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Roll - PE29

Sub - AI Practical exam

Problem statement:

Demonstrate resolution in predicate logic with code/pseudo code or coding in any language you prefered

Pseudo Code for Resolution

1] Negate the statement to be proved
2] Convert all the facts into FOL / predicate logic
3] Convert FOL statement into CNF
4] Draw Resolution Graph
5] Start with the negated statement to be proved
6] If found contraction statement is proved.

Eg

Prove Ravi likes Peanuts, likes(Ravi, Peanuts)

a) Ravi likes all kind of food
b) Apple and chicken are food
c) Anything anyone ~~et~~ eats and is not killed is food
d) Ajay eats peanuts and still alive
~~e) Bala et eats that Ajay eats~~

* Convert into FOL

$\forall x : food(x) \rightarrow likes(Ravi, x)$

$\forall x, \forall y : eats(x, y) \wedge \neg killed(x) \rightarrow food(y)$

~~eats (ajay, peanuts) $\wedge$ alive (ajay)~~
$\forall x : \neg killed(x) \rightarrow alive(x)$

* CNF

$\neg food(x) \vee likes(Ravi, x)$

$\neg eats(x, y) \vee killed(x) \vee food(y)$

$killed(x) \vee \neg alive(x)$

* Resolution graph