Part A

Scenario 1

Question 1

1153.3333

Question 2

1940

Scenario 2

Excel Sheet

Question 1

252.5634143

Question 2

505.1268286

Question 3

741.6902429

Question 4

978.2536571

Question 5

2243.6225

Question 6

3508.991343

Question 7

10366.1342

Question 8

11312.38786

Scenario 3

Question 1

1, 8

Question 2

2,3,4,5,6,7

Question 3

NS

Question 4

NS

Question 5

A

Part B

Question 1: What is the web browser being used by the sender?

Mozilla Firefox

Question 2: What is the web server software being used in the remote server?

Server: Microsoft-ISS 7.0

Question 3: Is protocol offloading being used at the client?

No it is not

Question 4: How many routers are there between the client and server?

8

Question 5: What is the raw TCP sequence number of

a) the packet initiating the TCP connection?

Sequence Number (raw): 3851697578

b) the acknowledgement from the server for the above packet?

Sequence Number (raw): 2747564191

Question 6: In frame 4, what are the values of the 8 TCP flags (CWR to FIN) as a single 8-digit binary number?

00011000

Question 7: In frame 4, the GET request is for a javascript file resource. What is the address of the web page that requested this javascript file resource?

http://a.bcd.com

Question 8: How long should the received javascript file be considered fresh?

110 seconds

Question 9: What is the initial value of the window scale shift count indicated by

a) the client?

7

b) the server?

5

Question 10: The GET packet from the client to the server has an advertised window size of 46. What is the true value window size in bytes?

5888 Bytes

Question 11: How many bytes are lost totally while tranmissing is indicated in the pcapfile?

1448

Question 12: How many duplicate acknowledgments are sent by the client regarding the missing bytes?

3

Question 13: In which frame is the lost frame retransmitted?

38

Question 14: In which frame does the receiver indicate that all missing frames have been received?

39

Question 15: From frame 1 to 3(inclusive), how many frames have incorrect checksum value?

0