//joins

1. select e.first_name as "employee_name", m.first_name as "manager" from employees e join employees m on e.manager_id = m.manager_id;

2. select job_title, first_name ||' '|| last_name as "Full_Name", max_salary - salary as "salary_difference" from employees natural join jobs;

3. select d.department_name, avg(salary), count(e.commission_pct) from departments d join employees e using(department_id) group by department_name;

4. select j.job_title, e.first_name||' '||e.last_name as full_name, max_salary - salary from employees e join jobs j using (job_id) where e.department_id = 80;

5. select country_name, city, department_name from departments join locations using(location_id) join countries using(country_id);

6. select department_name, first_name||' '||last_name as full_name from departments join employees using(manager_id);

7. select job_title, avg(salary) from employees join jobs using(job_id) group by job_title;

8. select j.* from job_history j join employees e on e.employee_id = j.employee_id where e.salary > 12000;

9. select country_name, city, count(department_id) from countries join locations using(country_id) join departments using(location_id) where department_id in (select department_id from employees group by department_id having

count(department_id)>+2) group by country_name, city;

10. select employee_id, first_name||' '||last_name, salary from employees join departments using (department_id) join locations using(location_id) where city = 'London';

11. select d.department_name, count(e.employee_id) as num_of_emp, d.department_id from departments d left join employees e on d.department_id = e.department_id group by d.department_name, d.department_id;

12. select first_name||' '||last_name as employee_name, employee_id, country_name from employees join departments using(department_id) join locations using(location_id) join countries using(country_id);

13. select ord_no, purch_amt, cust_name, city from orders join customer using(customer_id) where purch_amt between 500 and 2000;

14. select cust_name, c.city, s.name, commission from salesman s join customer c using(salesman_id) where commission>0.12;

15. select cust_name, c.city as cust_city, grade, s.name as "Salesman" from salesman s left join customer c on s.salesman_id = c.salesman_id order by c.salesman_id;

//subqueries

1. select first_name, last_name from employees where salary > (select salary from employees where employee_id = 163);

2. select first_name, last_name, salary, department_id, job_id from employees where job_id = (select job_id from

employees where employee_id = 169);

3. select first_name, last_name, salary, department_id from employees where salary in (select min(salary) from employees group by department_id);

4. select department_id, first_name, last_name, job_id, department_name from employees join departments using(department_id) where department_name = 'Finance';

5. select * from employees where salary = (select distinct salary from employees order by salary desc offset 1 row fetch next 1 row only);

6. select * from employees where department_id not in (select department_id from departments where manager_id between 100 and 200);

7. select first_name, last_name, hire_date from employees where department_id = (select department_id from employees where first_name = 'Clara') and first_name<>'Clara';

8. select employee_id, first_name, last_name from employees where department_id in (select department_id from employees where first_name like '%T%');

9. select employee_id, first_name, last_name, salary from employees where salary > (select avg(salary) from employees) and department_id in (select department_id from employees where first_name like '%J%');

10. select e.first_name, e.last_name, employee_id, j.job_title from employees e join jobs using(job_id) where e.department_id in (select department_id from departments d where location_id in (select location_id from locations where city = 'Toronto'));

11. select e.first_name, last_name, job_title from employees e join jobs using(job_id) where salary > (select salary from employees where job_id = 'MK_MAN');

12. select employee_id, first_name, last_name, job_title from employees e join jobs using(job_id) where salary > any(select avg(salary) from employees group by department_id);

13. select department_id, sum(salary) from employees where department_id in (select department_id from departments) group by department_id having count(department_id) >=1;

14. select e1.first_name, e1.last_name from employees e1 where salary>(select sum(salary)*0.5 from employees e2 where e1.department_id = e2.department_id);

15. select e.employee_id, e.first_name||' '||e.last_name, e.salary, d.department_name, l.city from employees e join departments d using(department_id) join locations l using(location_id) where e.salary = (select max(salary) from employees where hire_date between '01-JAN-2002' and '31-DEC-2003');