

Quiz on Jan 31

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13.

Which among the following is required functionality (not optional) in RDT protocols?
Select all that apply

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) EC
- 1) ED
- 2) Seq No
- 3) Ack
- 4) Nack

Answer: [[1, 2, 3]]

13.

Which of the following is true of sliding window protocols in general? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) $LFS-LAR \geq SWS$
- 1) $LAF = RWS + LFR$
- 2) Sender needs to buffer packets
- 3) The sequence number space is twice SWS

Answer: [[1, 2]]

13.

Which of the following is true of sliding window protocols in general? Select all that apply.

Marks: 1

Options:

- 0) If SeqNum > LAF, send frame
- 1) Without selective acks, there is no need for timeout mechanism
- 2) Cumulative acks are easier to implement than selective acks
- 3) SeqNum -LAR <= SWS, discard the frame

Answer: [[2]]

13.

What is the utilization (in percentage) of stop and wait over a link with 4Mbps speed and 4ms propagation delay with a packet size of 1000 Bytes? Format X (e.g. 55)

Marks: 1

Type: FILL_IN_THE_BLANKS_TYPE

Answer: ["20"]

13.

Which of the following is true of pure NACK based protocols? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) If errors are frequent, there is less overhead
- 1) Cannot support stop and wait protocols
- 2) If last packet is lost, cannot recover it
- 3) The longer the delay between adjacent packets, the slower the error recovery

Answer: [[2, 1, 3]]

13.

How many sequence numbers are needed for stop and wait protocol? Format X (e.g. 4)

Marks: 1

Type: FILL_IN_THE_BLANKS_TYPE

Answer: ["2"]

13.

What is the BW delay product of a link (in bits) with 10Mbps speed and one-way latency of 2ms? Format X (e.g. 15000)

Marks: 1

Type: FILL_IN_THE_BLANKS_TYPE

Answer: ["40000"]

13.

What is the utilization (in percentage) of a sliding window protocol over a link with 4Mbps speed and 4ms propagation delay with a packet size of 1000 Bytes? Assume a window size of 4 packets. Format X (e.g. 55)

Marks: 1

Type: FILL_IN_THE_BLANKS_TYPE

Answer: ["80"]

13.

For a stop and wait RDT protocol that employs ONLY Error detection and ACK where the channel only corrupts packets, which of the following can cause flaws in the protocol operation? Select all that apply

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) Data packet is corrupted
- 1) Ack packet is corrupted
- 2) Out of order delivery
- 3) Buffer overflow

Answer: [[1]]

13.

Which of the following is true of duplicate ACKs in stop and wait protocols? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) A packet may be lost at receiver
- 1) A packet may be corrupted at the the receiver
- 2) Premature timeout at sender
- 3)

An ack may be corrupted

Answer: [[1, 2]]
