

Exam 10.12.2013

521340S Communication Networks I (Tietoliikenneverkot I)

1. Discuss in detail Shortest Path Routing Algorithm and in particular
 - a) Dijkstra algorithm
 - b) Bellman Ford algorithm
 - c) Floyd-Marshall algorithm
 - d) Network aggregation
2. Discuss mobility management for mobile IP.
3. Discuss in detail the following issues in network security
 - a) Cryptographic authentication
 - b) An asymmetric two-way authentication.
 - c) Operation of public key encryption system
 - d) Key management
4. Discuss in detail the following design issues in Multihop Cellular Networks
 - a) Multihop routing design/optimization
 - b) Topology control
 - c) Radio resource management
 - d) Load balancing schemes
5. Explain the evolution of the network architecture from 3G to 4G.