

COM-208: Computer Networks - Quiz 2 (A)

Name:

1. Assume that DNS uses TCP as the transport layer protocol. Which of the following is true:
 - (a) We no longer need root and top-level DNS servers.
 - (b) DNS queries take longer to answer, since TCP has to first establish a connection. *(Correct)*
 - (c) Both of the above.
2. We say that TCP is a “connection-oriented protocol” because:
 - (a) The sender and the receiver are connected through network links that use circuit-switching.
 - (b) TCP maintains state about the communicating processes. *(Correct)*
 - (c) Both of the above.
3. A web client contacts a web server either directly or through a proxy. Which of the following is true:
 - (a) Loading the content is significantly faster through the proxy.
 - (b) Using the proxy does not significantly improve performance.
 - (c) Either of the above can be true, depending on the situation. *(Correct)*
4. Which transport layer protocol does HTTP use?
 - (a) TCP. *(Correct)*
 - (b) UDP.
 - (c) Neither of the above. HTTP is itself a transport layer protocol.
5. When the user types the URL of a web page in the browser, the type of the first HTTP request the browser makes is:
 - (a) POST
 - (b) GET *(Correct)*
 - (c) DIG
6. The following is true about HTTP cookies:
 - (a) They are a mechanism used by web servers to link subsequent HTTP requests to the same client.
 - (b) They are used to violate user privacy.
 - (c) Both of the above. *(Correct)*
7. You access a web page that consists of 1 HTML file and 3 pictures, all stored on the same server. Suppose your browser uses a single non-persistent connection, and that DNS resolution has already been completed. What is the minimum number of round-trip-times needed to display the web page?
 - (a) 4 RTTs.
 - (b) 5 RTTs.
 - (c) 8 RTTs. *(Correct)*
8. A client-server (CS) architecture is different from a peer-to-peer (P2P) architecture in that:
 - (a) CS always achieves better performance than P2P, independent from the number of users.
 - (b) CS typically relies on dedicated infrastructure for running the server processes. *(Correct)*
 - (c) CS never poses a threat on user privacy, whereas P2P always does.
9. A web browser needs to contact www.epfl.ch. The minimum number of DNS requests sent is:
 - (a) 0 *(Correct) - 0 if the result is already cached*
 - (b) 1
 - (c) 3
10. A host is part of a P2P system. In order to know which other peers have content X, the host will:
 - (a) Ask a central entity (tracker).
 - (b) Query a distributed hash table (DHT).
 - (c) Both of the above are valid options. *(Correct)*

COM-208: Computer Networks - Quiz 2 (B)

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1. You access a web page that consists of 1 HTML file and 3 pictures, all stored on the same server. Suppose your browser uses a single non-persistent connection, and that DNS resolution has already been completed. What is the minimum number of round-trip-times needed to display the web page?
 - (a) 8 RTTs. *(Correct)*
 - (b) 4 RTTs.
 - (c) 5 RTTs.
2. A host is part of a P2P system. In order to know which other peers have content X, the host will:
 - (a) Query a distributed hash table (DHT).
 - (b) Ask a central entity (tracker).
 - (c) Both of the above are valid options. *(Correct)*
3. Which transport layer protocol does HTTP use?
 - (a) UDP.
 - (b) TCP. *(Correct)*
 - (c) Neither of the above. HTTP is itself a transport layer protocol.
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 - (a) CS never poses a threat on user privacy, whereas P2P always does.
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5. Assume that DNS uses TCP as the transport layer protocol. Which of the following is true:
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 - (b) We no longer need root and top-level DNS servers.
 - (c) Both of the above.
6. We say that TCP is a “connection-oriented protocol” because:
 - (a) TCP maintains state about the communicating processes. *(Correct)*
 - (b) The sender and the receiver are connected through network links that use circuit-switching.
 - (c) Both of the above.
7. A web browser needs to contact www.epfl.ch. The minimum number of DNS requests sent is:
 - (a) 3
 - (b) 1
 - (c) 0 *(Correct) - 0 if the result is already cached*
8. When the user types the URL of a web page in the browser, the type of the first HTTP request the browser makes is:
 - (a) DIG
 - (b) GET *(Correct)*
 - (c) POST
9. The following is true about HTTP cookies:
 - (a) They are used to violate user privacy.
 - (b) They are a mechanism used by web servers to link subsequent HTTP requests to the same client.
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