

S–38.188 Computer networks 3cp

EXAM.
19.2.2001

Answer questions 1–3 and 4–5 to different papers. Put each paper your name, student number, faculty, course code and date of the examination. This helps us in providing the results as soon as possible. Please answer clearly and thoughtfully. Quality of answer is graded along with the technical knowledge (i.e. Mambo jambo degrades your answer as much as technical weakness).

Good luck in your examination !!!

- 1) Explain the traffic management which is used in the Internet. What are the major blocks within it and what are the interactions between the blocks.
- 2) Explain internal and external routing protocols (the most important internal and external routing protocol (justify your selection)). Explain the operation of the protocol and algorithms which are behind the protocol.
- 3) Explain main building blocks of a Internet router. How these blocks take a part in information transfer. How do different protocols interact with these blocks.



- 4) What are 4 areas of data security? What tools and methods can be used to accomplish each area? (5 p)
- 5) Explain phases of TCP connection (each message travelling in network) when the computer initiating connectiond sends 1 kibibytes of data and the other party replies with 30 kibibytes of data. Initiators window size is 8000 bytes and others 16000 bytes. The messages travel over network which have maximum transfer units of 1500, 4400, 1500 and 1500 bytes. You don't need to consider congestion window. (7 p)

Marko Luoma & Markus Peuhkuri