True or False?

Informal Quiz 2

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- ❑ ❑ Given a 4-level signaling scheme, where each level represents 2 bits, the baud rate is 1/2 the bit rate, and the minimum bandwidth required as per Nyquist theorem is 1/4 the bit rate.
- ❑ ❑ The portions of the optical frequency spectrum most suitable for data transmission are those regions which have the highest attenuation.
- ❑ ❑ Assuming a framing delimiter of 01111110, the bit sequence 01111111111110, after bit stuffing appears as: 0111110111111010
- ❑ ❑ The Hamming distance between two codewords can be calculated by XORing the code-words bit-by-bit and counting the number of 1s in the result.
- ❑ ❑ The number 723 goes through the check-digit procedure, and the resulting number with the check digit is: 7236
- ❑ ❑ An even parity bit value for the 8-bit string 01101010 is 0.
- ❑ ❑ Ideal flow control would implement a perfect "call-back" abstraction where the sender would send packets only when the receiver allows it to.

- ❑ ❑ A sliding window protocol with window size N has utilization N-times that of a stop-and-wait protocol.
- ❑ ❑ A short link has a high α (t_{prop}/t_{trans}) and therefore, even a stop-and-wait flow control would be efficient on it: there is no need for complexity of larger windows.
- ❑ ❑ Go-back-N ARQ trades off a small loss in performance for simplicity, increased reliability and better use of sequence number space when compared to Selective-reject ARQ.
- ❑ ❑ SLIP provides framing, protocol multiplexing, and error detection capabilities.

True or False?

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Informal Quiz 2: Solutions

√ ❑ Given a 4-level signaling scheme, where each level represents 2 bits, the baud rate is 1/2 the bit rate, and the minimum bandwidth required as per Nyquist theorem is 1/4 the bit rate.

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❑ √ SLIP provides framing, protocol multiplexing, and error detection capabilities.