**iNeuron FSDSM**

**Assessment answers**

**SQL**

**ANSWER 1**

The result of this query will be an empty set.

**Reason:** If the set is evaluated by “SQL NOT IN” condition contains any values that are null, then the outer query here will return an empty set, even if there are many runner ids that match ‘winner\_ids’ in the ‘races’ table.

The new query will be:

**SELECT \* FROM runners WHERE id NOT IN (SELECT winner\_id FROM races WHERE winner\_id IS NOT null)**

**ANSWER 2**

**SELECT a.id FROM test\_a a LEFT JOIN test\_b b on a.id = b.id WHERE b.id is null;**

This query will return the values 20 and 40, which are present in test\_a but not in test\_b.

By using LEFT JOIN we can find the matching values as well as the non-matching values between two tables.

**ANSWER 3**

**SELECT r.id, r.name, r.event, COUNT(r.id) as num\_lessons**

**FROM runners r**

**JOIN races r2 ON r.id = r2.winner\_id**

**WHERE r.event = r2.event AND r.id = r2.id AND r.date = r2.date**

**GROUP BY r.id, r.name, r.event**

**HAVING COUNT(r.id) > 1**

**ORDER BY r.date DESC, r.id;**

**ANSWER 4**

**SELECT Manager\_id, Manager, AVG(Salary) AS Average\_Salary, COUNT(\*) AS Under\_Manager**

**FROM (**

**SELECT Manager\_id, Emp\_name AS Manager, Salary**

**FROM employee**

**WHERE Manager\_id IS NOT NULL**

**) AS managers**

**GROUP BY Manager\_id;**