**Đặng Hoàng Nguyên – SE171946**

**What are the source and destination MAC addresses? Which network interfaces are these MAC addresses associated with?**

Graphical user interface

Description automatically generated with medium confidence

Mac source: 00:f4:8d:22:17:dc

Mac destination: 74:12:b3:45:65:30

Graphical user interface, text, application

Description automatically generatedThe ip source associate with Network interface card of the computer

The ip destination associate with the default gateway 192.168.1.1

**What are the source and destination ports? What is the default DNS port number?**

Graphical user interface

Description automatically generated

Source port: 65142

Destination port: 53 ( default dns port number)

**Compare the MAC and IP addresses in the Wireshark results to the IP and MAC addresses. What is your observation?**

Graphical user interface

Description automatically generated

Graphical user interface, text, application

Description automatically generated

They are the same in Wireshark

**What are the source and destination MAC and IP addresses and port numbers? How do they compare to the addresses in the DNS query packets?**

A picture containing table

Description automatically generated

The query packet's source IP, MAC address, and port number are now the destination addresses. The source addresses in the inquiry packet are now the destination IP, MAC address, and port number.

**Can the DNS server do recursive queries?** Yes

Graphical user interface, text

Description automatically generated

**How do the results compare to nslookup results?** Both of them are the same

**From the Wireshark results, what else can you learn about the network when you remove the filter?**

When remove the filter, Wireshark will capture all the packet in the internet such as tcp, udp, arp,… We can use wireshark to investigate order device what they are doing in the network

**How can an attacker use Wireshark to compromise your network security?**

They can use to will know the network traffic, your device’s activity in order to steal your information if the the data send through the network is not encrypted