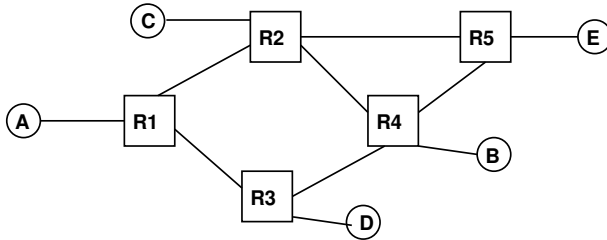


Put your name on the back in the upper right-hand corner and fold your quiz lengthwise - Thanks.

CS 440  
Quiz 9

1. Given the following network and virtual circuit tables:



	R1		R2		R3		R4		R5	
	Src	Dst	Src	Dst	Src	Dst	Src	Dst	Src	Dst
a)	A 3	R2 2	R1 2	R5 6					R2 6	E 0
b)	R3 2	R2 1	R1 1	C 1	R4 1	R1 2	B 4	R3 1		
c)	R3 3	R2 4	R1 4	C 3	D 2	R3 3				

Each of the two is missing some table entries, but you can figure out what they are.

- (a) Fill in the missing table entries.
  - (b) Fill in the missing table entries.
  - (c) In the table, show the results of adding a circuit C-R3-R1-R2-D.
2. You decide to telnet to a host from EPS 254. Describe the first routing decision made.
- The host determines if the address is local or remote. If local it looks up the MAC address of the recipient and forward the request on the local network using the physical layer protocol (such as Ethernet). If remote, it looks up the MAC address of the gateway router and sends the message to it also using the physical layer protocol, so that it can be forwarded.
3. A particular routing algorithm attempts to optimize some criteria. What criteria would cause a person to use:

- (a) Source routing - Minimal hop-by-hop impact on routers.

(b) Broadcast routing - **Fastest or most reliable route.**

(c) Store-and-forward routing - **Best response to changing conditions in the network.**