SE 382 – Requirements Engineering and Specification
Winter Quarter 2002-2003
Midterm Exam

Name:_____

Q1	10	
Q2	15	
Q3	20	
Q4	15	
Q5	20	
Q6	20	
Total	**100**	

- Read all questions carefully.
- Answer all 6 questions.
- If you use extra sheets of paper, clearly identify the question you are working on.
- Show your work clearly. If I cannot understand what you are doing, I cannot give you partial credit for it.

<u>Question 1</u> (10)

Suggest who might be stakeholders in a university records system. Give examples where requirements of different stakeholders may conflict in some ways.

Question 2 (15)

You are responsible for collecting the requirements for a utility company that serves many customers nationally. Customers can call a head office on a toll-free number to place orders for service. The office dispatches mobile engineers from one customer to the next.

Please provide one purpose for the system that in your opinion may be important for the company. Along with the purpose, also specify the business advantage and how that advantage can be measured. If you make any assumptions, regarding the context of your purpose, please state them.

Question 3   (20)
In class, we have discussed that a use case should cover all likely exceptions. Describing the ideal case when everything works is necessary, but not sufficient.

Consider the use case "Data Entry" for an e-commerce system where a customer is asked to complete and send in an electronic form including name, address, goods wanted and payment details. The details sent by the user are validated and saved to the database.

List at least 2 exceptions you think can occur for this use case. For each of the exceptions, also specify what you think the product response should be.

<u>Question 4</u>   (15)
Analyze the following list of "user" requirements. Are they complete, clear and verifiable? If not, reformulate them into proper user requirements, or state the additional information that you would need before you can reformulate them into proper requirements.

1. The system shall be easy to use by personnel with minimal training.

2. The database shall store ten years of records.

3. The maximum delay between transmission and reception of the invoice shall be two hours.

Question 5 (20)
Home burglar alarms typically consist of several sensors (such as movement detectors, door position detectors and pressure switches) connected to a control box that sets off the alarm when any sensor reports intrusion.

Draw a contextual model for the alarm system. Label the adjacent systems as active, autonomous or cooperative. Justify your answer.

<u>Question 6</u>   (20)
List at least 2 elicitation techniques that you have read/discussed in class and discuss the
pros & cons of each one of them briefly.

[extra space]