

Name	Signature	Student Id Nr	Points

581305-6 Computer Organization I, miniexam 1, 10.11.2015 (10p)

Write your answer on this exam paper in the space given. Please notice, that the exam paper is 2-sided.

a) [3 p] Instruction fetch/execute cycle.

- i. How do you know which instruction is currently in execution?

- ii. How do you know which instruction is next in execution?
Where in memory is it usually (most often)?

- iii. When does the next instruction to execute change during the execution of the current instruction?

- iv. When does the next instruction to execute change after the execution of the current instruction?

b) [3 p] Program location in memory. Assume that the memory are referable by program P is defined with base and limit registers (BASE and LIMIT).

- i. If there is a reference in program code to address 210, which main memory address is referred to?
How is address mapping done?

- ii. How do you control, that program P cannot read or modify the memory areas for program Q?
Where in fetch/execute cycle does this control happen?
Is the controlling done by program P, program Q, the operating system, or system hardware?

c) [4 p] Interrupts

- [illegible]