

1. Define the concept of layer and protocol.
- 2.Explain the concepts of connection oriented and connectionless communication.
- 3.Explain propagation delay.
- 4.Explain the transmission time.

Q1

Layer : is set of task and they offer service to up level .
Protocol : is set of rules that governs communication .

Q2

Connection-Oriented means that when devices communicate,they perform handshaking to set up an end-to-end connection.

Connectionless means that no effort is made to set up a dedicated end-to-end connection.

Q3

propagation delay is the amount of time it takes for the head of the signal to travel from the sender to the receiver.It can be computed as the ratio between the link length and the propagation speed over the specific medium.

Q4

transmission time, is the amount of time from the beginning until the end of a message transmission. In the case of a digital message, it is the time from the first bit until the last bit of a message has left the transmitting node. The packet transmission time in seconds can be obtained from the packet size in bit and the bit rate in bit/s