



HKUSTx: ELEC1200.3x A System View of Communications: From Signals to Packets (Part 3)

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3.1 Network Layer

Week 2 Quiz due Feb 01, 2016 at 15:30 UTC



3.2 IP Addressing

due Feb 01, 2016 at 15:30 UTC

3.3 Forwarding

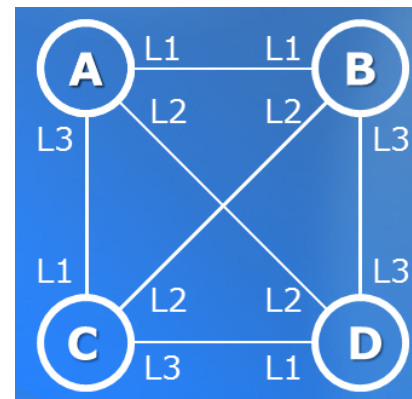
due Feb 01, 2016 at 15:30 UTC

Topic 3: The Network Layer > 3.3 Forwarding > 3.3 Quiz

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3.3 QUIZ QUESTION 1 (1/1 point)

Consider the network below, where nodes are labelled by letters, and links leaving each node by L followed by a number.



Suppose the forwarding table of each node is given by a set of ordered pairs (destination node, link), where link is the link leaving the node that should be taken to reach the destination node with least cost.

Node A: (A, -), (B, L3), (C, L3), (D, L3)

Node B: (A, L2), (B, -), (C, L2), (D, L3)

Node C: (A, L1), (B, L2), (C, -), (D, L2)

► Topic 4: Routing

► MATLAB download and tutorials

Node D: (A, L2), (B, L3), (C, L1), (D, -)

If a packet at node A is routed to node D, what path will it take?

☒ ACBD ✓

☐ ABD

☐ AD

☐ ACD

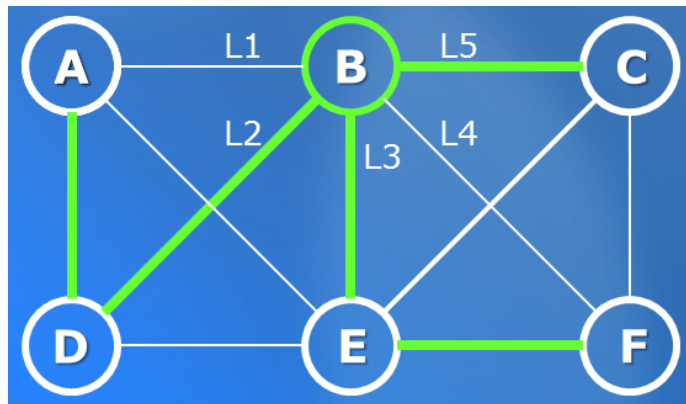
EXPLANATION

Starting at A, the packet to D is first routed on L3 to C, then at C it is routed along L2 to B, then at B it is routed along L3 to D.

You have used 1 of 2 submissions

3.3 QUIZ QUESTION 2 (1/1 point)

Consider the following network, where the bold green lines indicate the best path from node B to every other node in the network.



The forwarding tables below are given in the form of pairs (destination node, link), where “link” is the link leaving node B that should be taken to reach the “destination node” with least cost.

Which of the following is the forwarding table for node B?

☐ (A, L2), (B, -), (C, L5), (D, L3), (E, L3), (F, L5)

☒ (A, L2), (B, -), (C, L5), (D, L2), (E, L3), (F, L3) ✓

☐ (A, L1), (B, -), (C, L5), (D, L2), (E, L3), (F, L4)

☐ Not enough information is given to determine the forwarding table

EXPLANATION

Packets going from node B to D and A take link L2. Packets going to C take link L5. Packets going to E and F take link L3.

You have used 1 of 2 submissions

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