

# Week 6 Quiz Results for Austin Koske

! Answers will be shown after your last attempt

Score for this attempt: 10 out of 10

Submitted Oct 11 at 6:14pm

This attempt took 9 minutes.



Question 1

2 / 2 pts

**4.2-4. Longest prefix matching.** Consider the following forwarding table below. Indicate the output to link interface to which a datagram with the destination addresses below will be forwarded under longest prefix matching. (Note: The list of addresses is ordered below. If two addresses map to the same output link interface, map the first of these two addresses to the first instance of that link interface.) [Note: You can find more examples of problems similar to this [here](#).]

([http://gaia.cs.umass.edu/kurose\\_ross/interactive/?q=c4q2](http://gaia.cs.umass.edu/kurose_ross/interactive/?q=c4q2).)

Destination Address Range	Link interface
11001000 00010111 00010*** *****	0
11001000 00010111 00011000 *****	1
11001000 00010111 00011*** *****	2
otherwise	3

11001000 00010111 00010010 10101101

This is the first destination ad ▾

11001000 00010111 00011000 00001101

This is the first destination ad ▾

11001000 00010111 00011001 11001101

This is the first destination ad ▾

10001000 11100000 00011000 00001101

This is the first destination ad ▾

11001000 00010111 00011000 11001111

This is the second destination ▾

11001000 00010111 00010001 01010101

This is the second destination ▾

11001000 00010111 00011101 01101101

This is the second destination ▾

Nice! This answer is correct.



## Question 2

2 / 2 pts

**4.3-01. What is the Internet Protocol?** What are the principal components of the IPv4 protocol (check all that apply)?

- IPv4 datagram format.
- IPv4 addressing conventions.
- Packet handling conventions at routers (e.g., segmentation/reassembly)
- Routing algorithms and protocols like OSPF and BGP.
- SDN controller protocols.
- ICMP (Internet Control Message Protocol)

Nice! This answer is correct.



## Question 3

2 / 2 pts

**4.3-02. The IPv4 header.** Match each of the following fields in the IP header with its description, function or use.

Version field

This field contains the IP protocol field

Type-of-service field

This field contains ECN and DSCP fields

Fragmentation offset field

This field is used for datagram fragmentation

Time-to-live field

The value in this field is decremented during transmission

Header checksum field

This field contains the Internet header length

Upper layer field

This field contains the "protocol" field

Payload/data field

This field contains a UDP or TCP header

Datagram length field.

This field indicates the total number of bytes in the datagram

Nice! This answer is correct.



Question 4

2 / 2 pts

**4.3-03. What is an IP address actually associated with?** Which of the following statements is true regarding an IP address? (Zero, one or more of the following statements is true).

- An IP address is associated with an interface.
- If a host has more than one interface, then it has more than one IP address at which it can be reached.
- 
- If a router has more than one interface, then it has more than one IP address at which it can be reached.
- It is not necessary for a device using the IP protocol to actually have an IP address associated with it.

Nice! This answer is correct.



### Question 5

2 / 2 pts

#### 4.3-09. Purpose of DHCP. What is the purpose of the Dynamic Host Configuration Protocol?



To configure the interface speed to be used, for hardware like Ethernet, which can be used at different speeds.



To obtain an IP address for a host attaching to an IP network.



To get the 48-bit link-layer MAC address associated with a network-layer IP address.



To configure the set of available open ports (and hence well-known services) for a server.

Nice! Your answer is correct.

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