Started on	Friday, 2 August 2024, 9:02 AM
State	Finished
Completed on	Friday, 2 August 2024, 9:09 AM
Time taken	6 mins 45 secs
Grade	**18.00** out of 20.00 (**90**%)

Question 1

Correct

Mark 2.00 out of 2.00

Consider the following two statements:

S1: Time Division Multiplexing is an example of Circuit Switching

S2: Frequency Division Multiplexing is an example of Packet Switching

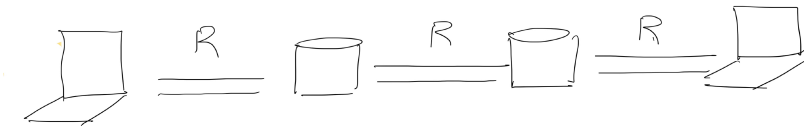
Select one or more:

- [ ] A. Both statements are incorrect
- [ ] B. Both statements are correct
- [ ] C. S1 is incorrect but S2 is correct
- [x] D. S1 is correct but S2 is incorrect ✓

Question 2

Correct

Mark 2.00 out of 2.00



Consider a circuit switched network with each link having a single circuit of bandwidth 100 kbps. What is the transmission delay for sending 1 kbit data?

Select one or more:

- [ ] a. 0.03s
- [ ] b. 0.02s
- [ ] c. 0.04s
- [x] d. 0.01s ✓

Question 3

Correct

Mark 2.00 out of 2.00

Select all that statements that are true for packet switching.

Select one or more:

- a. Guarantees fixed bandwidth for the entire duration of data transfer
- b. Is more resource efficient ✓
- c. Resource reservation is done before transmission
- d. Provides best effort delivery ✓

Question 4

Correct

Mark 2.00 out of 2.00

- Transport-layer protocol encapsulates application-layer message, M, with transport layer-layer header (h1) to create a transport-layer ____x_____.
- Network-layer protocol encapsulates transport-layer ___x_____ with network layer header(h2) to create network layer _____y_____.
- Link-layer protocol encapsulates network layer _____y_____ with with link-layer header(h3) to create link layer ____z____

x, y, z are:

Select one or more:

- a. Segment, Datagram, Frame ✓
- b. Frame, Datagram, Segment
- c. Frame, Segment, Datagram
- d. Datagram, Frame, Segment

Question 5

Correct

Mark 2.00 out of 2.00

Select all layers that are found in IP protocol stack.

Select one or more:

- a. Session layer
- b. Presentation layer
- c. Link layer ✓
- d. Network layer ✓

Question 6

Correct

Mark 2.00 out of 2.00

Congestion control needs to be implemented in a circuit-switched network

Select one:

- True
- False ✓

Question 7

Correct

Mark 2.00 out of 2.00

Network layer is responsible for providing host-to-host connectivity

Select one:

- True ✓
- False

Question 8

Correct

Mark 2.00 out of 2.00

Which statements are true for end-to-end design principle?

Select one or more:

- a. It provides greater flexibility in implementing some network services ✓
- b. It improves the security of the network
- c. It simplifies application design
- d. It simplifies router design ✓

Question 9

Incorrect

Mark 0.00 out of 2.00

In-network support for reliability is useful because of the following reasons (select all that apply):

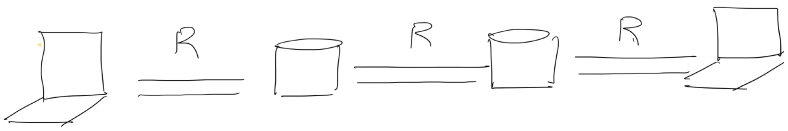
Select one or more:

- a. Simplifies the router design
- b. Better performance ✓
- c. Reduces application burden ✗
- d. Reduces overall cost

Question 10

Correct

Mark 2.00 out of 2.00



Consider the above network topology, where R = 100 kbps. Assume you want to send a data of size 1kbit, what is the total transmission delay in a packet switching approach?

Select one or more:

- [x] a. 0.03 seconds
- [ ] b. 0.02 seconds
- [ ] c. 0.01 seconds
- [ ] d. 0.04 secodns

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Assignment-1 ►