

Q1 : True, when connection begins, increase rate exponentially, start cwnd = 1 Mss, double after every Rtt

Q2: True, After the ssthresh is reached, the window size is increased by 1 to control congestion

Q3: True, it might time out quicker than expected

Q4: False, after a timeout the cwnd is reset back to 1 and starts up again

Q5: Triple Dupe ACK, because it loses half of cwnd

Q6: No, it may indicate a packet loss but not for each time

Q7: Time Out , cwnd is reset back to 1

Q8: No, it may indicate a packet loss but not for each time, but may also indicate corruption, congestion or re-ordering

Q9: More, more outstanding segments may lead to a quicker timeout

Q10: Because slow start takes the Cwnd and adds the amount acknowledged so it ends up doubling each time like 1-2-4-8-16 etc, so it makes a non linear curve. This gives a better speed and more packets transferred than a linear pattern would.

Q12: 400ms gone up by 1-2-4-8(ssthresh)

Q13: 1200ms, c(4000) linear line so + 1 each time up to D(16000) because ssthresh is halved, so at 4k now, so 16k-4k = 12k->1200ms

Q14: 600ms -> 1-2-4-8(ssthresh)-(+1)9-(+1)10 - up 6 times

Q15: Point B is lower as it is exponentially growing while point D is growing with congestion avoidance so it is linear and can go up by 1000 bytes each interval rather than going from 8k to 16k immediately