

This homework assignment is for students who do not have a Moodle account. Students with a Moodle account should complete the homework online. Please complete these questions in a separate document and email the answer to me by January 31 23:55.



Computer Science dept.

California State University at Bakersfield

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1 🚩 Web applications follow the client-server model.

Marks: 1

Answer: True
 False

2 🚩 A collection of independent computers appearing to a user as a single coherent system is called a _____ system.

Marks: 1

Answer:

3 🚩 Copyright holders who feel threatened often issue a _____ takedown notice to users who are suspected of infringing copyright.


Marks: 1

Answer:

4  Peer-to-peer communication follows the client-server model.


Marks: 1

Answer: True
 False

5  A computer network is a system where a collection of independent computers appears to its users as a single coherent system.


Marks: 1

Answer: True
 False

6  RFID tags are passive, but require a battery.


Marks: 1

Answer: True
 False

7  In a _____ network, a packet sent by a machine is received by all machines whether they are the intended recipient or not.

Marks: 1

Answer:

8  In a wireless local network, an _____ point relays packets between the computers and also between them and the internet.

Marks: 1

Answer:

9 🚩 The non-local network of networks by which two computers communicate is called the:

Marks: 1

Answer:

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10 🚩 The seventh layer in the OSI reference model is:

Marks: 1

Answer:

11 🚩 Consider a hypothetical OSI-based network stack. The application layer adds 4 B of header and trailer; session layer, 7 B; transport layer, 4 B; and data link layer, 8 B.

Marks: 2

Suppose that we want to limit the overhead to be no more than 5% of the intended message from the application layer. What is the minimum size of payload from the application layer in order to meet this constraint? Give the answer in bytes, rounding to the nearest whole number.

Answer:

12 🚩 How long will it take for you to transmit a GIF image (8 bits per pixel) at PAL resolution (768x576 pixels) over 100 Mbps ethernet connection? Give the answer in

Marks: 2

whole milliseconds.

Answer:

13 📖 Your task is to transmit 9 TB of data from your company's current location in New York to Paris which is roughly 3631 mi away. The company spends most of it's money upkeeping the company jet, a Convair 880--that cruises at roughly 660 mph. As a consequence, the company has a rather poor internet connection can only support up to 5 Mbps of upload speed. Is it faster for you to take the drives to the location physically on the company jet, rather than upload it? Assume that the plane travels at its maximum speed the entire time, and you are allowed to use 100% of the company's bandwidth and it will not be interrupted. True=yes.

Marks: 2

Answer: True
 False

14 📖 How long will it take for you to transmit a PNG image (32 bits per pixel) at 2K resolution (2048x1080 pixels) over 56 kbps modem connection? Give the answer in whole milliseconds.

Marks: 2

Answer:

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Marks: 2

Your task is to transmit 10 TB of data from your company's current location in New York to Los Angeles which is roughly 2448 mi away. The company spends most of it's money upkeeping the company jet, a Boeing 737--that cruises at roughly 598 mph. As a consequence, the company has a rather poor internet connection can only support up to 5 Mbps of upload speed. Is it faster for you to take the drives to the location physically on the company jet, rather than upload it? Assume that the plane travels at its maximum speed the entire time, and you are allowed to use 100% of the company's bandwidth and it will not be interrupted. True=yes.

- Answer:
- True
 - False

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