Computer communication Networks

Spring 2016

(1) Categorize the options based on whether they describe TCP or UDP

| reliable |
| no flow control |
| reassembles messages at destination host |
| re-sends anything not received |
| does not reassemble incoming messages |
| unreliable |
| connectionless |
| connection-oriented |

TCP - Transmission Control Protocol

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UDP - User Datagram Protocol

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(2) At the transport layer, which of the following controls in used to avoid a transmitting host overflowing the buffers of a receiving host
   a. Best effort
   b. Encryption
   c. Flow control
   d. Compression
   e. Congestion avoidance

(3) During data transfer, what are the main responsibilities of the receiving host? (choose two)
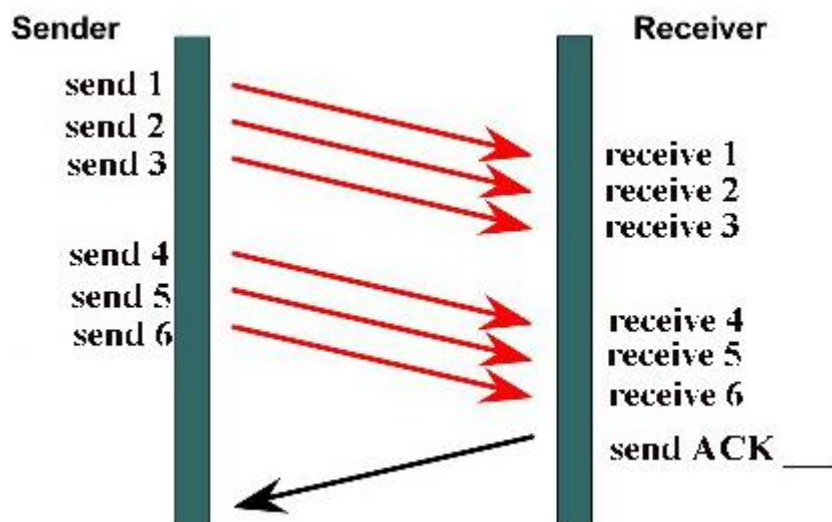   a. Throughput
   b. Encapsulation
   c. Acknowledgment
   d. Bandwidth
   e. Segmentation
   f. Reassembly

(4) At which layer of the TCP/IP model does TCP operate?
   a. Session
   b. Transport
   c. Network
   d. Data link

(5) What determines how much data a sending station running TCP/IP can transmit before it must receive an acknowledgment

    a. Segment size
    b. Transmission rate
    c. Bandwidth
    d. Window size
    e. Sequence number

(6) What is the purpose of the sequence number in the TCP header?

    a. Reassemble the segments into data
    b. Identify the application layer protocol
    c. Identify the number of the next expected byte
    d. Show the maximum number of byte allowed during a session

(7) Which acknowledgment number should be sent by the receiver shown in the figure below?

Sender

send 1
send 2
send 3

send 4
send 5
send 6

Receiver

receive 1
receive 2
receive 3

receive 4
receive 5
receive 6

send ACK ____

    (a) 3
    (b) 4
    (c) 6
    (d) 7
    (e) 9
    (f) 12

(8) What is the purpose of the TCP/UDP port numbers?

    a. Indicate the beginning of a 3 way handshake
    b. Reassemble the segments into the correct order
    c. Identify the number of data packets that may be sent without acknowledgment
    d. Track different conversation crossing the network at the same time