Week 2 Summary Exercises

Due Jul 9 at 11:59pm **Points** 82 **Questions** 20 **Available** Jul 2 at 12am - Jul 9 at 11:59pm 8 days
Time Limit 360 Minutes **Allowed Attempts** 2

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	42 minutes	62.2 out of 82

Score for this attempt: **62.2** out of 82
Submitted Jul 8 at 11:19pm
This attempt took 42 minutes.

Question 1

2 / 2 pts

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

42 MiB = _____ bits

Correct!

352321536.0000

Correct Answer

352321536.0

Question 2

2 / 2 pts

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

9.28 Mbps = _____ bits per second

Correct!

9280000.0000

Correct Answer

9280000.0

Question 3

5 / 5 pts

Suppose there are 52 packets entering a queue at the same time. Each packet is of size 299 KiB. The link transmission rate is 1 Gbps. What is the queueing delay of packet number 19 (in milliseconds, rounded to one decimal place, e.g. 0.01234 seconds would be entered as "12.3")

Correct!

44.1000

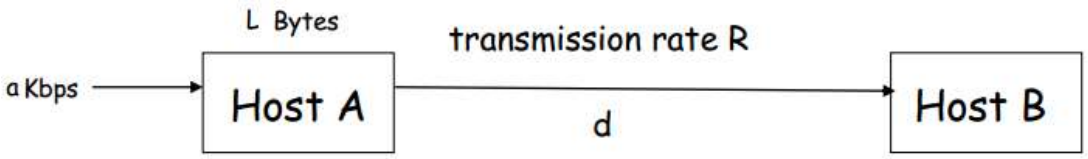
Correct Answer

44.1 margin of error +/- 0.1

Question 4

0 / 5 pts

Voice over IP (VoIP)



Given the attached image, and:

- Host A converts analog to digital at a = 56 Kbps
- Link transmission rate R = 1.1 Mbps
- Host A groups data into packets of length L = 71 bytes
- Distance to travel d = 811.3 km
- Propagation speed s = 2.5 x 10^8 m/s
- Host A sends each packet to Host B as soon as it gathers a whole packet.
- Host B converts back from digital to analog as soon as it receives a whole packet.

How much time elapses from when the first bit starts to be created until the conversion back to analog begins? Give answer in milliseconds (ms) to two decimal places, normal rounding, without units (e.g. 1.5623 ms would be entered as "1.56" without the quotes)

You Answered

48.6900

Correct Answer

13.9 margin of error +/- 0.02

Question 5

8 / 8 pts

Given a link with a maximum transmission rate of 63 Mbps. Only two computers, X and Y, wish to transmit starting at time t = 0 seconds. Computer X sends ***fileX*** (9 MiB) and computer Y sends ***fileY*** (286 KiB), both starting at time t = 0.

- Computer X gets the transmission medium first, so Computer Y must wait.
- For the following calculations, assume maximum transmission rate during transmission.
- Suppose that entire files are sent as a stream (no packets, no multiplexing).

At what time (t = ?) would *FileY* finish transmitting?

Give answer in seconds, without units, and round to two decimal places (e.g. for an answer of 12.4567 seconds you would enter "12.46" without the quotes)

Correct!

1.2400

Correct Answer

1.24 margin of error +/- 0.02

Question 6

2 / 4 pts

Please select all examples of systems using unguided media.

Correct Answer

- [ ] Signal flares
- [ ] Cable television/internet
- [ ] Fiber-Optic Internet
- [ ] Ethernet Home Networks

Correct!

- [x] 802.11 Wifi Home Networks

Correct!

- [x] Human speech
- [ ] ADSL

Correct Answer

- [ ] Global Positioning System (GPS

Question 7

4 / 4 pts

Merging multiple communication streams into the same media is called _____?

- morphing
- interoperability
- encapsulation

Correct! multiplexing

Question 8

4 / 4 pts

In the Internet protocol stack, the Application Layer is responsible for assembling user data to be sent.

Answer 1:

Correct! Application Layer

Question 9

4 / 4 pts

Please place the following in the order of the OSI layering model.

Layer 7: [Select]

Layer 6: [Select]

Layer 5: [Select]

Layer 4: [Select]

Layer 3: Network Layer

Layer 2: [Select]

Layer 1: Physical Layer

Answer 1:

Correct! Application Layer

Answer 2:

Correct! Presentation Layer

Answer 3:

Correct! Session Layer

Answer 4:

Correct! Transport Layer

Answer 5:

Correct! Network Layer

Answer 6:

Correct! Link Layer

Answer 7:

Correct! Physical Layer

Question 10

4 / 4 pts

_____ is designed to act like a server, and can distribute data from an infected computer to a remote host upon request.

- A DoS attack
- An IP spoofer
- A virus
- Correct! Spyware
- A packet sniffer

Question 11

0 / 4 pts

In the Internet protocol stack, if a data transfer is connection-oriented, it is implemented at the Network Layer .

Answer 1:

You Answered Network Layer

Correct Answer Transport Layer

Question 12

4 / 4 pts

If your computer becomes infected, you may be enrolled in a botnet(s) and used in DDoS attack(s) against other hosts without your knowledge.

Answer 1:

Correct! botnet(s)

Answer 2:

Correct! DDoS attack(s)

Question 13

4 / 4 pts

_____ are designed to destroy files or cause a computer malfunction.

- DoS attacks
- packet sniffers
- IP spoofers
- spyware
- Correct! viruses

Question 14

0 / 4 pts

Protocol _____ allows multiple protocols to work together.

- You Answered: encapsulation
- Correct Answer: interoperability
- morphing
- multiplexing

Question 15

4 / 4 pts

In the internet, an application-level protocol implemeting email service would most likely utilize TCP as its transport-layer protocol.

Answer 1:

Correct! TCP

Question 16

4 / 4 pts

A program running on a host is called a process

Answer 1:

Correct! process

Question 17

4 / 4 pts

A paired IP address and port number is called a socket

Answer 1:

Correct! socket

Question 18

3.2 / 4 pts

Which of the following are application-layer protocols?

- [ ] Transmission Control Protocol (TCP)
- [x] Correct! File Transfer Protocol (FTP)
- [x] Correct! Domain Name Service (DNS)

Correct! ☑ Telnet

Correct! ☑ Post Office Protocol v3 (POP3)

☐ User Datagram Protocol (UDP)

Correct Answer ☐ Secure Shell (SSH)

☐ Internet Protocol (IP)

Question 19

4 / 4 pts

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

☐ Local Host IP

Correct! ☑ Remote Host IP

☐ Local Socket Info

☐ Gateway Router IP

Correct! ☑ Remote Port Number

☐ Local Port Number

Question 20

0 / 4 pts

In a peer-to-peer architecture, one host is always on, and other hosts may connect and be continually serviced by this first host.

Answer 1:

You Answered peer-to-peer

Correct Answer client-server

Quiz Score: **62.2** out of 82