

Week 4 Summary Exercises

Due Oct 27 at 11:59pm**Points** 48**Questions** 23**Available** Oct 20 at 12am - Oct 27 at 11:59pm 8 days**Time Limit** 360 Minutes**Allowed Attempts** 2

Attempt History

	Attempt	Time	Score
KEPT	Attempt 1	125 minutes	48 out of 48
LATEST	Attempt 2	14 minutes	42 out of 48
	Attempt 1	125 minutes	48 out of 48

Score for this attempt: **42** out of 48

Submitted Oct 27 at 6:05pm

This attempt took 14 minutes.

Question 1

2 / 2 pts

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

Answer 1:

TCP

Correct!

Question 2

2 / 2 pts

The POP3 e-mail protocol is called a Pull protocol.

Answer 1:

Pull

Correct!

Question 3**2 / 2 pts**

HTTP implements caching by use of a UDP check.

☐ True☒ False**Correct!****Question 4****2 / 2 pts**

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

Answer 1:

persistent

Correct!**Question 5****2 / 2 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:**Correct!**

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

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 6**1 / 1 pts**

Compute the sum with carry-wraparound (sometimes called the one's complement sum) of the following two numbers. Give answer in 8-bit binary, zero-padded to 8 bits if necessary, with no spaces (e.g. 00101000). Please note this is different than the checksum calculation.

NOTE: Canvas will remove any leading zeros from your answer. This will not cause your answer to be marked as incorrect.

10010110
10010000

Correct!

100,111

Correct Answers

100,111 (with margin: 0)

Question 7**1 / 1 pts**

Compute the sum with carry-wraparound (sometimes called the one's complement sum) of the following two numbers. Give answer in 8-bit binary, zero-padded to 8 bits if necessary, with no spaces (e.g. 00101000). Please note this is different than the checksum calculation.

NOTE: Canvas will remove any leading zeros from your answer. This will not cause your answer to be marked as incorrect.

```
10000010
10000001
```

Correct!

100

Correct Answers

100 (with margin: 0)

Question 8**2 / 2 pts**

If I want to be reasonably sure the recipient received my transmitted information, I would use the TCP protocol.

Answer 1:**Correct!**

TCP

Question 9**2 / 2 pts**

The UDP protocol provides unreliable, connectionless service.

Correct!

☒ True

☐ False

Question 10

2 / 2 pts

For demultiplexing, a TCP socket is identified by...

☐ <destination address, destination port>

☐ <source address, source port>

Correct!

☒ <source address, source port, destination address, destination port>

Question 11

2 / 2 pts

The TCP protocol uses a 16 -bit, 1 's complement of the 1 's complement sum to compute the checksum.

Answer 1:

Correct!

16

Answer 2:

Correct!

1

Answer 3:

Correct!

1

Question 12**2 / 2 pts**

The UDP protocol uses a [Select] -bit,
[Select]'s complement of the
[Select]'s complement sum to compute the
checksum.

Answer 1:

16

Answer 2:

1

Answer 3:

1

Correct!**Correct!****Correct!****Question 13****0 / 2 pts**

The UDP protocol provides error detection.

Correct Answer☐ True**You Answered**☒ False**Question 14****2 / 2 pts**

The one's complement of 10010110 is 01101001

Answer 1:**Correct!**

01101001

Question 15**2 / 2 pts**

The one's complement of 01101001 is 10010110

Answer 1:**Correct!**

10010110

Question 16**2 / 2 pts**

The UDP protocol provides reliable, connectionless service.

Correct!☐ True☒ False**Question 17****0 / 2 pts**

For demultiplexing, a UDP socket is identified by...

☐ <source address, source port, destination address, destination port>**Correct Answer**☐ <destination address, destination port>**You Answered**☒ <source address, source port>

Question 18**2 / 2 pts**

The network layer manages communications from

[Select]



to

[Select]



.

Answer 1:

host

Answer 2:

host

Correct!

Correct!

Question 19**2 / 2 pts**

Which of the following best describes reliable data transfer in the internet (using networking terminology)?

☐ The ability to send information into the internet reliably.

☐ The ability to send and receive information that you are 100% sure is exactly what was sent, without losing any information.

☒ The ability to send and receive information that you are reasonably sure is what was sent, without losing any information.

☐ The ability to know whether or not your sent or received information was changed in transit.

Correct!

Question 20**2 / 2 pts**

If I want to be fair about my usage of internet resources, I would use the TCP protocol.

Answer 1:

TCP

Correct!**Question 21****2 / 2 pts**

The TCP protocol provides error detection and correction.

☐ True☒ False**Correct!****Question 22****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

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!**

201.164.10.123

Answer 2:**Correct!**

3072

Answer 3:**Correct!**

128.193.45.227

Answer 4:**Correct Answer**

2076

You Answered

2077

Question 23**3 / 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	<div>[Select] ▼</div>	<div>[Select] ▼</div>
On Server X	<div>[Select] ▼</div>	<div>[Select] ▼</div>

Answer 1:

Correct!

152.111.20.36

Answer 2:

Correct!

4000

Answer 3:

Correct!

114.192.111.23

Answer 4:

Correct Answer

455

You Answered

456

Quiz Score: 42 out of 48