***Please answer the following five question with a full 1-page response, an example of how I want these questions answered is provided below!***

1. What is 802.11, what are the essential aspects that you use daily from it.
2. Explain TCP/IP layering and why we use the concept for security?
3. Describe the two major forms of network switching, and what are their advantages?
4. Discuss 4G wireless communications, the proposed 5G standard, and who creates these standards?
5. Explain Malware? Is it the same as viruses or other threats? And how do you defend yourself from attacks on your network?

**\*\*\*\*ALSO PLEASE MAKE SURE YOU DON’T CITE ANY ONLINE RESOURCES OR QUOTE ANYONE IN ANY OF THESE RESPONSES!\*\*\*\*\* THIS IS VERY IMPORTANT!**

**Here is the hard part about the above: Limit your answers to no more than one full page each!**

**The earlier you post the happier I will be; however I am looking for quality over quantity but make sure each question is answered with a full one page response. Your answers per question should not be over a page.**

**An example would be:**

Question: What is and how does Cloud computing work?

1. **Statement:** Cloud computing is a current buzz word phrase that describes how the current technology of mainframe to terminal hardware architecture has evolved with the advent of smart phones and more useful (processor and memory enabled) technology. The current state of technology has allows us to augment our mobile life style environment with almost instant access to huge databases of materials we may find fun or necessary to our business and personal lives. It does this using the internet and the associated backbone via ISP and NSP infrastructure. The connectivity we have is the backbone of our society today.
2. **Proof or value added to the above statement is:** (Minimum of three (3))
3. Mainframe technology has gained significant capability to engage millions of users simultaneously and integrate their multiple databases into a searchable field of evidence for decision making. ( Please note the attached figures)
4. The infrastructure of the communication’s world has granted us the ability to connect in many places within our cultural environment at a price point we can afford as well as the security level we are willing to allow. This connectivity is the one of the three keys to our level of success today. ( Please note the attached figures)
5. The massive databases we can access almost at will brings us more than just data, but information and relationships of how the interaction of the information. It is a decision process enabler that we use. However, it is our experiences that allow us a use of the information so we can make the best possible decision in a given time frame that makes this system valuable.

(Please note the attached figures)

Examples of the above technology infrastructure are: IBM, HP, CISCO, DELL and other massive mainframe sites located in Data Centers around the country and world allow the processing of millions of data request every second, Connectivity is granted by every communications vendors at high speed and bandwidth, such as AT&T, Verizon, Cable and Wireless etc… This is done/underwritten with government funded research and endowments via organizations like DARPA and DOE, and the FCC.

1. **Conclusion:** This is a highly reliable (up-time) set of systems that is robust enough for today’s demands and flexible enough for us to evolve it as our uses expand and change over time. The Cloud is not new except as a term to characterize what we use and how we use technology and information today. The figures attached demonstrate the complexity as well as the simplicity of it. The entire Cloud based technology is a challenge to keep running and the security aspects of keeping each person’s or organization’s data clean and secure is difficult.