

25-Summer-CSE421-1

Quiz 1-B

Marks: 15

Time: 20 mins

Name: .

ID:

Serial:

1. An international company has employees across multiple continents. No matter where they're located, employees can access internal applications, participate in video calls, and share files across different countries. The connection speed might vary depending on their location, but everyone is connected to the same resources regardless of geography. Identify if it's a PAN, LAN, MAN or WAN. [3]
2. Alice is on a video call with Bob. Help Alice, as the sender, traverse the layers as per the OSI model. Just write the letters in sequence. [5]
 - a. Frames video data with MAC addresses to direct it across each network hop.
 - b. Encrypts and compresses video data for secure transmission.
 - c. Transmits the video data as signals over the network medium.
 - d. Ensures that video packets arrive in sequence and are reassembled.
 - e. Alice's video call app processes and displays the video data.
 - f. Manages the live session between Alice and Bob for the duration of the call.
 - g. Routes video data using IP addresses to reach Bob's device.
3. When users connect to a central server to retrieve and store data, like in email services, which network architecture is being utilized? [3]
4. Given a scenario where the average Access delay is 15ms whereas the overall internet delay is 998ms. Calculate the average delay if LAN delay to proxy server 1 is 50ms whereas the LAN delay to proxy server 2 is 40ms. You can assume each proxy server handles 50% of the requests each. [4]