1. In this situation, a circuit switched network would be more appropriate. The major downfall of a circuit switched network is that the path for data to travel must be reserved even if no data is actively being transferred across it. In this scenario, not only is a segment of data being transferred at a short, fixed interval, but it will be continuing for a relatively long period of time. These aspects fit a circuit switched network very well.

2. Because the sum of all of the traffic on the network is less than the capacity of each link, there is no need for congestion control. Congestion builds up when the capacity of a link is less than the amount of data it is trying to transmit. Congestion control systems counteract this build up through various means such as re-routing. Since that isn't the case in this network, no congestion control is necessary.

3. The amount of time a single bit takes between creation and the time it is decoded is 70.217 ms. This value can be calculated by summing the time to encode and decode the bit from its position within the packet (2049/32 000); the time it takes to place the packet onto the transmission medium (2048/11 000 000); and the propagation delay of the transmission medium.

4. Since the queuing delay of any packet *n* can be calculated as (n-1) * (L/R), we can calculate the average delay by summing the *n*th delay up to *N* and then dividing by the number of packets *N*. Since the queuing delay of the 1st packet is 0, the average queuing delay is [(N - 1) * L] / [2 * R]