T-110.5116 Computer Networks II - Advanced Features

Exam 08.03.2011
No written material allowed
Each question is worth 2 points
Try to keep your answers brief and to the point.
Duration 3h
Teacher: Matti Siekkinen

1. Explain how message ferrying works. When is it most useful?

2. How are mobility and multi-homing supported in Host Identity Protocol (HIP)?

3. What is information centric networking and which advantages does it offer compared to current IP networking?

4. Is TCP a fair protocol?

5. Compare Datagram Congestion Control Protocol (DCCP) to UDP and TCP.

6. Is it currently possible to guarantee a certain quality of service for Internet applications? Justify your answer.

7. Explain how Content Distribution Networks (CDN) function and how they can improve quality of service.

8. Explain how the power saving mechanism in 802.11 network operates and how it helps to save energy.

9. What is network tomography and why is it useful?

10. How does Data Center TCP (DCTCP) differ from basic TCP (Reno)?