Computer Networks
Lab Task #9
Saad Ahmad
20P-0051

Task

Question 1:

source port number: 60643
destination port number : 80

```
Transmission Control Protocol, Src Port: 60643, Dst Port: 80, Seq: 0, Len: 0
    Source Port: 60643
    Destination Port: 80
```

Question 2:

Sequence number (raw): 2682012317
The segment is as a SYN segment because the SYN flag is set to 1.

```
Sequence number: 0    (relative sequence number)
Sequence number (raw): 2682012317
[Next sequence number: 1    (relative sequence number)]
Acknowledgment number: 0
Acknowledgment number (raw): 0
1011 .... = Header Length: 44 bytes (11)
Flags: 0x002 (SYN)
    000. .... .... = Reserved: Not set
    ...0 .... .... = Nonce: Not set
    .... 0... .... = Congestion Window Reduced (CWR): Not set
    .... .0.. .... = ECN-Echo: Not set
    .... ..0. .... = Urgent: Not set
    .... ...0 .... = Acknowledgment: Not set
    .... .... 0... = Push: Not set
    .... .... .0.. = Reset: Not set
    .... .... ..1. = Syn: Set
    .... .... ...0 = Fin: Not set
```

Question 3:

The sequence number of the SYNACK segment sent by the server to the client computer in reply to the SYN is

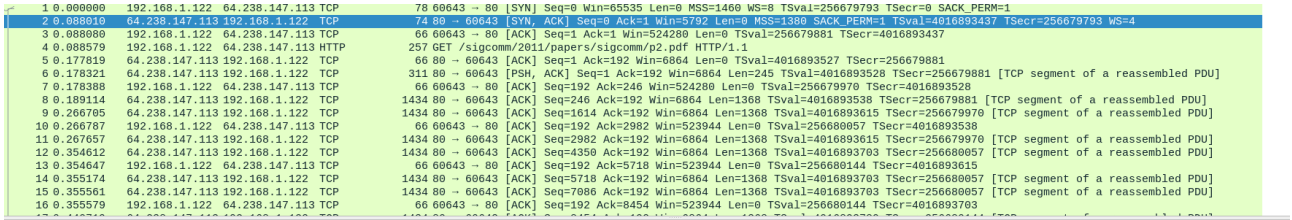
Sequence number (raw): 349487776

The value of the Acknowledgement field in the SYNACK segment is:

Acknowledgment number (raw): 2682012318

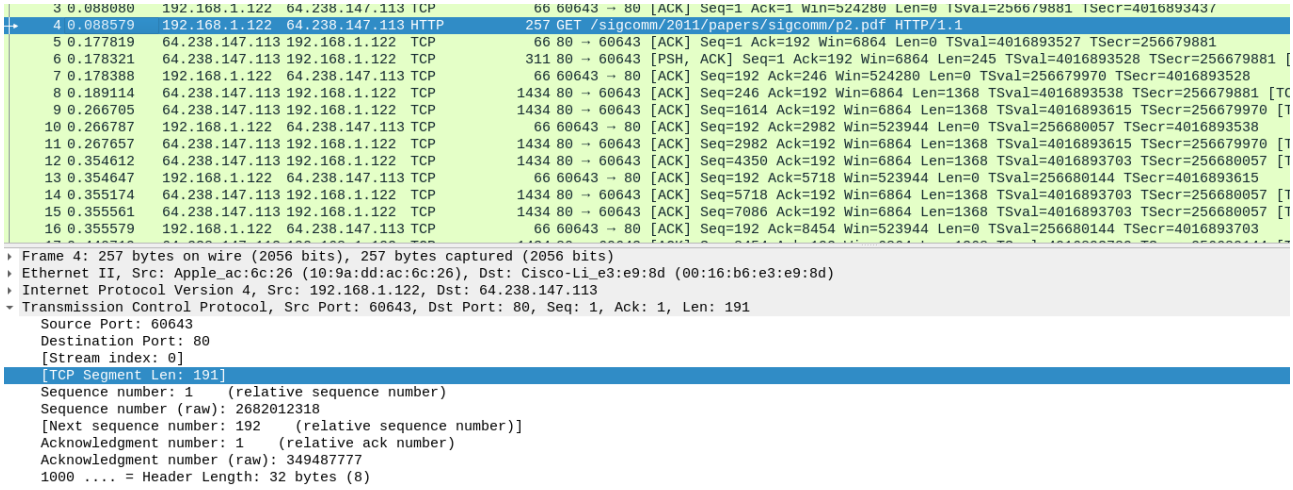
The server determine that value in such a way that receiver take the sequence number from the sender and increment it by 1 and send it back to the sender as acknowledgement number.

The segment is as a SYN, ACK segment because the SYN, ACK flags are set to 1.



Question 4:

Segment 1 length = 191
Segment 2 length = 0
Segment 3 length = 245
Segment 4 length = 0
Segment 5 length = 1368
Segment 6 length = 1368



Question 5:

No, there are no retransmitted segments in the trace file.