Q1
Physical: Learn how to use the medium of communication, create a link
Link Layer: Create a reliable link
Network: Find a set of reliable links which form a path from source to destination, routing
Transport: Ensure end-to-end reliability
Application: User interface (Source)

Q2
Slow start: A-B, C'-D, H'-I
Timeout: C, H
Fast-retransmit and Recovery: E, F, J
CWND at A, B, C, C', D, E: 1, 2^20, 2^20, 1, 2^19, 2^19+17
SSThresh at A, B, C, C', D, E: inf, inf, inf ,2^19, 2^19, 2^19

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Q4

Shortest paths from A	Link state In order	Distance Vector Same solutions as link state	If Link B-C breaks?
A-B	A-C	A-C	Link state
A-C	A-C-B or A-B	A-C-B or A-B	There will be no link to E. In the network, topology learning phase, every node will learn this.
A-C-D	A-C-D	A-C-D	Distance vector
A-B-E	A-C-B-E or A-B-E	A-C-B-E or A-B-E	Count to infinity Look at B, B will reply on its neighbor, say A, to get E. But A replies on B to get to E. That is the routing loop.