Advanced Networking 2013/14

January 8, 2014, 1st session of the winter term

Instructions:

The solution time is 90min (1h:30). The time you have is limited, but the correction process keeps this into account: in any case sometimes you have to take decisions and include what is more important, leaving out details or less important issues.

Mark your preference for the oral exam (more than one option is welcome to make scheduling easier)

Your Name

	Lun 13	Mar 14	Lun 20
8.30-11.30			
11.00-12.30	■		
14.00-16.00		■	■
16.00-18.00	■	■	■

The results of the written with the timetable of orals will be published on the course web site within Saturday Jan. 11 (may be late evening).

The written and oral parts are graded in 16-th. Any vote above 30 makes 30 with lode.

Exercise 1

Discuss the issues behind IP-level multicast and explain why it is not widely supported in the Internet.

Exercise 2

Consider the two most widespread standard routing protocols for intra-AS routing: OSPF and RIP.

1. Sketch in a table the key characteristics of both of them.
2. Explain why today OSPF is normally preferred to RIP.
3. Using OSPF and hence the Djikstra algorithm compute the routing table of node A in the network depicted in the side figure. All links are unidirectional and the cost is reported on the "exit" side.
4. How many copies of each Link State Update (OSPF) messages are sent in the network? Why?