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

\[ C = (U, F, P, R) \]

where \( U \) is a non empty finite set of objects called universe of discourse,

\( F \) is a \textbf{Functional Basis Set}; a finite set of functions defined on \( U \). Functions may be partial.

\( R \) is a \textbf{Relational Basis Set}; a finite set of relations defined on \( U \).

QUESTION 1

Conceptualize the following situation using the above definition.

\textit{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