begin with 10, 172.16, or 192.168?**

Answer: Private IP addresses.

1. **In what class is the IP address 185.75.255.10?**

Answer: In class B.

1. **Which protocol does a web server use when transmissions are encrypted for security?**

Answer: HTTPS (HTTP secure) uses HTTP protocol working with SSL (Secure Sockets Layer) or TLS (Transport Layer Security) to create a secured socket.

1. **What type of network topology is used when five switches are used on a small LAN and each switch connects to multiple computers on the LAN?**

Answer: A star bus network or a hybrid network.

1. **What is the name of the port used by an Ethernet cable? What is the name of the port used by a dial-up modem?**

Answer: an Ethernet cable uses RJ-45 port. A dial-up modem uses RJ-11 port.

1. **If you want to upgrade your 100BaseT Ethernet network so that it will run about 10 times the current speed, what technology would you use?**

Answer: 1000-Mbps Ethernet (Gigabit Ethernet).

1. **What is the maximum length of a cable on a 100BaseT network?**

Answer: 100 meters or 328 feet

1. **What technology is used when power is transmitted on a network cable?**

Answer: Power over Ethernet (PoE).