Lecture 23 (4/14) Self-Test

Due Apr 28 at 5pm   **Points** 1   **Questions** 10
Available Apr 14 at 5pm - Jun 1 at 11:59pm about 2 months   **Time Limit** None

Score for this survey: **1** out of 1
Submitted Apr 28 at 5:22pm
This attempt took less than 1 minute.

Question 1

One reason that ARP messages are broadcast is because the sender does not yet have its own address.

○ True

⊙u Answered   ⊙ False

False, though this statement applies perfectly well to DHCP.

Question 2

Which of the following is likely to be a problem with scaling shared-medium Ethernet? (select all)

☐ High contention may lead to large amounts of backoff

⊙u Answered   ☑ Running out of addresses

☐ Inability to aggregate addresses

> High contention may lead to large amounts of backoff
>
> Inability to aggregate addresses

Question 3

How does one perform IP broadcast from a sockets application (choose the best one)?

○ Specify Ethernet address ff:ff:ff:ff:ff:ff

◉ Use the socket function sendall()

○ Specify a special IP address

> Specify a special IP address -- 255.255.255.255.
>
> On an Ethernet, the packet will end up having an Ethernet address of ff:ff:ff:ff:ff:ff, but that's not something you specify.

Question 4

Modern switched Ethernet:

○

Does not require CSMA/CD because there are only two nodes on a link

○ Does not require CSMA/CD because each node on a link transmits on its own dedicated wires

⦿ Requires CSMA/CD to deal with collisions

○ Avoids collisions by "listening before speaking"

Does not require CSMA/CD because each node on a link transmits on its own dedicated wires

Question 5

Originally, IPv6 formed host addresses by taking the network prefix and appending a host part based on a host's L2 (e.g., Ethernet) address. This is less common today. Why do you think that is?

○ The available Ethernet addresses were exhausted

⦿ User experience would be disrupted when their Ethernet addresses changed

○ Concerns about privacy and tracking

○ This approach is incompatible with DHCP

Concerns about privacy and tracking.

This way of forming public IP addresses essentially put a fairly unique identifier in every packet which is tied to your device and not to a specific physical location. Since your L2 address does not change even when you relocate, it could allow someone to correlate network activity at your home, work, a coffee shop, and so on.

Question 6

You can often find the IP address of a network device on a label on the device.

◉ True

○ False

False. But this is true of Ethernet addresses.

Question 7

Multicast and anycast are trivial to implement on Ethernet-like networks.

○ True

◉ False

False. Multicast is, but not anycast.

Question 8

The "remote" nodes in ALOHAnet could interfere with each other.

◉ True

◯ False

True. They all transmitted on the same frequency, and thus could interfere with each other. For this reason, the ALOHA multiple access protocol was developed.

Question 9

The "hub" and "remote" nodes in ALOHAnet could interfere with each other.

◉ True

◯ False

False. The hub used its own frequency and thus should never collide with anything!

Question 10

It is okay to leave Norman Abramson in your office unattended.

⦿ True

◯ False

◯ Debatable

It probably depends on your perspective. :)

Survey Score: **1** out of 1