

CSE 352 Artificial Intelligence HOMEWORK 1 (25pts)

SOLVE Problems that add to 25pts. If you solve more, it will count as 5pts EXTRA CREDIT.

Problem 1 (5pts)

Write detailed solution to problems 2, 4 from our BOOK, page 8.

Problem 2 (5pts)

Write detailed solution to problems 2, 3 from our BOOK, page 39.

Problem 3 (5pts)

(1.) Translate into plain English predicate logic examples from our BOOK, page 23.

(2.) Write a FULL solution following the Predicate Logic (1) Lecture Notes, with explanation and justification of correctness for the examples on the page 24 of our book. Use LECTURE NOTES symbols; book symbols of CAPITAL letters for variables is not correct- capital letters denote SETS and we can't quantifies over sets! Explain why we CAN use "alison" etc .. and what does it mean.

Problem 4 Each part is 5pts, you can solve all or any of them.

(1) (5pts) CONCEPTUALIZE problem 5 from our BOOK, page 39 in Propositional Logic and solve it using Conflict Resolution.

(2) (5pts) CONCEPTUALIZE it in Predicate Logic convention using predicate $attribute(x, value)$ for a triple $(x, attribute, value)$

(3) (5pts) Write a format of a database TABLE needed for solution of (2).

Problem 5 (10pts) Conceptualize the EXAMPLE (Rules R1- R4) on page 47 of the BOOK in Propositional Logic. Explain the role of the Questions posed to the system (in your conceptualization) and use backward chaining to solve the problem depending of the answers.

Problem 6 Each problem is 5ts, choose one, or both.

(1) (5pts) Write detailed solution to problems 2 from BUSSE BOOK (Handout 1).

(1) (5pts) Write detailed solution to problems 4 from BUSSE BOOK (Handout 1).