Spørsmål 1

10 poeng | Lagre svar

1.a) Transport-layer protocols can only provide reliable data transfer over reliable networks.

- ○ Sann
- ◉ Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 2

10 poeng | Lagret

1.b) Applications can only have reliable data transfer if the transport-layer protocol used provide it.

- ○ Sann
- ◉ Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 3

10 poeng ✔ Lagret

1.c) UDP does not establish a connection between endpoints.

- (•) Sann
- ( ) Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 4

10 poeng Lagre svar

1.d) In TCP, properties of ACKs received are used in congestion control.

- [x] Sann
- [ ] Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 5

10 poeng | Lagre svar

1.e) It is impossible to have Congestion Control when using UDP.

- ○ Sann
- ◉ Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 6

10 poeng ✔ Lagret

2.a) Suppose Host A has a UDP socket with port number 25565, and Hosts B and C both send a UDP segment with destination port number 25565 to Host A. Host A cannot know that these segments came from two different hosts.

- ○ Sann
- ◉ Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 7

10 poeng ✔ Lagret

2.b) TCP uses only the source and destination port header fields to determine what socket a segment should be sent to.

- ○ Sann
- ◉ Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 8

10 poeng | Lagre svar

2.c) A TCP sender window can contain acknowledged data as well as unacknowledged data.

- (•) Sann
- ( ) Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 9

10 poeng | Lagre svar

2.d) Host A is sending a large file to Host B over TCP. Host A cannot send more unacknowledged data than what fits in the receive window of Host B.

- (•) Sann
- ( ) Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 10

10 poeng ✔ Lagret

2.e) With the Go-Back-N protocol, it is not possible to receive an ACK for a packet that is outside one's current sending window.

- ○ Sann
- ◉ Usann

⚠ Hvis du flytter til et annet spørsmål, lagres denne tilbakemeldingen.

Spørsmål 11

10 poeng ✔ Lagret

Host A and Host B have established a connection using TCP. Host A sends two segments of data to Host B. The first has sequence number 81 and the second has sequence number 121.

3.1) How much data was in the first segment?

- ○ Cannot be decided from the given information.
- ◉ 40 bytes.
- ○ 81 bytes.
- ○ 121 bytes.

Spørsmål 12

10 poeng

Lagre svar

Host A and Host B have established a connection using TCP. Host A sends two segments of data to Host B. The first has sequence number 81 and the second has sequence number 121.

3.b) How much data was in the second segment?

- [x] Cannot be decided from this given information.
- [ ] 40 bytes.
- [ ] 81 bytes.
- [ ] 121 bytes.

Spørsmål 13

10 poeng ✔ Lagret

Consider the connection in task 3. and suppose the hosts decided not to use selective repeat, but they are using go-back-N. Now, Host B has received and acknowledged all the bytes up to 150. The last acknowledgment it sent had the acknowledgment number 151.

4.a) Host B receives a new segment with length 30 bytes, and sequence number 181. What acknowledgment number should Host B put in its ACK for that segment?

- (•) 151
- ( ) 181
- ( ) 211

Spørsmål 14

10 poeng | Lagre svar

Consider the connection in task 3. and suppose the hosts decided not to use selective repeat, but they are using go-back-N. Now, Host B has received and acknowledged all the bytes up to 150. The last acknowledgment it sent had the acknowledgment number 151.

4.b) After sending the ACK for task a) Host B receives a segment with sequence number 151, this one is also 30 bytes long. What acknowledgment number should Host B put in its ACK for that segment?

- ○ 151
- ◉ 181
- ○ 211

Spørsmål 15

10 poeng ✔ Lagret

Consider the connection in task 3. and suppose the hosts decided not to use selective repeat, but they are using go-back-N. Now, Host B has received and acknowledged all the bytes up to 150. The last acknowledgment it sent had the acknowledgment number 151.

4.c) After sending the ACK for task b) Host B receives a segment with length 30 bytes, and sequence number 151. What acknowledgment number should Host B put in its ACK for that segment?

- ○ 151
- ◉ 181
- ○ 211
- ○ No need to send ACK, because it is a duplicate of a segment that has already been ACK-ed.

Spørsmål 16

10 poeng ✔ Lagret

Selective repeat is now used instead of go-back-n. Host B has received and acknowledged all the bytes up to 150. The last acknowledgment it sent had the acknowledgment number 151.

4.d) Host B receives a new segment with length 30 bytes, and sequence number 181. What acknowledgment number should Host B put in its ACK for that segment?

- ○ 151
- ○ 181
- ◉ 211

Spørsmål 17

10 poeng | Lagre svar

Selective repeat is now used instead of go-back-n. Host B has received and acknowledged all the bytes up to 150. The last acknowledgment it sent had the acknowledgment number 151.

4.e) After sending the ACK for task a) Host B receives a segment with sequence number 151, this one is also 30 bytes long. What acknowledgment number should Host B put inits ACK for that segment?

- ○ 151
- ◉ 181
- ○ 211

Spørsmål 18

10 poeng ✔ Lagret

The packets received by Host B in task 4 have a few header fields, here are some of them:

-source IPaddress=192.168.0.10
-destination IPaddress=192.168.0.23
-source port=400
-destination port=600

5.a) Which of these header fields belong in the TCP header?

- ○ The IP addresses
- ◉ The Ports
- ○ All of them
- ○ None of them

Spørsmål 19

10 poeng ✔ Lagret

The packets received by Host B in task 4 have a few header fields, here are some of them:

-source IPaddress=192.168.0.10
-destination IPaddress=192.168.0.23
-source port=400
-destination port=600

5.b) In the ACKs host B sends back to host A, what are the discussed header fields?

- ○ srcIPAddr=192.168.0.10, dstIPAddr=192.168.0.23, srcPort=400, dstPort=600
- ○ srcIPAddr=192.168.0.23, dstIPAddr=192.168.0.10, srcPort=400, dstPort=600
- ◉ srcIPAddr=192.168.0.23, dstIPAddr=192.168.0.10, srcPort=600, dstPort=400
- ○ srcIPAddr=192.168.0.10, dstIPAddr=192.168.0.23, srcPort=600, dstPort=400