CSE537   Extra Credit   Spring 2016
15 points

NAME   **ID:**

Please TYPE your solution- together with statements of the PROBLEMS- and e-mail them to me no later then April10

PROBLEM 1

Conceptualization Definition

Conceptualization is a step one of formalization of knowledge in declarative form and is defined as follows

$$\mathbf{C} = (\mathbf{U}, \ \mathbf{F}, \ \mathbf{P}, \mathbf{R})$$

where **U** is a non empty finite set of objects called **universe** of discourse,

F is a **Functional Basis Set**; a finite set of functions defined on **U**. Functions may be partial.

R is a **Relational Basis Set**; a finite set of relations defined on **U**.

QUESTION 1

Conceptualize the following situation using the above definition.

In a room there are 4 animals: 2 dogs and 2 cats, and 2 people. The following properties must be true.

1. *Everybody in the room likes the same (one) cat.*

2. *All people like exactly 2 animals.*

3. *Each dog hates a cat.*

Define sets **U, R** and **F** and justify correctness of your definition

USE **INTENDED** Interpretation

QUESTION 2

Write a careful solution of Problem 5 a, b (pages 40 -41) from Busse Handout