

S-72.423 Exercise 4.

Return your answer no later than Tuesday 25.11.2003, 16:00 into the course's P.O. box at the third floor of the E-wing (Otakaari 5).

Please, include the following information in your answers:

- Your name
- Your student number

It may be that you won't find answers to the questions straight from the lecture material. You have to look for information from the Internet and textbooks. Good luck for information search!

1. **DECT:**

a) Describe (using a few sentences) the meaning of the following DECT acronyms:

- GAP
- GIP
- IAP and IIP
- RAP
- CAP

b) Explain the differences between closed-loop power control and open-loop power control. Why open-loop power control can be used in DECT?

2. **TETRA:**

- a) List TETRA Teleservices
- b) List TETRA Bearer Services for data transfer.

3. **WLAN:** In the IEEE 802.11 specification, the length of the SIFS period must be shorter than the DIFS period. Why?

4. **UMTS:** Describe (using a few sentences) the meaning of the following UMTS features and acronyms:

- FDD / TDD
- UTRAN
- Spreading factor
- Processing gain
- Soft handover
- RRC
- Outer loop power control
- AMR
- Admission control