1) I’m using Stop-n-Go (or Ping-pong, same thing). I’m a receiver. I receive packet with id #3. What should my ack say? Just use a word or 5.

2) I’m using Stop-n-Go (or Ping-pong, same thing). I’m a sender. I send packet #12, and I get no ack at all! What could have caused this (pick zero or more):

a) Packet #12 was not received by the receiver

b) The Ack for packet #12 was not received by me

c) Packet #11 was not received by the receiver

d) The Ack for packet #11 was not received by me

3) One disadvantage of Stop-n-Go is …

4) I’m a receiver using Sliding Window. It’s the start of the transaction, and I get packets 1,2,3,4, and 6. When I get packet 6, do I send an ack? If so, what should it say. (There is no packet 0; packet 1 is the first one.)

5) Assume I’m using Sliding Window on a network with medium latency and medium bandwidth. There is some but minimal packet loss. Is sliding window reasonably efficient in this case?

a) Nope. I’d expect less than 50% efficiency

b) Ya, it will do OK. Especially if there are only a few lost packets.

c) It’s the best … better than Stop-n-Go and better than Selective Repeat.

6) As used on the real internet right now, how does Sliding Window set it’s timeout values?

a) Send a ping packet and see how long it takes

b) Ask the DNS server how far away the other host is, and then do math.

c) Just use a reasonable constant. All senders use the same constant, which has been tested.

d) Observe how long the acks take to return, and base your timeout on that.

7) I’m a receiver using Selective Repeat. It’s the start of the transaction, and I get packets 1,2,3,4, and 6. When I get packet 6, do I send an ack? If so, what should it say. (There is no packet 0; packet 1 is the first one.)

8) I’m using Selective Repeat. I’m a receiver. I get packet 1, and I send and ack for packet 1.

I get packet 2, and I send and ack for packet 2. I get packet 2 again. What’s one reasonable reason I received packet 2 the second time?

9) How big are IP numbers?

24 bits 24 bytes 48 bits 48 bytes anything else

10) I run the two programs below at the same time. Assume ‘sock’ is a connection between the two programs. What will happen?

len = read(sock, msg, 1000); len = read(sock, msg, 1000);

write(sock, “Bye”, 3); write(sock, “See Ya”, 6)

if (len > 0) { if (len > 0) {

msg[len] = 0; msg[len] = 0;

cout << msg << endl; cout << msg << endl;

} }

11) (Yes/No) If I send something using TCP, is it for sure guaranteed 100% to be received?

12) TCP Ports have the range

0-1023 (That’s 2^8-1) 0- 65537 (That’s 2^16-1) 0-4294967296 (That’s 2^32-1)

13) I want you to write a few lines of code. They should print ‘Bad’ if the first character of ‘buf’ is not a ‘2’ or a ‘3’.

14) When using SMTP as an email sender, what’s the first command you send? What’s the first command your program sent? (These should be the same thing!)

15) When using SMTP, what separates the email header (i.e. date, subject, to, from) from the email body (i.e. “Hey Jane. Vote for me. I’m awesome!”)

16) Does your email program work? Send an email from Santa to yourself, saying you want a good grade on the program. SHOW ME!!!!!