

## TKT-2410 Digital Systems Design II - March 19th 2007

You may answer in English or Finnish (preferably in Finnish if you can).

**1. You are designing a complex system. Complete the following: "At first, ..." (1p). Did you do this on your project work? (Be honest).**

**2. Explain the following (briefly) (2p each)**

2.a) Bus interface model (BIM).

2.b) Back-annotation.

2.c) Estimated scaling of wires and transistors.

2.d) Arbitration.

**3. Explain the following (3p each)**

3.a) Control flow graph. Show a short example.

3.b) Three visibility modes of a design under test.

3.c) Requirements for reusable component.

**4. Explain the following (4p each)**

4.a) Platform-based design.

4.b) The basic methods of verification. Compare their properties with a table.  
*simulation / emulation / formal / review*

4.c) Parallelism: operation-parallel and data parallel.