

## Deductive Databases & Knowledge Based Systems

### Sheet 7

#### Exercise 1

Try to answer **briefly**, precisely and understandable (remember: we will have oral exam - abstracting and explaining is important).

1. What is the conceptual difference between Jacobi and Gauss-Seidel iterations?
2. Which problem does the semi-naïve evaluation method address? How is the problem solved?
3. What is the base idea of query rewriting?
4. What is the base idea of push-selection? When and why does it not work?
5. What is the base idea of the magic sets method? What do the actual magic sets contain?

#### Exercise 2

Given is the following Datalog program:

$e(3,1). e(2,5). e(2,3). e(6,1). e(5,6).$

$p(X,Y):-e(X,Y).$

$p(X,Y):-e(X,Z),p(Z,Y).$

Perform a delta-iteration on the program.