Spring 2007

Student ID_____

All of the questions on this exam are based on the following project description:

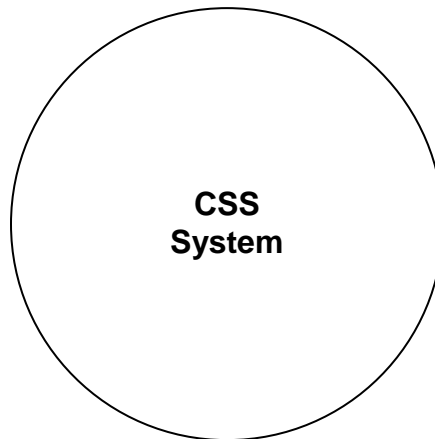Our project is to develop requirements for a FL Tech campus security system (CSS).

Initial System Description:

- The system will support a network of both indoor and outdoor surveillance cameras.
- The system will control access to all campus doors (similar to FL Tech's current key locks, but handled remotely).
- The system will support communications among security personnel.
- The system will have a command center.
- The system will support communications between campus security and local police and fire departments.

1.   (10 points)

Complete the following context diagram showing all of the people and systems to which the CSS System will interface.

**CSS
System**

2.   (10 points)

Identify 5 stakeholders in the CSS project and explain their interests in the system.

3.	(10 points)

Develop a domain model for the CSS system. Recall that the nodes represent people, things, events, transactions, etc. while the edges represent the important associations.

4.   (5 points)

Identify, by name only, 5 Use Cases for the CSS System. Do not elaborate the description of the Use Cases – identify them by name only.

5.   (10 points)

Develop a Use Case for "Officer at command center spots incident that needs a response".   Incident refers to activities such as an altercation, fire, vandalism, etc.   Identify the main success scenario and 1 alternative or extension.

6. (10 points)
   Write a functional requirement that will ensure that the CSS will retain a record of every campus incident responded to. Fill in the description, rationale and fit (or test) criterion only. Do not fill in the fields marked with XXXX.

Requirement #: XXXXX   *Requirement Type:* XXXX   *Event/use case #: :* XXXX

Description:

Rationale:

Source: XXXXXXXXXX

Fit Criterion:

Customer Satisfaction: XXXXX   *Customer Dissatisfaction:* XXXXX

Dependencies: XXXXX   *Conflicts:* XXXXX

Supporting Materials: XXXXX

History: XXXXX

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7.   (10 points)
Write a functional requirement that will ensure that each user is authenticated prior to admission through a campus door. Fill in the description, rationale and fit (or test) criterion only. Do not fill in the fields marked with XXXX.

Requirement #: XXXXX   *Requirement Type: XXXX   Event/use case #: : XXXX*

Description:

Rationale:

Source: XXXXXXXXXX

Fit Criterion:

Customer Satisfaction: XXXXX   *Customer Dissatisfaction:* XXXXX

Dependencies: XXXXX   *Conflicts: XXXXX*

Supporting Materials: XXXXX

History: XXXXX

8. (10 points)
   Write a usability requirement that will ensure that the CSS will be easy for a new security guard to learn to use. Provide a quantitative fit criterion. Fill in the description, rationale and fit (or test) criterion only. Do not fill in the fields marked with XXXX.

Requirement #: XXXXX   *Requirement Type:* XXXX   *Event/use case #:* XXXX

Description:

Rationale:

Source: XXXXXXXXXX

Fit Criterion:

Customer Satisfaction: XXXXX   *Customer Dissatisfaction:* XXXXX

Dependencies: XXXXX   *Conflicts:* XXXXX

Supporting Materials: XXXXX

History: XXXXX

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9.   (10 points)
Write an availability requirement that ensures that the CSS will have acceptable availability (i.e., minimum down time). Provide a quantitative fit criterion. Fill in the description, rationale and fit (or test) criterion only. Do not fill in the fields marked with XXXX.

Requirement #: XXXXX   *Requirement Type: XXXX*   *Event/use case #: XXXX*

Description:

Rationale:

Source: XXXXXXXXXX

Fit Criterion:

Customer Satisfaction: XXXXX   *Customer Dissatisfaction:* XXXXX

Dependencies: XXXXX   *Conflicts: XXXXX*

Supporting Materials: XXXXX

History: XXXXX

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10. (10 points)
    Write an operational requirement that the CSS will maintain full functionality
    when operating at night. Fill in the description, rationale and fit (or test) criterion
    only. Do not fill in the fields marked with XXXX.

Requirement #: XXXXX   *Requirement Type:* XXXX   *Event/use case #: :* XXXX

Description:

Rationale:

Source: XXXXXXXXXX

Fit Criterion:

Customer Satisfaction: XXXXX   *Customer Dissatisfaction:* XXXXX

Dependencies: XXXXX   *Conflicts: XXXXX*

Supporting Materials: XXXXX

History: XXXXX