Week 2 Summary Exercises

Due Oct 13 at 11:59pm

Points 82

Questions 20

Available Oct 6 at 12am - Oct 13 at 11:59pm 8 days

Time Limit 360 Minutes

Allowed Attempts 2

Attempt History

	Attempt	Time	Score
KEPT	Attempt 1	254 minutes	82 out of 82
LATEST	Attempt 2	27 minutes	77 out of 82
	Attempt 1	254 minutes	82 out of 82

Score for this attempt: 77 out of 82

Submitted Oct 13 at 9:50pm This attempt took 27 minutes.

Question 1

2 / 2 pts

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

Correct!

216

orrect Answer

216

Question 2

2 / 2 pts

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

89.12 Kbps = _____ bits per second

Correct!

89,120

orrect Answer

89,120

Question 3 5 / 5 pts

What is the total utilization of a circuit-switched network, accommodating five users with equal bandwidth share, and the following properties:

- Three users each using 57% of their bandwidth share
- Two users each using 17% of their bandwidth share

Give answer in percent, with one decimal place (normal rounding) and no percentage sign (e.g. for 49.15% you would enter "49.2" without the quotes).

Correct!

41

orrect Answer

41 margin of error +/- 0.1

Question 4 0 / 5 pts

Suppose there are 4 routers in sequence between Host A and Host B, all of which use store-and-forward routing. What is the total end-to-end delay for a packet originating from Host A with destination Host B, under the following conditions.

Each of the link transmission rates are 9.4 Mbps

The total distance from Host A to Host B along its path of transmisison is 123.4 km

The speed of propagation through the transmission medium is is 2.7×10^8 m/s

The packet size is 2 KiB

Remember that you must also uplink from Host A to the first router. Give answer in milliseconds, rounded to 1 decimal place, without units (e.g. for 0.12345 seconds you would enter "123.5" without the quotes).

'ou Answered

10.9

orrect Answer

9.2 margin of error +/- 0.1

Question 5 8 / 8 pts

Given a link with a maximum transmission rate of 57.6 Mbps. Only two computers, X and Y, wish to transmit starting at time t = 0 seconds. Computer X sends *fileX* (5 MiB) and computer Y sends *fileY* (90 KiB), both starting at time t = 0.

- Statistical multiplexing is used, with details as follows
 - Packet Payload Size = 1000 Bytes
 - Packet Header Size = 24 Bytes (overhead)
- Ignore Processing and Queueing delays
- Assume partial packets (packets consisting of less than 1000 Bytes of data) are padded so that they are the same size as full packets.
- Assume continuous alternating-packet transmission.
- Computer X gets the transmission medium first.

At what time (t = ?) would FileX 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!

0.76

orrect Answer

0.76 margin of error +/- 0.02

Question 6 In the Internet protocol stack, the Application Layer is responsible for assembling user data to be sent. Answer 1: Application Layer

	Question 7	4 / 4 pts
	Merging multiple communication streams into the same media is ca?	alled
	interoperability	
	encapsulation	
Correct!	multiplexing	
	morphing	

Correct!	Question 8	4 / 4 pts
	Please select all examples of systems using unguided media.	
	✓ Global Positioning System (GPS	
	Cable television/internet	
	ADSL	

Please select all examples of systems using guided media.

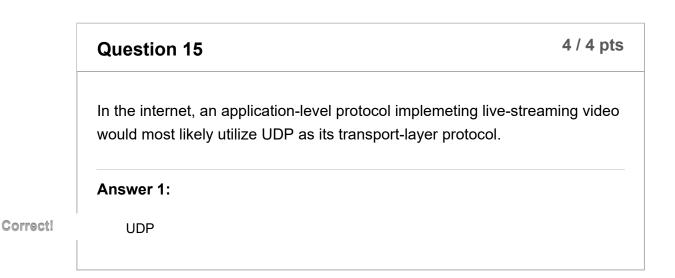
10/13/2019	Week 2 Summary Exercises: INTRO TO COMPUTER NETWORKS (CS_372_400_F2019)		
Correct!			
	Global Positioning System (GPS		
Correct!	Fiber-Optic Internet		
	Human speech		
	Signal flares		
Correct!			
	802.11 Wifi Home Networks		
Correct!	Cable television/internet		

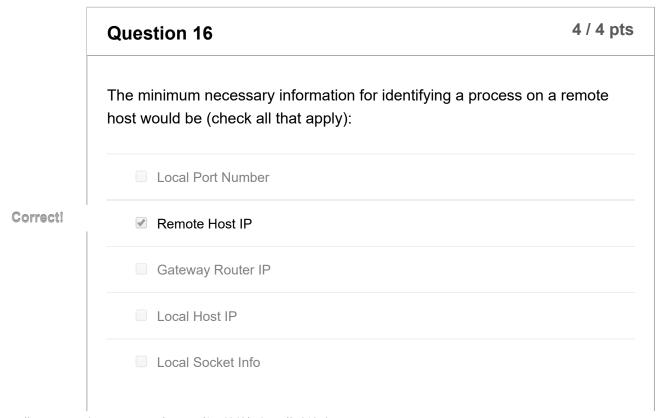
	Question 12		4 / 4 pts
	Please place the following in	the order of the OSI layering m	nodel.
	Layer 7: [Select]	•	
	Layer 6: [Select]	•	
	Layer 5: [Select]	•	
	Layer 4: [Select]	▼	
	Layer 3: Network Layer		
	Layer 2: [Select]	▼	
	Layer 1: [Select]	▼	
	Answer 1:		
orrect!	Application Layer		
lorogonstata	Answer 2: .instructure.com/courses/1771948/quizzes/250	01870	

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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 13 4 / 4 pts	>
	A third party intercepting a packet and downloading its information before it is sent onward toward its destination is called	3
	□ a DoS attack	
	malware	
Correct!	a packet sniffer	
	a virus infection	
	an IP spoofer	

Question 14 In the internet, an application-level protocol implemeting web browsing would most likely utilize TCP as its transport-layer protocol. Answer 1: TCP





Correct!

Remote Port Number

Question 17 4 / 4	pts
What transport-layer services are provided by the base TCP protocol? (Check all that apply)	
✓ Flow control	
✓ Connection-oriented service	
Minimum bandwidth	
Message security	
Congestion control	
Reliable data transmission	
Jitter minimization	
	What transport-layer services are provided by the base TCP protocol? (Check all that apply) Flow control Connection-oriented service Minimum bandwidth Message security Congestion control Reliable data transmission

	Question 18	4 / 4 pts
	A program running on a host is called a process	
	Answer 1:	
Correct!	process	

Question 19 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: TCP

Quiz Score: 77 out of 82