**Wireshark Lab 5: Ethernet and ARP**

**Group Details:**

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|  | **Question** | **Answer** |
| 1 | What is the 48-bit Ethernet address of your computer? | 00:06:25:da:af:73 |
| 2 | What is the 48-bit destination address in the Ethernet frame?  What device has this as its  Ethernet address? | 00:06:25:da:af:73 |
| 3 | Give the hexadecimal value for the two-byte Frame type field.  What upper layer protocol does this correspond to? | 0x0800; IPv4 |
| 4 | How many bytes from the very start of the Ethernet frame does the ASCII “G” in “GET” appear in the Ethernet frame? | 54 bytes |
| 5 | What is the value of the Ethernet source address?  What device has this as its Ethernet address? | 00:d0:59:a9:3d:68    The first-hop router to the destination address |
| 6 | What is the destination address in the Ethernet frame?  Is this the Ethernet address of your computer? | 00:06:25:da:af:73  It is my ethernet address. |
| 7 | Give the hexadecimal value for the two-byte Frame type field.  What upper layer protocol does this correspond to? | 0x0800; IPv4 |
| 8 | How many bytes from the very start of the Ethernet frame does the ASCII “O” in “OK” (i.e., the HTTP response code) appear in the Ethernet frame? | 67 bytes |
| 9 | Write down the contents of your computer’s ARP cache.  What is the meaning of each column value? | Column 1: Domain  Column 2: IP address  Column 3: MAC address  Column 4: Physical network interface name |
| 10 | What are the hexadecimal values for the source and destination addresses in the Ethernet frame containing the ARP request message? | Destination: ff:ff:ff:ff:ff:ff  Source: 00:d0:59:a9:3d:68 |
| 11 | Give the hexadecimal value for the two-byte Ethernet Frame type field.  What upper layer protocol does this correspond to? | ARP; 0x0806 |
| 12 | - |  |
| 13 | - |  |
| 14 | What are the hexadecimal values for the source and destination addresses in the Ethernet frame containing the ARP reply message? | Destination: 00:d0:59:a9:3d:68  Source: 00:06:25:da:af:73  The source of previous packet now becomes the destination.  After receiving the packet, I will know the router’s address. |
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