Unit 1: Chapter 2 - Study Guide

By the end of this chapter you should be able to:

- Connect a personal experience to one challenge related to the idea that "The Internet is for Everyone". (E)
- Cite examples of how computing has a global affect -- both beneficial and harmful -- on people and society. (E)
- Explain that the Internet is a distributed global system that works on shared and open protocols. (M, E)
- Explain why messages need to contain addressing information (sender/recipient identification). (M, E)
- Recall that browsing the Internet entails computers sending each other requests and sending back data to satisfy those requests. (M, E)
- Describe the redundancy of routing between two points on the Internet. (M)
- Evaluate the benefits and security concerns associated with the use of a routed system of sending packets. (M, E)
- Send messages using a numeric addressing protocol with the Internet Simulator. (N)
- Explain why protocols are necessary to overcome the underlying unreliability of the Internet. (M, E)
- Justify the need for acknowledgements and packet numbering in TCP. (M)
- Develop a protocol for reliable communication on the Internet. (N)
- Give a high level description of DNS as the name-to-IP-address mapping system used on the Internet. (M)
- Give a few reasons why DNS is useful and necessary. (M)
- Describe at least one vulnerability of DNS and how an attack on it works (M)
- Explain how layers of protocols allow the Internet to function. (M, E)
- Use developer tools in a modern browser to explore the HTTP traffic associated with visiting common websites. (N)
- Identify abstractions used in the development of Internet protocols. (M)
- Describe how a protocol or layer of the internet acts as an "abstraction" for other layers. (M, E, C)
- Research a global impact of the Internet. (E)
- Analyze the relationship of an Internet technology to the impact. (E)

Assessment by: C - Create task; E - Explore task; M - AP exam; N - not assessed.