1. Which SQL select will display the employees' last_names and their job names?

```
a.  SELECT  employees.last_name,  jobs.job_title
     FROM     employees,  jobs
     WHERE   e.employee_id = j.job_id;

b. SELECT   e.last_name,   j.job_title
     FROM    employees e,   jobs  j
     WHERE  e.employee_id = j.job_id;

c.  SELECT  e.last_name,   j.job_title
     FROM   employees e,   jobs  j
     WHERE    e.job_id = j.job_id;

d. SELECT last_name, job_title
    FROM   employees, jobs
    WHERE  employee_id = job_id;
```

2. Which of the following will do the same but in SQL 92 ?

```
a. SELECT employees.last_name, jobs.jobs_title
   FROM employees INNER JOIN jobs
   USING (job_id);

b. SELECT e.last_name,   j.job_title
   FROM employees e INNER JOIN jobs j
   USING (employee_id);

c. SELECT e.last_name, j.job_title
   FROM employees e  INNER JOIN jobs j
   USING (e.employee_id = j.job_id);

d. SELECT last_name, job_title
   FROM employees INNER JOIN jobs
   ON (job_id);
```

3. Which SQL select will display the employee last names and employee IDs who started employment after Jan 21, 2003 in the department name of "Sales"?

a.
```
SELECT  employees.last_name, employees.employee_ID
 FROM     employees,  job_history, department
 WHERE   e.employee_id = j.employee_id
 AND     e.department_id = d.deparment_id
 AND     j.start_date > '21-Jan-2003'
 AND     upper(d.department_name) = 'Sales';
```

b.
```
SELECT   last_name,  employee_ID
  FROM   employees e, job_history  j, departments d
  WHERE  e.employee_id = j.employee_id
  AND    e.department_id = d.department_id
  AND    j.start_date > '21-Jan-2003'
  AND    d.department_name = 'Sales';
```

c.
```
SELECT  e.last_name, e.employee_ID
 FROM   employees e, job_history j, departments d
 WHERE  e.employee_id = j.employee_id
 AND    j.start_date > '21-Jan-2003'
 AND    upper(d.department_name) = 'SALES';
```

e.
```
SELECT last_name, e.employee_ID
 FROM   employees e, job_history, departments
 WHERE  e.employee_id = job_history.employee_id
 AND    e.department_id = departments.department_id
 AND    start_date > '21-Jan-2003'
 AND    department_name = 'Sales';
```

4. Which of the following will do the same but in SQL 92 ?

a.
```
SELECT employees.last_name, employees.employee_ID
  FROM employees INNER JOIN job_history
  USING (employee_ID) INNER JOIN departments
  USING (department_ID)
  WHERE start_date > '21-Jan-2003'
  AND   department_name = 'Sales';
```

b.
```
SELECT e.last_name, e.employee_ID
  FROM employees e INNER JOIN job_history j
  USING (employee_id) INNER JOIN departments d
  USING (job_id)
  WHERE j.start_date > '21-Jan-2003'
  AND   d.department_name = 'Sales';
```

c.
```
SELECT e.last_name, e.employee_id
FROM employees e INNER JOIN job_history j
ON (e.employee_id = j.employee)
INNER JOIN departments d
ON (d.department_id = j.employee_id)
WHERE j.start_date > '21-Jan-2003'
AND   d.department_name = 'Sales';
```

d.
```
SELECT e.last_name, employee_ID
FROM departments d INNER JOIN employees e
ON (d.department_id = e.department_id) INNER JOIN
JOB_HISTORY j
USING (employee_ID)
WHERE j.start_date > '21-Jan-2003'
AND   lower(d.department_name) = 'sales';
```

5. Which select will NOT return the list of employees who work in Canada?

a.
```
SELECT last_name AS "Last Name"
FROM employees, departments, locations, countries
WHERE employees.employee_id =
departments.employee_id
AND countries.location_id = locations.location_id
AND departments.country_id = countries.country_id
AND upper(country_name) = 'CANADA';
```

b.
```
SELECT last_name "Last Name"
FROM employees INNER JOIN departments
USING (department_id)
INNER JOIN locations
USING (location_id)
INNER JOIN countries
USING (country_id)
WHERE upper(country_name) = 'CANADA';
```

c.
```
SELECT e.last_name
FROM employees e INNER JOIN departments d
ON (e.employee_id = d.employee_id)
INNER JOIN locations l
ON (d.location_id = l.location_id)
INNER JOIN countries c
ON (l.country_id = c.country_id)
WHERE upper(country_name) = 'CANADA';
```

d.
```
SELECT last_name
FROM employees
WHERE department_id IN
```

```
    ( SELECT department_id
   FROM departments
   WHERE location_id IN
      ( SELECT location_id
         FROM locations
         WHERE country_id IN
          ( SELECT country_id
             FROM countries
             WHERE country_name = 'Canada')));
```

6. Which SELECT(s) shows the last name of current managers who at one time had been employed before (have a record in job_history) ?

a.
```
select last_name
from employees, jobs, job_history
where employees.job_id = jobs.job_id
and job_title like '%Manager%'
and employees.employee_id =
job_history.employee_id;
```

b.
```
select last_name
from employees, jobs
where employees.job_id = jobs.job_id
and job_title like '%Manager%'
and employee_id IN
(select employee_id from job_history);
```

c.
```
select e.last_name
from employees e, job_history j
where e.job_id =
( select job_id
  From jobs
  Where job_title like '%Manager%')
And e.employee_id = j.employee_id;
```

d.
```
select last_name
from employees e
where exists
     ( select job_history.job_id
         From job_history
         where e.job_id = job_history.job_id)
  and
  e.job_id in
  (select job_id
     from jobs
     Where job_title like '%Manager%')
```