**Homework 7**

**Name: Coral S. Schmidt Montilla ID#:148830**

1. Open Wireshark and start packet capture. Start your browser and visit **wi-fi.org**. Once the page is loaded, stop packet capture in Wireshark. Select the Ethernet frame containing the HTTP GET message. Using the data in Wireshark’s screen, answer the following questions:
   1. What is the 48-bit Ethernet address, in hex notation, of your computer? (*1 point*)
   2. What is the 48-bit destination address, in hex notation, in the Ethernet frame? (*1 point*)
   3. Is this the Ethernet address for wi-fi.org? If the answer is no, what device has this as its Ethernet address? (*1 point*)
   4. Give the hexadecimal value for the two-byte Frame type field. (*1 point*)
   5. What upper layer protocol does this correspond to? (*1 point*)
2. Restart packet capture in Wireshark. Open the terminal window in your computer as an administrator. Run the **arp -d \*** command to flush you ARP cache. Start your browser and visit **icann.org**. Once the page is loaded, stop packet capture in Wireshark. Use **ipconfig**, or **ifconfig**, to find out your IP address. In Wireshark’s filter line write **arp** and hit ENTER. Select the Ethernet frame that contains the first ARP request from your computer. Using the data in Wireshark’s screen, answer the following questions:
   1. What is the hexadecimal value for the source address in the Ethernet frame containing the ARP request message? (*1 point*)
   2. What is the hexadecimal value for the destination address in the Ethernet frame containing the ARP request message? (*1 point*)
   3. What is the hexadecimal value of the opcode field within the ARP-payload part of the Ethernet frame in which an ARP request is made?
   4. Does the ARP message contain the IP address of the sender? If so, write it down.
   5. Does the ARP message contain the MAC address of the receiver? If so, write it down.