## Protocol Theory 8.5.2003

- 1. (a) What is  $GF(2^3)$ ?
  - (b) What is the difference between Aloha and CSMA/CD?
  - (c) What is OCPC assumption?
  - (d) What is flooding?
- 2. Using primitive polynomial  $x^3 + x^2 + 1$ , encode octal number 53261 with Reed-Solomon coding.
- 3. (a) What are Chernoff bounds?
  - (b) Estimate with Chernoff bound, how probable is it to get at least 70 heads with 100 tosses of coin. (Exact numeric value is not required.)
- 4. Give an overview, how routing in Internet works.