King Saud University

College Of Applied Studies And Community Service

CT 1313 (Database Design)

Assignment 1

**Q1) Consider the following relational schema for a Company:**

*Employee (Fname, Lname, Emp\_id, Bdate, Address, Gender, Salary, Super\_Emp\_id, D\_no)*

*Department (D\_name, D\_no, D\_Mgr\_id, Mgr\_start\_date )*

*Dept\_Location(D\_no, D\_location )*

*Project (P\_name, P\_number, P\_location, D\_no )*

*Works\_on (Emp\_id, P\_no, Hours )***Write the following queries in relational algebra.**

1. Find the total number of female employee in the Organization, whose salary is more than 25000
2. Find the names of the employee who do not have supervisors.
3. Find the names of employees who work on all projects controlled by department No 05
4. Make a list of project numbers for projects that involve an employee whose last name is “Smith”, either as a worker or as a manager of the department that controls the project.
5. Find the total number of Employees in organization.
6. Find the names of the employees who worked more than 10 hours on project “mobile”