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15035

Answer :

R14

1. False

Piggybacking is an optimization that is used when both sides have to send data to each other so that the receiver, instead of sending two packets i.e., an ACK and a data packet, it just sends one.

1. false

RcvWindow is used to give the sender an idea of how much free buffer space is available at the receiver. Thus as the amount of unacknowledged TCP data varies the RcvWindow also changes.

1. True

TCP is not permitted to overflow the allocated receiver buffer. Hence when the sender cannot send any more data RcvWindow would be 0 and hence all the buffer would have unacknowledged data.

1. False

Depending on the value of or EstimatedRTT it may or may not be greater than 1.

e) True.

f) False

next rtt = alpha \*last estimated rtt + (1-alpha )\*newly collected RTT sample.

g) False

the acknowledgement number has nothing to do with the sequence number . The ack. Number indicates the next sequence number A is expecting from .

R17

Answer

R/2

P5

Answer

No

Because the receiver can no be absolutely certain that no errors have occurred. As discussed in class , a checksum will always detect the error if only one occurs , however , multiple errors are tough for a checksum to detect due to its lack of advanced checking capabilities . for examples if a packets send [3|5] , the checksum a combination of the two would be 8 , therefore the entire sent packet is [8|3|5]

. so at the same time checksum is very limited , as long as the checksum value is correct , then it will assume the packet is correct . the binary codes for 3 and 5 are 011 and 101 respectively , if only one bit is change in each of these codes , the binary codes can then become 111 and 001 or 7 and 1 . if this were to happen, 7+1 still equals 8 , therefore the checksum value world be correct and the computer would assume that no bit errors have occurred although as you can see the packet has been changed greatly form [3|5] to [7|1] .