

Quiz 3 CSCI 363 Fall 2003
29 October, 2003

Name: _____

This is an open book, open notes quiz. Be sure to show your work in order to get full credit for the problem.

There are three questions on this test: Two on the front and one on the back. Be sure to work all questions!

Problem 1 (5 points)

Suppose a computer (in this case it's `bulldog.unca.edu`) has the following routing table

Network and mask length	Interface or next hop
152.18.16/20	<i>Interface tu3</i>
152.18.32/20	<i>Interface tu2</i>
152.18.64/24	<i>Interface tu0</i>
152.18.224.16/28	<i>Gateway 152.18.64.33</i>
<i>Default</i>	<i>Gateway 152.18.64.254</i>

The IP numbers that this computer uses on its three interfaces are 152.18.16.9, 152.18.32.9, and 152.18.64.9. These IP numbers will not be used in the problem.

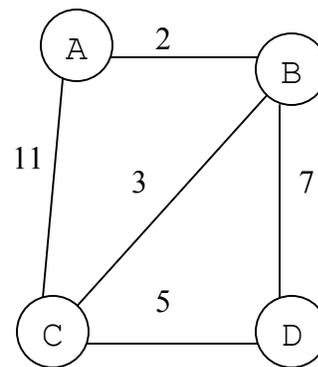
The leftmost column of the following table, gives an IP address. In the right column, write the routing for these addresses. Two examples are already given in the table.

Destination IP address	Next routing
152.18.16.33	<i>Interface tu3</i>
18.181.0.33	<i>Gateway 152.18.64.254</i>
152.18.33.33	
152.18.65.33	
152.18.69.33	
152.18.224.33	
152.18.224.23	

Problem 2 (5 points)

Given the following tree, fill in the distance vector table for node A.

Distance vector from node A		
Node	Cost	Next Hop
B		
C		
D		



Problem 3 (5 points)

Suppose a 1300 byte packet is being sent from the computer with IP number 128.14.15.16 to the computer with IP number 128.14.27.33. Assume both computers are on the same physical LAN and that the MTU (maximum transmission unit) on the LAN is 800 bytes. Fill in plausible values IP header fields of any IP packets needed to send that 1300-byte packet. You may not need to use all three IP header templates

#1 Version: _____

 Header length: _____

 Service Type: *IGNORE*

 Identification: _____ (start with your choice)

 Flags: _____

 Fragment Offset: _____

 TTL: _____ (start with 60)

 Proto Type: *IGNORE*

 Checksum: *IGNORE*

 Source IP: _____

 Destination IP: _____

#2 Version: _____

 Header length: _____

 Service Type: *IGNORE*

 Identification: _____ (start with your choice)

 Flags: _____

 Fragment Offset: _____

 TTL: _____ (start with 60)

 Proto Type: *IGNORE*

 Checksum: *IGNORE*

 Source IP: _____

 Destination IP: _____

#3 Version: _____

 Header length: _____

 Service Type: *IGNORE*

 Identification: _____ (start with your choice)

 Flags: _____

 Fragment Offset: _____

 TTL: _____ (start with 60)

 Proto Type: *IGNORE*

 Checksum: *IGNORE*

 Source IP: _____

 Destination IP: _____