Gabriel Emerson   
ELEC 5220 - Lab 5  
10/26/21

**Setup and Questions**

Figure 1 shows the setup screen for exercise 1

![Graphical user interface

Description automatically generated]()

Figure 1

**For Exercise 2 this report is in respect to using computer A1, Host1.**

Figure 3 shows Exercise 2.1 part 2, showing the IP config command in command prompt.

![Text

Description automatically generated with medium confidence]()

Figure 3

Figure 4 and 5 show Exercise 2.1 part 3, pinging the other hosts IP address.

![A screenshot of a computer

Description automatically generated with medium confidence]()

Figure 4

![Table

Description automatically generated]()

Figure 5

Q1: Are the two “ping” packets successful?

**Yes both ways ping is successful**

Q2: In the ping request packet, what is the source IP address? What is the destination IP address?

**Source: 128.238.66.101**

**Destination: 128.238.66.102**

Q3: In the reply packet, what is the source IP address? What is the destination IP address?

**Source: 128.238.66.102**

**Destination: 128.238.66.101**

Q4: List all IP header fields in the request and reply packets (or take a screenshot of them).

**Figure 6 shows the screenshot for request and Figure 7 shows reply**

![Graphical user interface, application

Description automatically generated]()

Figure 6

![A picture containing text

Description automatically generated]()

Figure 7

Q5: What is the subnet ID for host 1?

**Network ID: 128.238.66.0**

Q6: What is the subnet ID for host 2?

**Network ID: 128.238.66.0**

Figure 8 and 9 show Exercise 2.2 part 2, pinging the host (after change in Sub Mask)

![A picture containing text, window

Description automatically generated]()

Figure 8

![Text

Description automatically generated]()

Figure 9

Q7: What is the subnet ID for each computer?

**Host 1: 128.238.66.96**

**Host 2: 128.238.66.112**

Q8: Are the two ping processes successful?

**Both are unsuccessful due to the change in Network ID (see Figure 8 above)**

Figure 10 shows the pinging of Host 2 from Host 1 in Exercise 2.3.

![Graphical user interface, application

Description automatically generated]()

Figure 10

Figure 11 shows Exercise 2.3, ping Host 2 with timeout

![Table

Description automatically generated]()

Figure 11

Figure 12 shows ping Host 1 from Host 2

Text

Description automatically generated

Figure 12

Figure 13 shows Exercise 2.3, ping Host 1 with failure

Table

Description automatically generated

Figure 13

Q9: What is the subnet ID for each computer?

**Host 1: 128.238.66.0**

**Host 2: 128.238.66.112**

Q10: Can Host 1 send the ping request? Is the “ping” process successful? Why?

**Yes the request can be sent, however, it is not successful and there is a timeout.**

Q11: Can Host 2 send the ping request? Is the “ping” process successful? Why?

**No. The request in not sent at all, hence, the ping process is unsuccessful.**