Grade Book Detail

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Exercise 1 (Chap 1)

Started: September 21, 2019, 4:40 pm
Last change: September 23, 2019, 6:52 pm

Showing Scored Attempts | Show Last Attempts | Show Review Attempts

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ch1-18 Which of the OSI layers handlers each of the following:
(a) Dividing the transmitted bit stream into frames. Data Link Layer
(b) Determining which route through the subnet to use. Network Layer

| Show Answer |

| Show Answer |

Question 1: 10 (parts: 5, 5) out of 10 in 5 attempt(s)

Q. A system has an 7-layer protocol hierarchy. Applications generate messages of length 1000 bytes. At each of the layers , an 20 byte header is added. What fraction of the network bandwidth is filled with headers?
A. 12 _____ % (round to integer)

| Show Answer |

Question 2: 10 out of 10 in 5 attempt(s)

Q. How long was a bit on the original 802.3 standard in meters? Use a transmission speed of 10 Mbps and assume the propagation speed in coax is 2/3 the speed of light in vacuum.
A. 20 _____ meters.

| Show Answer |

Question 3: 10 out of 10 in 5 attempt(s)

Q. A client-server system uses a satellite network, with the satellite at a height of 40000 km. What is the best-case delay in response to a request?
A. 533 _____ msec

| Show Answer |

Question 4: 10 out of 10 in 5 attempt(s)

Q. An image is 1024 x 768 pixels with 3 bytes/pixel. Assume the image is uncompressed. How long does it take to transmit it over a 56-kbps modem channel? Over a 1-Mbps cable modem? Over a 10-Mbps Ethernet? Over 100-Mbps Ethernet? (round to three decimal

place)
A. for 56kbps: 337.042   sec
A. for 1Mbps: 18.874   sec
A. for 10Mbps: 1.887   sec
A. for 100Mbps: 0.189   sec

Show Answer
Show Answer
Show Answer
Show Answer

Question 5: 10 (parts: 2.5, 2.5, 2.5, 2.5) out of 10 in 5 attempt(s)

Q. A collection of five routers is to be connected in a point-to-point subnet. Between each pair of routers, the designers may put a high-speed line, a medium-speed line, a low-speed line, or no line. If it takes 100 ms of computer time to generate and inspect each topology, how long will it take to inspect all of them? (give your answer as xxx.xx)
A. 104856.6   seconds

Show Answer

Question 6: 10 out of 10 in 5 attempt(s)

Which of the following description about OSI layers is incorrect?

○ The physical layer is concerned with transmitting raw bits over a communication channel

◉ The data link layer is a true end-to-end layer, all the way from the source to the destination

○ The network layer controls the operation of the subnet and determines how packets are routed from source to destination

○ The application layer contains a variety of protocols that are commonly needed by users

Show Answer

Question 7: 10 out of 10 in 5 attempt(s)

Which service model is connection-oriented service?

◉ virtual circuit service

○ acknowledged datagram service

○ client-server service

○ datagram service

Show Answer

Question 8: 10 out of 10 in 5 attempt(s)

What is the name of PDU at the network layer of the OSI reference model?

    ○ message

    ○ frame

    ◉ packet

    ○ segment

Show Answer

Question 9: 10 out of 10 in 5 attempt(s)

Some network systems support transmission to a subset of the machines. This mode of operation is called:

    ○ flow control

    ○ congestion control

    ◉ multicasting

    ○ broadcasting

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Question 10: 10 out of 10 in 5 attempt(s)

Total: 100/100

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