

Week 3 Summary Exercises

Due Oct 20 at 11:59pm**Points** 92**Questions** 24**Available** Oct 13 at 12am - Oct 20 at 11:59pm 8 days**Time Limit** 360 Minutes**Allowed Attempts** 2

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	30 minutes	92 out of 92
LATEST	Attempt 2	30 minutes	92 out of 92
	Attempt 1	118 minutes	89.33 out of 92

Score for this attempt: **92** out of 92

Submitted Oct 20 at 12:33pm

This attempt took 30 minutes.

Question 1

2 / 2 pts

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

35.42 Mbps = _____ bits per second

Correct!**Correct Answer**

35,420,000

Question 2

4 / 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 #51898.

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

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

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

Answer 1:

0xBACA

Answer 2:

0xCABA

Answer 3:

2

Correct!

Correct!

Correct!

Question 3

2 / 2 pts

Which of the following are application-layer protocols?

☐ Transmission Control Protocol (TCP)

☒ Telnet

☒ Post Office Protocol v3 (POP3)

☐ User Datagram Protocol (UDP)

☒ Domain Name Service (DNS)

☒ File Transfer Protocol (FTP)

Correct!

Correct!

Correct!

Correct!

Correct!☐ Internet Protocol (IP)☒ Secure Shell (SSH)**Question 4****2 / 2 pts**

In a peer-to-peer architecture, no one host is always on, but hosts may connect amongst themselves in an on-demand fashion.

Answer 1:

peer-to-peer

Correct!**Question 5****2 / 2 pts**

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

☐ Jitter minimization☒ None of these services are provided by UDP☐ Message security☐ Minimum bandwidth☐ Connection-oriented service☐ Congestion control☐ Flow control**Correct!**

Question 6**2 / 2 pts**

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

Answer 1:

UDP

Correct!**Question 7****2 / 2 pts**

A program running on a host is called a process

Answer 1:

process

Correct!**Question 8****4 / 4 pts**

The SMTP application-layer protocol utilizes the TCP transport-layer protocol.

Answer 1:

TCP

Correct!**Question 9****4 / 4 pts**

The following is a valid IP address:

130.154.1.25

Correct!☒ True☐ False**Question 10****4 / 4 pts**

Consider the following:

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

- The Host Name is [www.oregon.gov](http://www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png)

- The Path Name is

- The URL is

- The TLD is

Answer 1:**Correct!**

[www.oregon.gov](http://www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png)

Answer 2:**Correct!**

[/SiteCollectionImages/branding/portal/bigfoot.png](http://www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png)

Answer 3:**Correct!**

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

Answer 4:**Correct!**

[GOV](http://www.oregon.gov/SiteCollectionImages/branding/portal/bigfoot.png)

Question 11**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 12

4 / 4 pts

The reserved port for FTP data transfer is port 20 .

Answer 1:

Correct!

20

Question 13

4 / 4 pts

Consider the following:

<http://oregonstate.edu/img/audience/future-apply.jpg>

- The Host Name is oregonstate.edu
- The Path Name is /img/audience/future-apply.jpg

• The URL is

• The TLD is

Answer 1:

Correct!

oregonstate.edu

Answer 2:

Correct!

/img/audience/future-apply.jpg

Answer 3:**Correct!**

http://oregonstate.edu/img/audience/future-apply.jpg

Answer 4:**Correct!**

EDU

Question 14**4 / 4 pts**

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

☐ True

Correct!

☒ False

Question 15**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 16**4 / 4 pts**

The DNS application-layer protocol utilizes the UDP transport-layer protocol.

Answer 1:

Correct!

UDP

Question 17**4 / 4 pts**

The following is a valid IP address:

130.154.465.201

☐ True

☒ False

Correct!**Question 18****4 / 4 pts**

Place the steps in the correct order for a complete e-mail communication.

1. [Select] ▼

2. [Select] ▼

3. [Select] ▼

4. [Select] ▼

5. [Select] ▼

6. [Select] ▼

Answer 1:

Alice uses her user agent to compose message and sent to Bob's email address.

Correct!**Answer 2:**

Correct!

Alice's user agent sends message to her mail server; message placed in message queue.

Answer 3:**Correct!**

Client side of SMTP opens TCP connection with Bob's mail server.

Answer 4:**Correct!**

SMTP client sends Alice's message over the TCP connection.

Answer 5:**Correct!**

Bob's mail server places the message in Bob's mailbox.

Answer 6:**Correct!**

Bob uses his user agent to read the message.

Question 19**4 / 4 pts**

The reserved port for FTP control is port 21 .

Answer 1:**Correct!**

21

Question 20**4 / 4 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 2 sec, including the RTT. The browser then sends the request for the website's index file. The index file references **5** additional images, which are to be requested/downloaded by the client's browser. How many requests (including the initial request) must be sent by the browser...

1. With non-persistent HTTP? requests

2. With persistent HTTP? requests

Answer 1:

Correct!

12

Answer 2:

Correct!

7

Question 21

4 / 4 pts

Consider the following:

http://oregonstate.edu/admissions/sites/all/themes/doug_fir/images/osu-tag.png

- The Host Name is oregonstate.edu

- The Path Name is

- The URL is

- The TLD is EDU

Answer 1:

Correct!

oregonstate.edu

Answer 2:

Correct!

/admissions/sites/all/themes/doug_fir/images/osu-tag.png

Answer 3:

Correct!

http://oregonstate.edu/admissions/sites/all/themes/doug_fir/images/osu-tag.png

Answer 4:**Correct!**

EDU

Question 22**4 / 4 pts**

The HTTP application-layer protocol utilizes the TCP transport-layer protocol.

Answer 1:**Correct!**

TCP

Question 23**8 / 8 pts**

A client in a network with a proxy server requests a 7 MiB file from an internet server, fakeservername.com. The network's proxy server has a 2.12 Mbps connection to fakeservername.com. The average response time between the network's proxy server and the internet origin server (including RTT) is 5.4 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 full bandwidth, 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!**Correct Answer**

27.7 margin of error +/- 0.02

Question 24**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 9.4 ms, including the RTT. The browser then sends the request for the website's index file. The index file references 27 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!**Correct Answer**

253.8 margin of error +/- 0.1

Quiz Score: 92 out of 92