**Execute the following queries in SQL over the Company Scheme created as part of earlier lab exercise.**

1. For each department whose average employee salary is more than Rs.30,000, retrieve the

department name and the number of employees working for that department.

select Dname,avg(Salary),count(\*) from employee,department where Dno=Dnumber group by Dname having avg(Salary)>30000;

2. Suppose that we want the number of male employees in each department making more than

Rs.30,000, rather than all employees. Can we specify this query in SQL? Why or why not?

select Dname,avg(Salary),count(\*) from employee,department where Dno=Dnumber and Sex='M' group by Dname having avg(Salary)>30000;

3. Retrieve the names of all employees who work in the department that has the employee with

the highest salary among all employees.

select Fname,Dno from employee where Dno in (select Dno from employee where Salary=(select max(Salary) from employee));

4. Retrieve the names of all employees whose supervisor’s supervisor has ‘5261423’ for Ssn.

select Fname from employee where Super\_Ssn in (select Ssn from employee where Super\_Ssn='123456789');

5. Retrieve the names of employees who make at least Rs.10,000 more than the employee who is

paid the least in the company.

select Fname from employee where Salary>=(select min(Salary)+10000 from employee);

6. Retrieve the names of all employees in department 5 who work more than

10 hours per week on the ProductX project.

select Fname,Ssn from employee,works\_on,project where Dno=6 and Hours>=5 and Pno=pnumber and pname='Product X';

7. List the names of all employees who have a dependent with the same first name as

themselves.

select Fname from employee,dependent where Essn=Ssn and Fname=Dependent\_name;

8. Find the names of all employees who are directly supervised by ‘Abdul Kalam’.

select Fname,Ssn,Super\_Ssn from employee where Super\_Ssn=(select Ssn from employee where Fname='Franklin');

9.Write SQL statements to create a table EMPLOYEE\_BACKUP to back up the EMPLOYEE

table.

Create table employee\_backup values as (select \* from employee);

10.Find the names of employees who work on all the projects controlled by department number

5.

select Fname from employee where (select count(Essn) from works\_on where Ssn=Essn and Pno in (select count(\*) from project where Dnum=5));

11. For each project, list the project name and the total hours per week (by all

employees) spent on that project.

select pname,sum(Hours) from works\_on,project where Pno=pnumber group by pname

12. Retrieve the names of all employees who work on every project.

Select Fname from employee where (select count(Essn) from works\_on where Ssn=Essn)=(select count \* from project);

13. Retrieve the names of all employees who do not work on any project.

Select F\_name from emloyee where Ssn not in (select Essn from works\_on);

14. Retrieve the average salary of all female employees.

select avg(Salary) from employee where Sex='F';

15. Find the names and addresses of all employees who work on at least one

project located in Chennai but whose department has no location in Chennai.

select Fname,Address,Dno from employee where exists(select \* from project,works\_on where plocation='Stafford' and Essn=Ssn) and not exists (select \* from dept\_locations where Dlocation='Stafford' and Dno=Dnumber);

16. List the last names of all department managers who have no dependents.

select Fname from employee where exists (select \* from department where Mgr\_Ssn=Ssn) and not exists (select \* from dependent where Essn=Ssn);

17. Display employee names (e’’) who are supervised by an e’ who is immediately supervised by

an employee with lname “Silberschatz”.

**select Ssn,Fname from employee where Super\_Ssn in (select Ssn from employee where Super\_Ssn in(select Ssn from employee where Lname='Bong'));**

18. Display names of all employees who work on some project controlled by department number

10.

select Fname,Ssn from employee,works\_on,project where Dnum=5 and Pno=pnumber and Essn=Ssn;

19. Display all female employee names who also have dependents along with their dependent

names.

select Fname,Dependent\_name from employee e,dependent d where e.Sex='F' and Essn=Ssn;

20. Find the name of those employees who does a project along with an employee who works in

the minimum number of projects, for each department.

select Ssn from employee,works\_on where Essn=Ssn and Pno in (select Pno from employee,works\_on where exists (select Essn,Dnum,count(Pno) from works\_on,project where Essn=Ssn and Dnum=6 and Pno=pnumber group by Essn having count(Pno)<=all(select count(Pno) from works\_on,project where Pno=pnumber and Dnum=6 group by Essn)) and Ssn=Essn) ;

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