**CompTIA A+**

To watch the below video, you need to right click on the Hyperlink just below the highlighted task in red color and select the Open Hyperlink option. It will take you to the YouTube where you can watch the concerned video.

You are required to watch the video and answer the Questions asked below.

You need to type answers in the row indicated with “Ans.”

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| **TCP versus UDP**  <https://drive.google.com/file/d/14P4WzDJRv3f9krNEvZvod_pbzg0O08Tm/view?usp=sharing> | |
| 1 | TCP stands for? |
| Ans. | Transmission Control Protocol |
| 2 | UDP stands for? |
| Ans. | User Datagram Protocol (UDP) refers to a protocol used for communication throughout the internet. |
| 3 | What is TCP? |
| Ans. | TCP meaning Transmission Control Protocol, |
| 4 | What is UDP? |
| Ans. | ser Datagram Protocol (UDP) refers to a protocol used for communication throughout the internet. It is specifically chosen for time-sensitive applications like gaming, playing videos, or Domain Name System (DNS) |
| 5 | Which is reliable to send information UDP or TCP |
| Ans. | he main difference between TCP (transmission control protocol) and UDP (user datagram protocol) is that TCP is a connection-based protocol and UDP is connectionless. While TCP is more reliable, it transfers data more slowly. UDP is less reliable but works more quickly. |
| 6 | What are the services TCP provides? |
| Ans. | TCP provides reliable stream delivery of data between Internet hosts. Like UDP, TCP uses Internet Protocol, the underlying protocol, to transport datagrams, and supports the block transmission of a continuous stream of datagrams between process ports. Unlike UDP, TCP provides reliable message delivery. |
| 7 | Write down some points about UDP? |
| Ans. | ommunications protocol for time-sensitive applications like gaming, playing videos, or Domain Name System (DNS) lookups. UDP results in speedier communication because it does not spend time forming a firm connection with the destination before transferring the data. |
| 8 | Do TCP track the data that go through it |
| Ans. | How does TCP track data?  TCP uses a sequence number to identify each byte of data. The sequence number identifies the order of the bytes sent from each computer so that the data can be reconstructed in order, regardless of any out-of-order delivery that may occur. |
| 9 | Do UDP track data that go through it? |
| Ans. | UDP is also known as the unreliable data protocol. There is no tracking as such in UDP. You could use src and dst IP/Port combo for tracking but not sure what you would achieve out of it. The answer to your second question, that data may not be received in order it was sent it CORRECT |
| 10 | Why we use UDP? |
| Ans. | ser Datagram Protocol (UDP) is a communications protocol for time-sensitive applications like gaming, playing videos, or Domain Name System (DNS) lookups. UDP results in speedier communication because it does not spend time forming a firm connection with the destination before transferring the data. |
| 11 | What is window size in TCP? |
| Ans. | The TCP window is the maximum number of bytes that can be sent before the ACK must be received. If the network is unreliable, it's better to keep the window small. This way you don't have to retransmit as much data if there's a problem. But if the network is reliable, then the window can be quite large. |
| 12 | What is Acks Number in TCP? |
| Ans. | The acknowledgment number indicates which byte in the stream is expected next and thus which bytes have been received. This enables the original sender to determine which of its sent segments have been received and which ones need retransmitting. |
| 13 | Why TCP uses three way handshakes? |
| Ans. | CP uses a three-way handshake to establish a reliable connection. The connection is full duplex, and both sides synchronize (SYN) and acknowledge (ACK) each other |