

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

Name:

- Traffic is arriving at a queue with average rate  $A$  and departing through an outgoing link with transmission rate  $R > A$ . The queuing delay will therefore depend on:
  - the nature/burstiness profile of the arriving traffic.
  - the size of the buffer.
  - Both of the above. *(Correct)*
- In bandwidth flooding, the attacker:
  - sends a large number of packets to the targeted host. *(Correct)*
  - is a passive receiver of the sender's messages.
  - establishes a large number of connections at the targeted host.
- We can increase the average throughput between a source and a destination by increasing:
  - the amount of data sent by the source.
  - the transmission rate of the bottleneck link. *(Correct)*
  - the rate at which the application layer of the source generates data.
- A network administrator has decided to reduce by 50% the lengths of the links among all switches of the network. What will be the result of such a choice?
  - The end-to-end transmission delays will be reduced by 50%.
  - The end-to-end propagation delays will be reduced by 50%. *(Correct)*
  - None of the above.
- A forwarding table is used by a switch in order to:
  - store entire packets before they are forwarded.
  - store information about where to forward the packets. *(Correct)*
  - fast-forward specific packets in case of congestion.
- A packet sequence arriving at a switch experiences long queuing delays. How could we reduce these delays?
  - By increasing the size of the buffer/queue at the switch.
  - By increasing the transmission rate of the outgoing link(s) of the switch. *(Correct)*
  - By increasing the transmission rate of the inbound link(s) of the switch.
- Which of the following is true?
  - With connection switching, data is lost with higher probability than in packet switching.
  - With connection switching, the end-to-end delays can be predicted in advance. *(Correct)*
  - With connection switching, the end-to-end delays are always very small.
- In the Internet, packet switching is preferred to connection switching, because:
  - it offers better performance.
  - it can support more users at the same cost. *(Correct)*
  - Both of the above.
- During rush hours, DSL performs generally better than Cable, because:
  - DSL always offers higher downstream and upstream speeds.
  - DSL uses twisted-pair copper technology.
  - DSL is not a shared medium like Cable. *(Correct)*
- An IXP is:
  - a special type of ISP.
  - a meeting point where only regional ISPs can peer together.
  - a meeting point where ISPs of any type can peer together. *(Correct)*

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

Name:

1. A forwarding table is used by a switch in order to:
  - (a) fast-forward specific packets in case of congestion.
  - (b) store entire packets before they are forwarded.
  - (c) store information about where to forward the packets. *(Correct)*
2. During rush hours, DSL performs generally better than Cable, because:
  - (a) DSL uses twisted-pair copper technology.
  - (b) DSL is not a shared medium like Cable. *(Correct)*
  - (c) DSL always offers higher downstream and upstream speeds.
3. In the Internet, packet switching is preferred to connection switching, because:
  - (a) it can support more users at the same cost. *(Correct)*
  - (b) it offers better performance.
  - (c) Both of the above.
4. A packet sequence arriving at a switch experiences long queuing delays. How could we reduce these delays?
  - (a) By increasing the size of the buffer/queue at the switch.
  - (b) By increasing the transmission rate of the outgoing link(s) of the switch. *(Correct)*
  - (c) By increasing the transmission rate of the inbound link(s) of the switch.
5. In bandwidth flooding, the attacker:
  - (a) establishes a large number of connections at the targeted host.
  - (b) is a passive receiver of the sender's messages.
  - (c) sends a large number of packets to the targeted host. *(Correct)*
6. We can increase the average throughput between a source and a destination by increasing:
  - (a) the transmission rate of the bottleneck link. *(Correct)*
  - (b) the amount of data sent by the source.
  - (c) the rate at which the application layer of the source generates data.
7. An IXP is:
  - (a) a special type of ISP.
  - (b) a meeting point where ISPs of any type can peer together. *(Correct)*
  - (c) a meeting point where only regional ISPs can peer together.
8. Which of the following is true?
  - (a) With connection switching, the end-to-end delays can be predicted in advance. *(Correct)*
  - (b) With connection switching, data is lost with higher probability than in packet switching.
  - (c) With connection switching, the end-to-end delays are always very small.
9. A network administrator has decided to reduce by 50% the lengths of the links among all switches of the network. What will be the result of such a choice?
  - (a) The end-to-end transmission delays will be reduced by 50%.
  - (b) The end-to-end propagation delays will be reduced by 50%. *(Correct)*
  - (c) None of the above.
10. A queue has an incoming link with transmission rate  $A$  and an outgoing link with transmission rate  $R > A$ . The queuing delay will therefore depend on:
  - (a) the nature/burstiness profile of the arriving traffic.
  - (b) the size of the buffer.
  - (c) Both of the above. *(Correct)*