

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

Name:

1. A client-server (CS) architecture is different from a peer-to-peer (P2P) architecture in that:
 - (a) CS always achieves better performance than P2P, independently 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.
2. TCP offers the following services:
 - (a) Reliable message delivery. *(Correct)*
 - (b) Guaranteed minimum data throughput.
 - (c) Both of the above.
3. We say that TCP is a “connection-oriented protocol” because:
 - (a) It never drops any messages.
 - (b) It maintains state about the communicating processes. *(Correct)*
 - (c) The sender and the receiver are connected through network links.
4. You use your web browser to access a web page that consists of a base file and one picture, both stored in the same web server. To obtain all the content of the web page, your web browser...
 - (a) will have to send one PUT request to the web server.
 - (b) will have to send one GET request to the web server, if it is using a persistent TCP connection.
 - (c) will have to send two GET requests to the web server. *(Correct)*
5. The following is true about HTTP cookies:
 - (a) They link subsequent HTTP requests to the same web client. *(Correct)*
 - (b) They are used only by web proxy servers (web caches).
 - (c) They are used only with persistent TCP connections.
6. The following is true about web caching:
 - (a) It generally reduces the delay experienced by web clients to access web pages. *(Correct)*
 - (b) It improves performance, but it always serves stale (old) data.
 - (c) It requires the use of HTTP cookies.
7. The Domain Name Service (DNS) performs the following function:
 - (a) Translates URLs (like `http://www.epfl.ch`) to process addresses (like `129.56.98.99:80`).
 - (b) Translates names (like `www.epfl.ch`) to IP addresses (like `129.56.98.99`). *(Correct)*
 - (c) Both of the above.
8. An attacker may negatively impact DNS performance in the following ways:
 - (a) By poisoning the caches of DNS servers.
 - (b) By launching a denial-of-service attack against the root DNS servers.
 - (c) Both of the above. *(Correct)*
9. Peer-to-peer (P2P) file sharing scales better than client-server file sharing because:
 - (a) The more peers are interested in a file, the more peers contribute to its distribution. *(Correct)*
 - (b) Peer processes usually run on better-equipped machines than client and server processes.
 - (c) The transmission rate between peers is usually higher than the one between clients and servers.
10. In a P2P file-sharing system, a peer may obtain the IP addresses of the peers that have a certain content:
 - (a) From a server (tracker).
 - (b) From the peers, with the help of a Distributed Hash Table (DHT).
 - (c) Both of the above. *(Correct)*