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

Name:
SCIPER:

1. Would you connect your house to the Internet through a 18Mbps DSL connection or a 20Mbps Cable connection?

   (a) The DSL connection because it will not be shared with any other houses.
   (b) The Cable connection because it offers a higher transmission rate.
   (c) I don't have enough information to answer. *(Correct)*

2. When two ISPs have a customer/provider relationship, that necessarily implies that:

   (a) They have a peering agreement with each other.
   (b) One of them is paying the other for Internet connectivity. *(Correct)*
   (c) They are connected to each other through a direct physical connection.

3. How does a link-layer switch differ from a network-layer switch?

   (a) A link-layer switch can always handle more packets.
   (b) They decide how to forward a packet based on different headers. *(Correct)*
   (c) They do not differ in any way.

4. What is the relationship between the transmission and propagation delay experienced by a packet on a link?

   (a) They always have the same value.
   (b) They may have the same value or one may be bigger than the other depending on the situation. *(Correct)*
   (c) The transmission delay is typically much bigger.

5. A link of transmission rate R feeds packets to a queue, which feeds another link of transmission rate R. There is no processing delay and no other traffic. Packets that traverse the queue will experience:

   (a) 0 transmission delay.
   (b) 0 queuing delay. *(Correct)*
   (c) Both of the above.

6. How may we reduce the queuing delay experienced by packets at a store-and-forward switch?

   (a) By decreasing the processing delay of the switch.
   (b) By increasing the transmission rate of the switch's outgoing links.
   (c) Both of the above. *(Correct)*

7. Packets P_1 and P_2 traverse the same path. P_2 is bigger than P_1. P_2 definitely experiences:

   (a) Bigger transmission delays. *(Correct)*
   (b) Bigger queuing delays.
   (c) The same end-to-end (total) delay.

8. End-system A sends a large file to end-system B over a single link of transmission rate R bps. The average throughput is:

   (a) Exactly R.
   (b) Larger than R, but the difference is typically insignificant.
   (c) Smaller than R, but the difference is typically insignificant. *(Correct)*

9. A switch that implements packet switching:

   (a) Never drops a packet.
   (b) Never drops a packet when it has the resources to treat it. *(Correct)*
   (c) Never drops a packet when that packet belongs to an established connection.

10. You want to disrupt the communication between end-systems A and B. You are not on the path between them and you cannot send traffic to either of them. What type of attack can you use?

    (a) A denial-of-service attack. *(Correct)*
    (b) An eavesdropping attack.
    (c) An impersonation attack.

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

Name:
SCIPER:

1. A link of transmission rate R feeds packets to a queue, which feeds another link of transmission rate R. There is no processing delay and no other traffic. Packets that traverse the queue will experience:

   (a) 0 transmission delay.
   (b) 0 queuing delay. *(Correct)*
   (c) Both of the above.

2. Packets P_1 and P_2 traverse the same path. P_2 is bigger than P_1. P_2 definitely experiences:

   (a) The same end-to-end (total) delay.
   (b) Bigger queuing delays.
   (c) Bigger transmission delays. *(Correct)*

3. When two ISPs have a customer/provider relationship, that necessarily implies that:

   (a) One of them is paying the other for Internet connectivity. *(Correct)*
   (b) They have a peering agreement with each other.
   (c) They are connected to each other through a direct physical connection.

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   (a) By increasing the transmission rate of the switch's outgoing links.
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