

## **DBMS Assignment 1**

A. Consider the following relations:

EMPLOYEE (EMPLOYEE\_NAME, STREET, CITY)

WORKS (EMPLOYEE\_NAME, COMPANYNAME, SALARY)

COMPANY (COMPANY\_NAME, CITY)

Write the Relational Algebra

- i) Find the names of all employees who work for first Bank Corporation.
- ii) Find the names and company names of all employees having salary more than 20,000
- iii) Print the details of companies located in "Lucknow"
- iv) Print the name of all employees residing in "Lucknow" but not in "Kanpur"
- v) Print the name and salary of all employees who are not working for the company "TCS"
- vi) Print the name of all employees who are getting more than 50000 salary in the "Wipro" company

B. Consider the following database tables and answer queries using Relational Algebra.

Student (snum, sname, major, age)

Faculty (fid, fname, deptname)

Course (cname, meets\_at, room, fid)

Enrolled (snum, cname)

- i) Find the student number of the students who have enrolled in course Database Systems.
- ii) Find all the courses which are NOT using room R128. \
- iii) Find all the department name of the professor "Ajay Kumar" teaches.
- iv) Find out the all the course name taught by the faculty having ID 2345