

CS456/556 – Internet Services Final Exam due December 9, 1999 by 5:00 p.m. MDT

This is an open book final exam. You may use anything from a book, from your notes, or from the Internet. You may **NOT** talk to, chat with, or e-mail anyone about this exam. **Any violation of this will result in a 0 for this exam and possibly an F for the course.**

- I. Discussion – Internet Services. [e-mail all of your answers to wsummers@cs.nmhu.edu by 5:00 p.m. on Thursday, December 9, 1999]
1. The Internet relies on the TCP/IP Suite of Protocols to support the many functions and services. (10 pts)
 - a. IIS uses four of these protocols to support web, file transfer, e-mail and discussion group services. Describe these protocols in detail.
 - b. Explain the benefits of TCP/IP over other possible protocols.
 2. Explain the different components of the URL: <http://jaring.nmhu.edu/Notes/CS556/>. (5 pts)
 3. What is the reason for several classes of IP addresses to exist? Explain. (5 pts)
 4. How does HTTP communication work? Explain in detail. (5 pts)
 5. What software and hardware requirements for loading IIS 4.0 must be met on the host computer? Be specific. (5 pts)
 6. What are the objectives of File Transfer Protocol? (5 pts)
 7. What is the importance of auditing activities on the server? (5 pts)
 8. Your boss has assigned you the task of selecting a Web server to be deployed throughout your enterprise network to support *internal* private Web sites. [15 pts]
 - a. Describe two Web servers that you might recommend. Be sure to discuss some of the management and administration tools and capabilities of each.
 - b. Recommend one of the two and describe the benefits of using the **one** you selected.
 9. “Online shoppers will spend nearly \$10 billion this holiday season. They’ll surrender some of their privacy along with the cash.” [Newsweek, Nov. 22, 1999, pg. 101] (15 pts)
 - a) What recommendations do you have for online shoppers to preserve their privacy?
 - b) As a web site manager, what safeguards must you institute to ensure the privacy of your customers?
 10. Answer the following questions from the IIS book (briefly explain your answers): (5 pts each)
 - a. Chapter 2 - CASE PROJECT #1 (pg. 101)
 - b. Chapter 2 - CASE PROJECT #3 (pg. 102)
 - c. Chapter 2 - CASE PROJECT #8 (pg. 104)
 - d. Chapter 4 - CASE PROJECT #2 (pg. 141)
 - e. Chapter 4 - CASE PROJECT #4 (pg. 142)
 - f. Chapter 6 - CASE PROJECT #5 (pg. 225)

II. Hands-on Exercises. (100 pts)

11. Telnet to rex.nmhu.edu using your account. Answer the following questions about telnet and the Apache web server on rex (20 pts)
- a) Where is the default home page for rex located?
 - b) What are the choices for the default home page on rex?
 - c) Where would you create virtual WWW directories?
 - d) Explain the first error message in the error_log file.
 - e) What is the port number used for the Apache web server?
12. Ftp to jaring.nmhu.edu and download the file *mountain.gif* from the folder CS556. E-mail this file as an attachment to wsummers@cs.nmhu.edu (10 pts)
13. Send an e-mail message to wsummers@cs.nmhu.edu from your account on rex using the pine e-mail system on rex. Type *pine* to start the e-mail program. (5 pts)
14. a) Find the IP address of www.cnn.com (5 pts)
b) Find the host name for 128.1.2.3 (5 pts)
15. Create a web page that contains the following: (50 pts)

[Your web page must be a properly formed web page with head and body, etc.; points will be deducted for “messy” HTML code]

- a. A picture of a cowboy and a heading for this page. Use a style to make the heading: blue, bold, 20 pt. and centered.
- b. A list of links to the following federal government agencies: The White House, the Department of Education, NASA, National Science Foundation, the IRS. Use square bullets for your list. [Be sure to have a heading for this list where the heading is green, italic, 16 pt. and right-aligned].
- c. Complete the following table (use any link for the country):

Country Name and Link	Leader of Country	Currency used in the country
Malaysia		
Guatemala		
Thailand		
Poland		
Denmark		

- d. Use styles so that your page has 1” margins on the left and right, with a default font of 12 pt. Arial, and a background color of navy blue with text color of FFFF66.