

PES University, Bangalore

Department of Computer Science and Engineering

Automata Formal Languages & Logic

Assignment for Propositional Logic- Knowledge Base AND Simple Inference **Procedure**

Problem:

1. Convert the following verbal argument to the propositional form: -

Russia was a superior power, and either France was not strong or Napoleon made an error. Napoleon did not make an error, but if the army did not fail, then France was strong. Hence the army failed and Russia was a superior power.

2. Convert the following verbal argument to the propositional form: -

If George Bush is the current president of the US, then Dick Cheney is the current vice president. George Bush is not the current president of the US. Therefore Dick Cheney is not the current vice president.

3. Use a truth table to analyze the arguments.

- a. If there is a cream, then I will drink coffee.
- b. If there is a donut, then I will drink coffee
- c. There is no cream and there is a donut

Infer the conclusion

I drink coffee.