LAB 1 Korganbek Dinmukhammed

1.

1) $\Pi_{id, person\_name}$ ($\sigma_{employee.person\_name = works.person\_name \wedge company\_name=``Walmart"}$(employee ⋈ works))

2) $\Pi_{id, person\_name, pCity}$ ($\sigma_{employee.person\_name = works.person\_name \wedge company\_name=``Walmart"}$(employee ⋈ works))

3) $\Pi_{id, person\_name, street, pCity}$ ($\sigma_{employee.person\_name = works.person\_name \wedge company\_name=``Walmart"\wedge salary>2000\$}$(employee ⋈ works))

4) $\Pi_{id, person\_name}$ ($\sigma_{employee.person\_name = works.person\_name \wedge works.company\_name = company.company\_name \wedge cCity=pCity}$ (employee ⋈ works ⋈ company))

2. 1) $\Pi_{id, person\_name}$ ($\sigma_{employee.person\_name = works.person\_name \wedge company\_name \neq ``Walmart"}$(employee ⋈ works))

2) $\Pi_{id, person\_name}$ ($\sigma_{employee.person\_name = works.person\_name \wedge salary > avg(salary)}$(employee ⋈ works))

3. • Inserting a tuple:

(21B030692, Shymkent, Medicine, 330000)

into the instructor table, where the department table does not have the

department Medicine, would violate the foreign key constraint.

• Deleting the tuple:

(Geography, Aidos, 15000)

from the department table, where at least one student or instructor

tuple has dept name as Geograpy, would violate the foreign key con-

straint.

4. employee (<u>person name</u>, street, city)

works (<u>person name</u>, company name, salary)

company (<u>company name</u>, city)