COM-208: Computer Networks - Quiz 1 (A)

Name:

1. The transmission delay is:
   (a) the same thing as the propagation delay.
   (b) the amount of time it takes for one bit to get from the beginning to the end of a link.
   (c) the amount of time it takes to push all bits of a packet into the link. *(Correct)*

2. A large file is being transmitted over two consecutive links: one of rate R_1 and one of rate $R_2 > R_1$. Ignore queuing and processing delays. The average throughput is:
   (a) R_1 *(Correct)*
   (b) $R_2 - R_1$
   (c) $\frac{R_1+R_2}{2}$

3. In a Denial-of-Service attack against a pair of communicating hosts, the goal is to:
   (a) interrupt the communication between the two hosts. *(Correct)*
   (b) listen in the exchanged messages on the communication.
   (c) pretend to be one of the hosts.

4. Packet switching is more efficient than connection switching in terms of resource use, because:
   (a) it uses fewer switches than connection switching.
   (b) it uses better TCP congestion control than connection switching.
   (c) resources are shared on a packet-by-packet basis only among the users that have data to send. *(Correct)*

5. One similarity between the Digital Subscriber Line (DSL) and the Cable internet access is that:
   (a) both are shared broadcast media.
   (b) both use fiber-to-the-home technology.
   (c) both have two different data streams: the downstream and the upstream. *(Correct)*

6. Suppose that we want to transmit packet p. Which of the following depends on the size of p?
   (a) The queuing delay that p experiences.
   (b) The transmission delay that p experiences. *(Correct)*
   (c) The propagation delay that p experiences.

7. We use layers because:
   (a) they always improve performance.
   (b) they reduce complexity and improve flexibility. *(Correct)*
   (c) Both of the above.

8. The following is true about the queuing delay experienced by a packet that arrives at a buffer:
   (a) It depends on the bit arrival rate and traffic arrival pattern (burstiness) observed at the buffer. *(Correct)*
   (b) It is always zero, as long as the bit arrival rate of the buffer is smaller than the bit departure rate.
   (c) It is always insignificant compared to the transmission and propagation delays experienced by the packet.

9. The forwarding table, that is contained in a packet switch, is used for:
   (a) storing packets before forwarding them to one of the output links.
   (b) storing metadata that helps the switch decide where to send the packets. *(Correct)*
   (c) storing packets that are dropped from a link queue.

10. Two regional ISPs can exchange traffic directly between each other instead of paying a tier-1 ISP, in order to save costs. This arrangement is called:
    (a) Internet Exchange Point
    (b) Peering *(Correct)*
    (c) Multi-homing

COM-208: Computer Networks - Quiz 1 (B)

Name:

1. One similarity between the Digital Subscriber Line (DSL) and the Cable internet access is that:
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