

Q1: If all the links in the Internet were to provide reliable delivery service, would the TCP reliable delivery service be redundant? Give 2 reasons to support your answer. [4]

Yes/No? _____

Reason 1:

Reason 2:

Q2: Suppose two nodes start to transmit at the same time a packet of length L over a broadcast channel of rate R . Denote the propagation delay between the two nodes as d_{prop} . Will there be a collision if $d_{prop} > L/R$? Give reason to support your answer. [4]

Yes/No? _____

Reason:

Q3: In CSMA/CD, after the fifth collision, what are the possible values that a node can take to delay its transmission? [2]

Q4: In Binary exponential back off algorithm for CSMA/CD, after the 11th collision, what are the possible values that a node can take to delay its transmission? [2]

