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Lastname\_

Student number\_

## Net Computing Herkansing academic year 2010-11

### Rules

- This is a closed books exam.
- The operation of any electronic device is prohibited (e.g. no calculator, phone or PDA).
- Answer the questions being *precise*, *complete*, and *formal*.
- Write as *clearly* as possible, both in terms of handwriting and wording.

### Questions

1. Illustrate the general structure of a Remote Method Invocation architecture. Use Java RMI as an example for the explanation.
2. Illustrate the components of the name `http://www.facebook.com`. Illustrate the differences between the iterative and the recursive name resolution and evaluate the two options.
3. Illustrate the phases of a process joining a Jini network and looking for a color printing service in the `logistic` domain.
4. What is a directory service? What are its main functions? Provide an example of a technology implementing a directory service.
5. Write Java code with line by line comments to perform the following operation:<sup>1</sup> connect to the Web page of the University of Groningen, download the main HTML home page and echo it on standard output.

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<sup>1</sup>Syntax errors will not be considered in the evaluation of this exercise. Java objects that might be useful for the solution are: `InetAddress`, `Socket`, `DataOutputStream`, `DataInputStream`.