

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

Name:
SCIPER:

1. DSL and Cable are
 - (a) different types of packet switches.
 - (b) different technologies for connecting households to the Internet.
 - (c) different layers of the Internet architecture.
2. We say that two Internet service providers (ISPs) are “peers” when
 - (a) they are connected to the same Tier 1 ISP.
 - (b) they are connected to the same Internet eXchange Point (IXP).
 - (c) exchange traffic without necessarily paying each other.
3. The Internet architecture uses layers because they
 - (a) improve performance.
 - (b) reduce complexity.
 - (c) prevent denial-of-service attacks.
4. The Internet uses packet switching because
 - (a) it is cheaper and simpler to implement than connection switching.
 - (b) it offers better performance than connection switching.
 - (c) it offers more predictable performance than connection switching.
5. The Internet relies on statistical multiplexing. This means that:
 - (a) Packets that are sent over the Internet reach their destination with some probability.
 - (b) It is unlikely that all users that share a resource will want to use it at the same time.
 - (c) It is unlikely that all switches and links will fail at the same time.
6. Assume we empty the Internet from all traffic. Then, end-system A sends one packet to end-system B. This packet will experience
 - (a) 0 transmission delay.
 - (b) 0 queuing delay.
 - (c) 0 processing delay.
7. End-systems A and B are directly connected through a single link. Doubling the transmission rate of this link will
 - (a) halve the propagation delay from A to B.
 - (b) double the propagation delay from A to B.
 - (c) approximately double the average throughput from A to B.
8. End-systems A and B are directly connected through two separate parallel links of the same type. Removing one link will
 - (a) halve the propagation delay from A to B.
 - (b) halve the average throughput from A to B.
 - (c) double the average throughput from A to B.
9. Assume zero processing delays. To increase the average throughput between end-systems A and B, we must
 - (a) increase the transmission rate of the bottleneck link between A and B
 - (b) reduce the propagation delay of the bottleneck link between A and B.
 - (c) increase the size of the queue that is at the end of the bottleneck link between A and B.
10. What type of attack will you launch to prevent users from around the world from accessing the EPFL website?
 - (a) An eavesdropping attack.
 - (b) An impersonation attack.
 - (c) A denial-of-service attack.

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

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- End-systems A and B are directly connected through a single link. Doubling the transmission rate of this link will
 - double the propagation delay from A to B.
 - halve the propagation delay from A to B.
 - approximately double the average throughput from A to B.
- DSL and Cable are
 - different types of packet switches.
 - different layers of the Internet architecture.
 - different technologies for connecting households to the Internet.
- The Internet relies on statistical multiplexing. This means that:
 - It is unlikely that all users that share a resource will want to use it at the same time.
 - Packets that are sent over the Internet reach their destination with some probability.
 - It is unlikely that all switches and links will fail at the same time.
- End-systems A and B are directly connected through two separate parallel links of the same type. Removing one link will
 - double the average throughput from A to B.
 - halve the average throughput from A to B.
 - halve the propagation delay from A to B.
- Assume we empty the Internet from all traffic. Then, end-system A sends one packet to end-system B. This packet will experience
 - 0 transmission delay.
 - 0 queuing delay.
 - 0 processing delay.
- The Internet architecture uses layers because they
 - reduce complexity.
 - improve performance.
 - prevent denial-of-service attacks.
- We say that two Internet service providers (ISPs) are “peers” when
 - they are connected to the same Tier 1 ISP.
 - exchange traffic without necessarily paying each other.
 - they are connected to the same Internet eXchange Point (IXP).
- What type of attack will you launch to prevent users from around the world from accessing the EPFL website?
 - An impersonation attack.
 - An eavesdropping attack.
 - A denial-of-service attack.
- Assume zero processing delays. To increase the average throughput between end-systems A and B, we must
 - reduce the propagation delay of the bottleneck link between A and B.
 - increase the transmission rate of the bottleneck link between A and B
 - increase the size of the queue that is at the end of the bottleneck link between A and B.
- The Internet uses packet switching because
 - it is cheaper and simpler to implement than connection switching.
 - it offers better performance than connection switching.
 - it offers more predictable performance than connection switching.