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Computer Networking

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1. 0.038175 seconds

(d)/(s) + (L)/(R)

The delay depends on both packet length and transmission rate

1. Question 2
   1. (File Seize)\*500kbps + (File Seize)\*20Mbps + (File Seize)\*1Mbps
   2. 9.66399 seconds
   3. 19.3481 seconds
2. Question 3
   1. 360 minutes
   2. 288 minutes
3. Question 4
   1. 0.002778 Seconds for packet transmission
   2. 0.00351 Seconds for packet transmission and decoding
4. Question 5
   1. This is due to the fact that TCP has a high level of reliability, while transmission time is less important
5. Question 6
   1. SMTP sends message to sender’s mail server
   2. Then transferred to receiver’s mail server
   3. POP3 Server takes over
   4. User declares user name and password
   5. Server confirms credentials
   6. Transactions
      1. User can list messages
      2. Retrieve message by number
      3. Delete message
6. Chapter 7
   1. They can have the same name, however, the naming service is DNS, which can alias the mail server
7. Question 8
   1. This is because TCP sends verified messages so it needs a server to be present in order to complete its transmission
   2. UDP is best effort, if a message is not received properly, the system will continue to transmit
8. Question 9
   1. Application layer
      1. DNS is one service that will be used to identify which server to connect to
   2. Transportation layer
      1. ACK will be used to acknowledge packets
      2. Congestion avoidance will be used to ensure efficient transfer of data
      3. SPX or sequenced packet exchange
      4. Depending on the page Structures Stream Transport could be used
      5. UDP will be used
9. Question 10
   1. 3874
   2. Sat, 10 Dec2005 18:27:46
   3. HTTP/