

# Quiz-3 Results for Gabriel Warkentin

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Score for this quiz: **8** out of 8

Submitted Feb 24 at 9:11pm

This attempt took 11 minutes.

## Question 1

1 / 1 pts

Considering a task of distributing a file from a central file server to the three clients using Client-Server model.

Given:

file size: 17 Megabytes

server uplink rate: 31 Mbps

client 1 downlink rate: 17 Mbps

client 2 downlink rate: 18 Mbps

client 3 downlink rate: 17 Mbps

Calculate the minimum time in seconds needed to distribute this file from the central server to the three hosts.

Remember: 1 byte = 8 bits, 1 Mega =  $10^6$ , 1 Mbps =  $10^6$  bits per second

**Enter number of seconds rounded to 2 digits after the decimal point (enter the number only, no unit)**

**Correct!**

**Correct Answer**

13.16 margin of error +/- 0.01

## Question 2

1 / 1 pts

Consider an HTTP server and client scenario. Suppose that the RTT delay between the client and server is 16 msec and any HTTP message

not containing an object has a negligible (zero) transmission time.

The browser uses persistent mode and a TCP connection has already been established, and the session is ongoing for some time with the same server.

Suppose the client again makes 56 requests, one after the other, waiting for a reply to a request before sending the next request.

Assuming the client is using HTTP 1.1 and the IF-MODIFIED-SINCE header line. Also assume 43% of the objects requested have NOT changed since the client downloaded them (before these 56 downloads are performed), each requested object is 130 bytes, and the server uplink speed is 39 Mbps.

How much time elapses (in milliseconds) between the client transmitting the first request, and the completion of the last request?

**Answer by entering the number of milliseconds with two digits after the decimal point (number only, no unit)**

Correct!

896.85

Correct Answer

896.85 margin of error +/- 0.01

### Question 3

1 / 1 pts

The python statement:

```
clientSocket = socket(AF_INET,SOCK_DGRAM)
```

☐ creates a TCP socket.

☒ creates an UDP socket.

☐ creates both UDP and TCP sockets.

☐ none of these

Correct!

#### Question 4

1 / 1 pts

BitTorrent is an example of peer-to-peer file distribution.

Correct!

- ☒ True
- ☐ False

#### Question 5

1 / 1 pts

Which of the following apps can tolerate some data loss?

Correct!

- ☒ Real-time audio or video
- ☐ E-mail
- ☐ File transfer
- ☐ Text messaging

#### Question 6

1 / 1 pts

An application-layer protocol defines \_\_\_\_\_.

Correct!

- ☐ message syntax
- ☐ types of messages exchanged
- ☐ message semantics and rules
- ☒ All of these

### Question 7

1 / 1 pts

Web caches are \_\_\_\_\_.

Correct!

☒ proxy servers

☐ name servers

☐ web servers

☐ backup servers

### Question 8

1 / 1 pts

An email system consists of \_\_\_\_\_.

Correct!

☐ user agents

☐ mail servers

☐ SMTP

☒ All of these

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