



## **Exercise Sheet 4: View Integration (until Thursday, 17.11.2016) (20 points)**

**Please note:** you need **50%** of all exercise points to receive the *Studienleistung* for this lecture. In order to pass the RDB I Module, you need both the *Studienleistung* **and** you need to pass the exam. Exercises have to be turned in until **Thursday before the lecture** either in the lecture hall or into our mailbox at the IFIS floor (Mühlenpfordtstraße 23, 2<sup>nd</sup> floor). Please do not forget your **Matrikelnummer** and your **tutorial group number** on your solutions. **If you forget** to write your Matrikelnummer and/or your tutorial group number, you get automatically 0 points. Your solutions may be in German or English. Unless otherwise specified: **Always use your own words!**

### **Exercise 4.1 (4 points)**

Briefly explain the four major steps of conceptual schema integration. For each step explain what it does and what do we get after each step.

### **Exercise 4.2 (6 points)**

- Explain what is entity clustering and in what situations is useful (2 points)
- Explain the steps of the clustering process (4 points)

### **Exercise 4.3 (10 points)**

1. Create an EER model for each of the following mini world's descriptions. (5 points)

**Miniworld A:** We are interested in home electronic devices. Each electronic device has a name, a type e.g. washing machine, fridge, etc., a model number, and is manufactured by a company. The manufacturer has a name, an address and a telephone number. Moreover, there are stores selling these home devices. Each store has a name and belongs to a city.

**Miniworld B:** We are interested in coffee machines. Each coffee machine has a name, a manufacturer and a list of the different types of coffee e.g. latte, cappuccino, espresso, cappuccino-latte, etc., that can be prepared with the machine. For each type of coffee there is a name, a description of the type of coffee, and the year where this type of coffee was first invented. We are also interested in storing the number of cups that can be prepared in the lifetime of the coffee machine.

2. Integrate both models into a common one. Please explain your solution and design decisions (5 points)