Week 3 Summary Exercises

Due Jul 16 at 11:59pm   **Points** 108   **Questions** 30   **Available** Jul 9 at 12am - Jul 16 at 11:59pm 8 days
Time Limit 360 Minutes   **Allowed Attempts** 2

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	34 minutes	102 out of 108

Score for this attempt: **102** out of 108
Submitted Jul 15 at 1:12am
This attempt took 34 minutes.

Question 1   2 / 2 pts

Convert the following units. Your answer should be a whole number with no text in the answer field:

17 B = _____ bits

Correct!

> 136.0000

Correct Answer   136.0

Question 2   0 / 4 pts

For the following question, proper hexadecimal format is (0xYYYY) where Y will range in (0-9) or (A-F). Only proper formats will be accepted.

Suppose that we send a DNS request with ID #52651.

1. What is the little-endian representation (hexadecimal)?   ABCD

2. What is the big-endian representation (hexadecimal)?   CDAB

3. Which representation is required for network communication? (Enter "1" or "2" without quotes)

   CDAB

Answer 1:

You Answered

> ABCD

Correct Answer   0xABCD

Answer 2:

You Answered

> CDAB

Correct Answer   0xCDAB

Answer 3:

You Answered

> CDAB

Correct Answer   2

Question 3   2 / 2 pts

In a hybrid client-server/P2P architecture, one host is always on, and other hosts may connect and be handed off amongst themselves by this first host.

Answer 1:

Correct!   hybrid client-server/P2P

Question 4   2 / 2 pts

What transport-layer services are provided by the base UDP protocol? (Check all that apply)

Correct!   ☑ None of these services are provided by UDP

                  ☐ Connection-oriented service

                  ☐ Minimum bandwidth

                  ☐ Flow control

                  ☐ Congestion control

                  ☐ Jitter minimization

☐ Message security

Question 5   2 / 2 pts

The minimum necessary information for identifying a process on a remote host would be (check all that apply):

☐ Gateway Router IP

Correct!

☑ Remote Port Number

☐ Local Socket Info

☐ Local Port Number

☐ Local Host IP

Correct!

☑ Remote Host IP

Question 6   2 / 2 pts

In the internet, an application-level protocol implemeting live-streaming video would most likely utilize UDP as its transport-layer protocol.

Answer 1:

Correct!

UDP

Question 7   2 / 2 pts

In the internet, an application-level protocol implemeting web browsing would most likely utilize TCP as its transport-layer protocol.
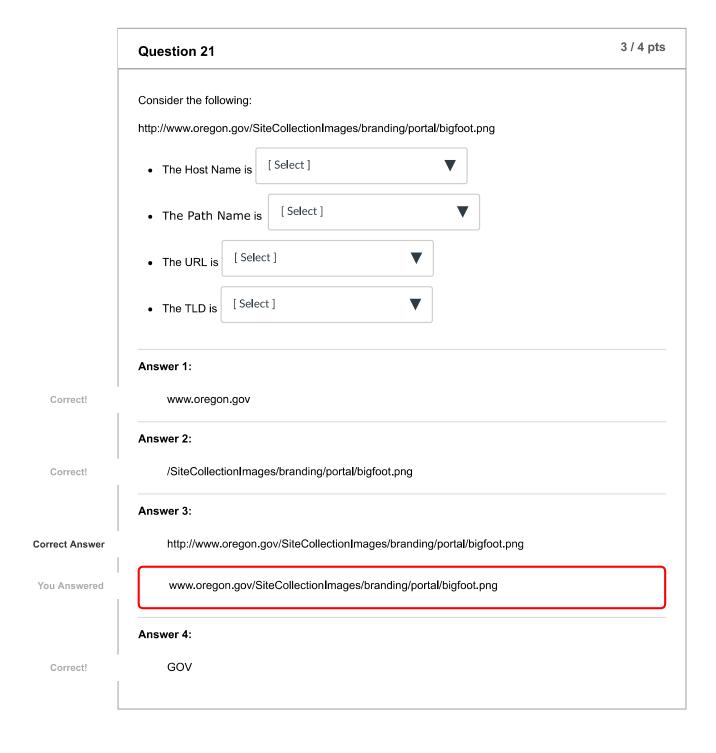
Answer 1:

Correct!

TCP

Question 8	4 / 4 pts

An HTTP server maintains client states.

○ True

Correct!

◉ False

Question 9	4 / 4 pts

The reserved port for FTP control is port 21 .

Answer 1:

Correct!

21

Question 10	4 / 4 pts

The following is a valid IP address:

130.154.1.25

Correct!

◉ True

○ False

Question 11	4 / 4 pts

The IMAP e-mail protocol is called a Pull protocol.

Answer 1:

Correct!

Pull

Question 12   4 / 4 pts

The reserved port for SSH is port 22 .

Answer 1:

Correct!
    22

Question 13   4 / 4 pts

If an HTTP server can send 2 objects over a single TCP connection, this is an example of persistent HTTP.

Answer 1:

Correct!
    persistent

Question 14   4 / 4 pts

FTP is implemented over a pair of UDP connections.

   ⦾ True

Correct!
   ◉ False

Question 15   4 / 4 pts

An FTP server maintains client states.

Correct!
   ◉ True

   ⦾ False

Question 16	4 / 4 pts

FTP is implemented over a single TCP connection.

○ True

Correct! ● False

Question 17	4 / 4 pts

HTTP implements a conditional GET using if-modified-since.

Correct! ● True

○ False

Question 18	4 / 4 pts

A client-side piece of data which is used to keep track of transactions between a client and server is called a cookie.

Correct! ● True

○ False

Question 19	4 / 4 pts

FTP is implemented over a single HTTP connection.

○ True

Correct! ● False

Question 20

4 / 4 pts

The reserved port for HTTP is port 80 .

Answer 1:

Correct!

    80

Question 21

3 / 4 pts

Consider the following:

http://www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png

- The Host Name is   [Select]   ▼

- The Path Name is   [Select]   ▼

- The URL is   [Select]   ▼

- The TLD is   [Select]   ▼

Answer 1:

Correct!

    www.oregon.gov

Answer 2:

Correct!

    /SiteCollectionImages/branding/portal/bigfoot.png

Answer 3:

Correct Answer

    http://www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png

You Answered

    www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png

Answer 4:

Correct!

    GOV

Question 22   4 / 4 pts

Cookies are not a security or privacy concern.

○ True

Correct!   ◉ False

Question 23   8 / 8 pts

A client's browser sends an HTTP request to a website. The website responds with a handshake and sets up a TCP connection. The connection setup takes 3.3 ms, including the RTT. The browser then sends the request for the website's index file. The index file references 23 additional images, which are to be requested/downloaded by the client's browser.

Assuming all other conditions are equal, how much longer would non-persistent HTTP take than persistent HTTP? (Give answer in milliseconds, without units, rounded to one decimal place. For an answer of 0.01005 seconds, you would enter "10.1" without the quotes.)

Correct!

| 75.9000 |

Correct Answer   75.9   margin of error +/- 0.1

Question 24   8 / 8 pts

A client in a network with a proxy server requests a 10 MiB file from an internet server, fakeservername.com. The network's proxy server has a 3.51 Mbps connection to fakeservername.com. The average response time between the network's proxy server and the internet origin server (including RTT) is 4.9 seconds for a small "header-only" HTTP request/response. The file requested by the client is currently in the proxy server cache, but the proxy server relays the client's request to the internet server with "if-modified since".

Assume that transmissions between the proxy and the origin servers are stream (not packets) at fullbandwidth, with negligible propagation delay.

How much time is saved if the file has not been modified? (Give answer in seconds, without units, rounded to two decimal places, so for an answer of 1.4233 seconds you would enter "1.42" without the quotes.)

Correct!

| 23.9000 |

Correct Answer   23.9   margin of error +/- 0.02

Question 25   2 / 2 pts

It is acceptable to create two TCP connections on the same server/port doublet from the same client/port doublet.

○ True

Correct!   ● False

Question 26   2 / 2 pts

The network layer manages communications from host to host .

Answer 1:

Correct!   host

Answer 2:

Correct!   host

Question 27   2 / 2 pts

The one's complement of 01101001 is 10010110

Answer 1:

Correct!   10010110

Question 28   2 / 2 pts

The transport layer manages communications from [Select] ▼ to

[Select] ▼ .

Answer 1:

Correct!   process

Answer 2:

Correct!   process

Question 29   **4 / 4 pts**

Server X is running Diablo II services on port #4000. Client A is running an application that uses port #450 to request an Diablo II TCP connection to Server X. Client B is running an application that uses port #455 to request an Diablo II TCP connection to Server X.

IP addresses:

- Server X: 152.111.20.36
- Client A: 113.13.131.10
- Client B: 114.192.111.23

The connection created for Client B is identified by the sockets at the endpoints as follows:

	IP Address	Port Number
On Client B	[Select] ▼	[Select] ▼
On Server X	[Select] ▼	[Select] ▼

Answer 1:

Correct!   152.111.20.36

Answer 2:

Correct!   4000

Answer 3:

Correct!   114.192.111.23

Answer 4:

Correct!   455

Question 30   3 / 4 pts

Server X is running XBox Live services on port #3072. Client A is running an application that uses port #1796 to request an XBox Live TCP connection to Server X. Client B is running an application that uses port #2076 to request an XBox Live TCP connection to Server X.

IP addresses:

- Server X: 201.164.10.123
- Client A: 128.193.11.113
- Client B: 128.193.45.227

Client A starts a second application (running at the same time as the first application) that uses the next incremental port number to request an XBox Live TCP connection to Server X. The connection created for Client A is identified by the sockets at the endpoints as follows:

	IP Address	Port Number
On Client A	[Select] ▼	[Select] ▼
On Server X	[Select] ▼	[Select] ▼

Answer 1:

Correct!   201.164.10.123

Answer 2:

Correct!   3072

Answer 3:

Correct!   128.193.11.113

Answer 4:

You Answered   1796

Correct Answer   1797

Quiz Score: **102** out of 108