# **Homework 9. Design theory**

**Question 1.**

Suppose R(A,B,C,D,E,F) and the FD's are AB🡪C, BC🡪AD, D🡪E, and CF🡪B.

Compute {A,B}+.

**Question 2.**

Suppose R(A,B,C,D,E,F) and the FD's are AB🡪C, BC🡪AD, D🡪E, and CF🡪B.

Test whether D🡪A follows from the set of FD's.

**Question 3.**

Consider relation R(A, B, C, D, E) with FD’s: AB 🡪 C, AE 🡪 D, D 🡪 B

Which of the following attribute pairs is a key?

1. AB
2. AC
3. AD
4. AE

**Question 4.**

For R(A,B,C,D) with B 🡪 C, and B 🡪 D

Indicate all BCNF violations.

Decompose into relations that are in BCNF.