## 10121

## Homework assignment

- 1. Consider routing in a network with 180 routers, and on average every router is connected to 5 other routers. Routing information is exchanged every 120 msec. How much network bandwidth is used under link-state and distance vector routing to exchange this information. Assume sequence numbers are used to damp flood packets for link-state. Please explain any assumptions you make about the size of routing table entries.
  - 6 pts
- 2. How can flooding and broadcast be said to be similar to each other? How do they differ? Name *one* way in which they are similar/different.
  - 2 pts
- 3. Split horizon does not always help in avoiding the count-to-infinity problem. Illustrate a case where it fails (make routing tables show 2 iterations).
  - 2 pts