SE212 Database System and Design

Lab 3

Name SID



1. (5 points ) Define each of the following terms and give an example.

• Business rule Ans:

• Binary relationship Ans:

• Relationship type Ans:

• Attributes Ans:

• Entity instance Ans:

2. (5 point) Giving the business rule below, identify entities for the model.

• A department employs many employees, but each employee is employed by one department.

• Some employees, known as "rovers," are not assigned to any department.

• A division operates many departments, but each department is operated by one division

• An employee may be assigned to many projects and a project may have many employees assigned to it.

• A project must have at least one employee assigned to it.

• One of the employees manages each department.

• One of the employees runs each division.

Ans

3. (5 point) For each of the following pairs of related entities, indicate whether (under typical circumstances) there is a one-to-many or a many-to-many relationship. Then, using the

shorthand notation (traditional) introduced in the slide and text, draw a diagram for each of the relationships. You are going to create a traditional ER diagram using draw.io. ( *10 points*)

a. STUDENT and COURSE (students register for courses)

b. BOOK and BOOK COPY (books have copies)

c. COURSE and SECTION (courses have sections)

d. SECTION and ROOM (sections are scheduled in rooms)

e. INSTRUCTOR and COURSE

Total points 15/3