1. If a subquery returns a null, then any comparisons made to this null value will also return null (i.e., unknown) unless handled with specific conditions, like using IS NULL or NVL functions. This can lead to no rows being returned if the outer query depends on a comparison involving the subquery.
2. SELECT s.id, s.title, s.duration, s.artist_name
   FROM d_songs s
   WHERE s.type_code IN (SELECT type_code FROM d_types WHERE type_name IN ('Jazz', 'Pop'));
3. SELECT last_name
   FROM employees
   WHERE salary IN (SELECT MIN(salary) FROM employees GROUP BY department_id);
4. SELECT last_name
   FROM employees
   WHERE salary = (SELECT MIN(salary) FROM employees);
5.
    a. WHERE year < ANY (SELECT year FROM d_cds WHERE title = 'Carpe Diem')
    b. WHERE salary < ANY (SELECT salary FROM employees WHERE job_id = 'Programmer' AND department_id = 'IT')
    c. WHERE year IN (SELECT year FROM d_cds WHERE title IN ('Party Music for All Occasions', 'Carpe Diem'))
    d. WHERE duration > ALL (SELECT duration FROM d_songs WHERE type_code = 77)
6.
    a. True – If the outer query is comparing size > ANY (8, 9, 10, 11, 12), then size could indeed be 9.
    b. False – IN only allows values that exactly match those in the inner query (102, 105, 437, 225). Therefore, 325 cannot be returned.
    c. False – For score <= ALL (89, 98, 65, 72), all values must be greater than or equal to 98 for the outer query to return a match.
    d. True – NOT IN excludes all values in the list (red, green, blue, black), so the outer query can return other colors like white.
    e. True – = ANY allows dates that match any returned date, so other dates, like 10-Sep-2002, can be valid if they’re in the same format.
7. SELECT department_id, MIN(salary) AS min_salary
   FROM employees
   GROUP BY department_id
   HAVING MIN(salary) < (SELECT MIN(salary) FROM employees WHERE department_id = 50);
8.
    a. FALSE
    b. TRUE
    c. TRUE
    d. TRUE
9. SELECT last_name, first_name, department_id, manager_id

```
FROM employees
WHERE department_id = (SELECT department_id FROM employees WHERE
employee_id = 141)
  AND manager_id = (SELECT manager_id FROM employees WHERE employee_id =
141)
  AND employee_id != 141;
```

10.
```
SELECT last_name, first_name, department_id, manager_id
FROM employees
WHERE department_id = (SELECT department_id FROM employees WHERE
employee_id = 141)
   OR manager_id = (SELECT manager_id FROM employees WHERE employee_id =
141);
```