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.
   (c) CS never poses a threat on user privacy, whereas P2P always does.
2. TCP offers the following services:
   (a) Reliable message delivery.
   (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.
   (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.
5. The following is true about HTTP cookies:
   (a) They link subsequent HTTP requests to the same web client.
   (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.
   (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).
   (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.
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.
   (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.