

1. Given 3 bits for sequence numbers, what is the maximum sliding window size at the receiver in Go Back 3 ARQ?

2 points

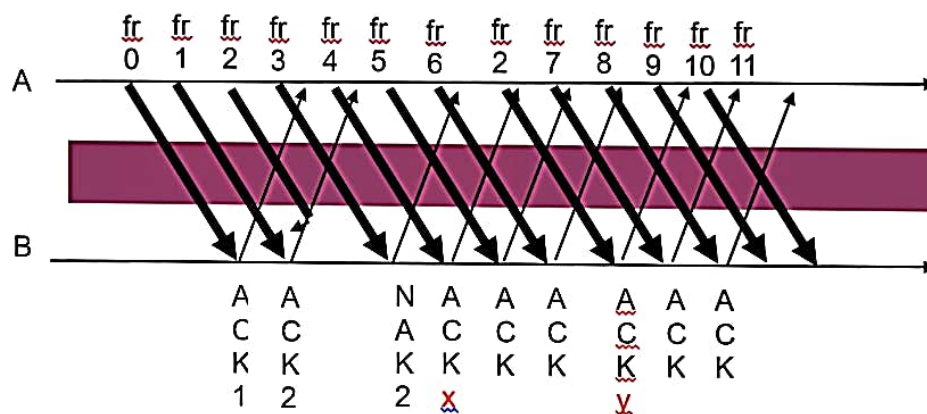
- ☐ 3
- ☒ 7
- ☐ 8
- ☐ None of the above

2. Given 3 bits for sequence numbers in Selective Repeat ARQ. If the sender already set the sliding window size to be 4, what is the maximum sliding window size at the receiver?

2 points

- ☐ 3
- ☐ 8
- ☐ 7
- ☒ None of the above

3. Consider Selective Repeat ARQ flow control protocol. In the following scenario, what should be the value of frame number  $x$  at receiver B?



2 points

☐ 3

☒ 2



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4. In the scenario above, what should be the value of frame number  $y$  at receiver B?

2 points

- ☐ 3
- ☐ 8
- ☒ 7
- ☐ None of the above

5. If the probability of error is very low in a communication link, which of the following statements is true about performance of ARQ protocol?

2 points

- ☐ Stop-and-wait and Go-back-N ARQ protocols have similar performance
- ☐ Stop-and-wait and Selective Repeat ARQ protocols have similar performance
- ☒ Go-back-N ARQ and Selective Repeat ARQ protocols have similar performance
- ☐ None of the above

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6. In peer-to-peer protocol, the purpose of Automatic Repeat Request is

1 point

- ☐ to ensure a sequence of information packet is delivered in order
- ☒ to ensure a sequence of information packet is delivered without errors or duplication despite transmission errors and losses
- ☒ to ensure a sequence of information packet is delivered out-of-order
- ☐ to ensure a sequence of information packet is delivered with an ACK request



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7. Which of the basic elements of ARQ is associated with negative acknowledgement

**1 point**

- ☒ NAKs
- ☐ ACKs
- ☐ Timeout mechanism
- ☐ Error detecting code

8. In Go-Back-N ARQ, a procedure where transmission of a new frame is begun before the completion of time of the previous frame transmission is called

**1 point**

- ☐ Transitioning
- ☒ Pipelining
- ☐ Channeling
- ☐ None of the above

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9. In Stop-and-Wait protocol, sequence number are not required

1 point

☐ True

☒ False

10. The disadvantage of Stop-and-Wait protocol

1 point

☐ Error free communication channel does not exist

☐ Acknowledgement may get lost

☐ Deadlock situation may occur

☒ All of the above