Faculty of Sciences
ICT in a Social Context
Exam february 6, 2008

READ THIS PAGE CAREFULLY!

This exam will be corrected by several teachers, therefore it is important that you <u>WRITE YOUR NAME ON EVERY PAGE OF THE EXAM!</u>

Write your answers ONLY on the exam paper itself. If you need more space to answer a question, you may use the back of the page. The exam is in English, but if you prefer, you may answer in Dutch.

<u>Only pages which contain your name at the top will be considered when correcting this exam!!!!</u>

NAME:

STUDENT NUMBER:

This exam consists of three parts:

PART A: Questions about Part 1 of the course, Practical aspects of ICT, worth 30 points
(2 questions of 15 points each).

PART B: Questions about Part 2 of the course, ICT and law, worth 30 points
(3 questions of 10 points each).

PART C: Questions about Parts 3, 4 and the guest lecture, worth 30 points
(2 questions of 15 points each).

In total you can score 90 points. 10 points will be awarded by default. Your total score will therefore be between 10 and 100 points. Your final score for this exam is obtained by dividing this total by 10 and rounding it to the nearest half-point according to faculty regulations (a 5.5 is not possible!).

Good luck, veel succes!

PART A, Exam February 6 2008, ICT in a Social Context. NAME:

Question 1 (15 points). *Projects and EDP-Auditing*

Indicate for each of the next fifteen questions whether the answer is True or False. Only <u>one answer</u> is possible.

		True	False
1	A bottom up estimating technique is per definition more accurate than a top down estimating technique.		
2	Gantt charts show very clearly the interdependencies between activities in a project and which activities are critical.		
3	Initial project estimates are often kept (too) low for political or economical reasons.		
4	A project within an organisation always has a continuous and repeating character.		
5	EDP-audits are usually carried out on the reliability and continuity of a specific ICT application, a technology platform or (part of) the ICT organisation.		
6	Within EDP-auditing it has been impossible over the years to develop adequate norms against which the actual reliability and continuity of ICT applications can be checked.		
7	Top down estimating techniques focus on the details like specific hardware and software components as well as specific delaying factors, e.g. waiting times between project members and supplier delivery schedules.		
8	EDP-auditors are not expected to have social skills to be able to emotionally understand e.g. system developers, project managers and service managers when they audit their systems.		
9	Line managers never should tell their people when an EDP-audit will take place.		
10	Limiting the number of change requests usually avoids the situation that a project is becoming a 'moving target'.		
11	A project usually relates to the core processes of an organisation or organisational unit, is a one-off co-operation between a selected number of professionals, is allocated a fixed time and budget, and has a predefined one-off result.		
12	EDP-auditors are not expected to have an appropriate technical level themselves in order to be able to technically audit an ICT system.		
13	Estimates of the progress of a project are often (too) optimistic, because people like to give positive messages.		
14	The accuracy of the outcome when using automated project management tools is very momentary.		
15	Proper project management and project risk management cover management of time, budget, quality, information and organisation.		

Question 2 (15 points). *Recent developments in the Information and Communication Technology industry*

Give three examples of recent developments in the Information and Communication Technology industry. Describe for each of these three developments the effect they have on the Information and Communication industry and roles people have.

1.

2.

3.

Question 3 (10 points).

Which three criteria does an invention have to meet to be patentable?

Question 4 (10 points).

Article 5
General information to be provided
1. In addition to other information requirements established by Community law, Member States shall ensure that the service provider shall render easily, directly and permanently accessible to the recipients of the service and competent authorities, at least the following information:
(a) the name of the service provider;
(b) the geographic address at which the service provider is established;
(c) the details of the service provider, including his electronic mail address, which allow him to be contacted rapidly and communicated with in a direct and effective manner;

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Question 5 (10 points).

What is the importance of the right on informational self-termination and why is this the essence of privacy? Motivate your choice.

a. This means that government is regulating this human right with knowledge of the individual, so he will know what happens with his personal data.

b. The individual decides how, when and why the information about himself is made public or used by himself or a third party.

c. Because international terrorism is making use of personal information there is an agreement on termination of personal decision making on privacy.

d. It is very important that the individual decides himself how and when his intellectual property rights are protected.

Question 6. (15 points)

a. Digitisation has had a big impact in the newspaper world. Textproduction, photography and layout have been completely digitised already. However, two elements of the process of newspaper production and distribution have hardly changed. Which are they and which development is likely to replace these two elements? (5 points)

b. What is the main difference between the Sarbanes-Oxley Act and the Tabaksblat Code? (5 points)

c. Give one of the two formulations of the Categorical Imperative of Immanuel Kant. (5 points)

Question 7 (15 points).

You are the projectmanager of a team that is working on a computer-guided laser which will be used to treat cancers. The computer determines direction, intensity and timing of the laser beam. For several reasons there have already been delays, and the deadline is close. There will not be enough time to perform all of the necessary tests in full, but until now the system has functioned properly in testscenario's for routine treatment. You must take a decision about whether (and when!) to make the system available to hospitals.

a. Are the following rules of the ACM Code of Ethics relevant in this scenario? Explain why or why not for each rule. (5 points)

- Contribute to society and human well-being.
    Yes/no, because...

- Respect the privacy of others.
    Yes/no, because...

- Accept and provide appropriate professional review.
    Yes/no, because...

- Honor contracts, agreements, and assigned responsibilities.
    Yes/no, because...

- Improve public understanding of computing and its consequences.
    Yes/no, because...

Question 7 (continued).

b. What parties are involved, and what is at stake for each party? (3 points)

c. Make a list of all possible decisions you can take. (2 points)

d. What decision would you take? Use the answers to questions a, b and c in your ethical arguments. You are expected to use both Duty Theory and Utilitarianism. (5 points)