COSC 350 Assignment 4 Spring 2020

The link to submit this group assignment will remain open for as long as needed.

Please submit your answers in a one file named GroupNameA4 via Blackboard.

1. From the command prompt in Windows, run the command below:

**ipconfig /all**

Use the output from this command to answer each question below and put your answers in the file

GroupNameA4.

1. Write down the IPv4 address

192.168.1.4

1. Write down the subnet mask

255.255.255.0

1. The 32-bit IPv4 address has a network part (prefix) and a host part. Use the subnet mask to find how many bits out of the 32 bits in the address are in the network part.

2. Use Wireshark to open the file Http.cap that is posted on BB.

Use Wireshark **frame 11** (it is an HTTP packet) to answer all the questions below and put your answers in the file GroupNameA4.

1. Double click on the part of the frame labeled as IEEE 802.11 QoS Data.

a1) Write down the BSS Id

00:14:a5:cd:74:7b

a2) Of the three addresses labeled Receiver address, Transmitter address and Destination address, which address is the MAC address of the 802.11 access point?

Receiver address

1. Double click on the part of the frame labeled as Internet Protocol Version 4.

b1) Write down the Total Length of the IPv4 part of the packet.

141

b2) The IPv4 part of the packet has an IP header and an IP payload. The IP payload carries the IP data. How many bytes are in the IP payload?

121

1. Double click on the part of the frame labeled as Transmission Control Protocol.

c1) The value given by Wireshark for the TCP Sequence number is a relative sequence number. Look in the packet contents and write down the hex values of the 4 bytes that correspond to the actual TCP sequence number carried in the sequence number field in the TCP header.

34 fb 5c f9

c2) Write down the Window size value given by Wireshark

32851

c3) What is the relation between the Window size value and the Calculated window size value also given by Wireshark?

Window size refers to the number of bytes that can be sent in the given window.

The Calculated window size is the given window size multiplied by the scaling factor.