

# T-110.5121 Mobile Cloud Computing

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**05/2016 Examination** The use of a calculator is ok. All other material is forbidden.

Remember to include the following information in your paper: the course name, date, student ID, name, and signature. **Please use English in your answers.**

**Choose 3 of the 4 topics below** and write essays on them. Each topic has additional questions as hints on what kind of material you should include. Discuss other relevant issues as well. Remember to consider what is important and what is not when writing your essay. Please also pay attention to your handwriting and make sure it is clear enough to read.

In some questions you are required to state your own views. Pay attention that you also justify your opinions.

- 1) You are in charge of designing a cloud solution for road traffic analysis. The system would need to process the location data from thousands of car moving on the road. What kind of mechanisms would you use to ensure that the system is able to scale to a huge number of vehicles? You could also compare the pros and cons of different approaches.
  
- 2) What is Google App Engine? Please use an example to describe how Google App Engine works. (Hints: you can describe the architecture of Google App Engine and explain how App Frontend interacts with App Backend.)
  
- 3) What is MapReduce? Please use an example to explain how MapReduce works.
  
- 4) What is Internet Suspend/Resume? What is the difference between Internet Suspend/Resume and Virtual Machine Live Migration?