Q. 4 relation are there:

Emp (person-name, street, city)
Works (person-name, company-name, salary)
Company (company-name, city)
Manages (person-name, manager-name)

Queries :-

1.) Name of all employee who works for 'FBC'.
2.) Find name & city of residence of all employees who works for FBC.
3.) Find name, street, city of all employee who works for FBC & earn more than 10,000.
4.) Find name of employee who live in same city as the company for which they work.
5.) Find name of all employee who live in the same city & street as do their manager.
6.) Find name of employee who do not work for FBC.
7.) Find name of all employee who earn more than every employee of SBC.
8.) Assume the companies may be located in several cities. Find all companies located in every city in which SBC is located.

1.) $\Pi_{person\text{-}name}(\sigma_{company\text{-}name = "FBC"}(Works))$

2.) $\Pi_{person\text{-}name, city}(Emp \bowtie (\sigma_{company\text{-}name = "FBC"}(Works)))$

3.) $\Pi_{person\text{-}name, street, city}(\sigma_{(company\text{-}name = "FBC" \wedge Salary > 10000)} Works \bowtie Emp.)$

4.) $\Pi_{person\text{-}name}(Emp \bowtie Works \bowtie Company)$

5.) $\Pi_{person\text{-}name}(Emp \bowtie Manages) \bowtie (manager\text{-}name = e.person\text{-}name \wedge Emp.street = e.street \wedge Emp.city = e.city)(\rho_e(Emp))$

6.) $\Pi_{person\text{-}name}(\sigma_{company\text{-}name \neq "FBC"}(Works))$

7.) $\Pi_{person\text{-}name}(Works) - (\Pi_{Works.person\text{-}name}(Works \bowtie (Works.salary \leq W.Salary \wedge W.company\text{-}name = "SBC")(\rho_W(Works))))$

8.) $\Pi_{company\text{-}name}(Company \div (\Pi_{city}(\sigma_{company\text{-}name = "SBC"}(Company))))$