

Q1.

Employee table: *person_name* (less possibility of repetition)

Works table: *person_name* (less possibility of repetition)

Company table: *company_name* (less possibility of repetition)

Q2.

Yes. However, if tuples are added, some names can be overlapped. Therefore, selecting ID as primary is better because each person is given his/her own unique ID.

Q3.

In case of inserts, if instructor [ID: 20204, name: Gaeun, dept_name: Computer Science, Salary: 10000] is added to instructor table and there already exists instructor whose dept_name is Computer Science, it violates constraints of FK because only PK can be FK (Also in this case, dept_name cannot be PK). In this case value of dept_name is overlapped and it violates the uniqueness of PK.

Also if 'Spanish language and literature' is inserted on dept_name attribute of department relation which does not exist in instructor relation, it also violates the constraint of FK because child table only can have values of parents table.

In case of deletes, if dept_name attribute of instructor is deleted, dept_name in department of can be deleted or all value of dept_name can be null. However it does not violate constraint of FK.