T-110.5110 Computer Networks II

12.03.2008 Examination (09-12 T1)

Choose 3 of the 4 topics below and write essays on them. Each topic has additional questions that should be considered in your essay. Discuss other relevant issues as well. Remember to consider what is important and what is not when writing your essay. You may write your essays in Finnish, Swedish, or English.

Remember to include the following information in your paper: the course name, date, student ID, name, and signature.

1. IP Quality of Service

> What is the motivation for Quality of Service (QoS) and what things make its deployment difficult on the Internet? Compare RTP, MPLS, DCCP, and the IntServ and Diffserv architectures.

2. AAA architecture

> Explain the AAA architecture. Consider the main requirements for AAA systems and potential problems with AAA deployments. Consider Radius and Diameter.

3. End-to-end connectivity on the Internet

> Explain briefly how end-to-end connectivity is achieved on the Internet. What makes end-to-end challenging in today's Internet? How does this relate to NAT boxes. Consider STUN, TURN, and ICE.

4. Mobility protocols and locator/identity split for the Internet

> Why is mobility support needed? How does this relate to locator/identity split. Consider Mobile IPv6, NEMO, and HIP.