

3(b). The flag which is set to 1.

4(b). The SYN and ACK flags are both 1

4(d). It is the sequence number that followed the previous packets sequence number that was sent from `gaia.cs.umass.edu`

8(b). No, the receiver is never throttled as the buffer space is bigger than what is required for the packets being sent.

9. Yes, there are duplicate sequence numbers which indicates retransmitted packets.

15. The data was not sent in multiple packets which means it was not fragmented.

16. The IP protocol identification code

17. All the segments use IPV4 so the version will remain constant. Along with this the destination IP address as well as the header length since it is defined by the protocol.

18. The identification field is incremented by one each time.

19. ICMP

20. No

21. Yes

22. One would need to trace a UDP or TCP file transfer over the internet two times. Once during a higher stage of loadshedding and once in a lower stage. You could then compare the RTT of the data packets that were sent to determine the network speed difference.

23.