1.

Question 1

Database optimization involves optimizing only the data retrieval statements that are executed against a database.

1 / 1 point

True

False

Correct

Correct! Database optimization involves optimizing both data retrieval and data change statements

2.

Question 2

Which of the following guidelines should you follow when optimizing SQL select statements? Select all that apply.

1 / 1 point

Avoid using leading wildcards in predicates.

Correct

Correct! You should avoid the use of leading wildcards with predicates because they don’t allow indexes to be used on the column.

Avoid using trailing wildcards in predicates.

Use INNER JOIN instead of OUTER JOIN wherever possible.

Correct

Correct! INNER JOIN combines only the rows that contain matching values in both tables. On the other hand, OUTER JOIN combines rows that don’t have matching values. Extracting this unnecessary data limits database performance.

Avoid using unnecessary columns in the SELECT clause.

Correct

Correct! Only list the required columns in the SELECT clause to avoid placing unnecessary load on the database.

Use OUTER JOIN instead of INNER JOIN wherever possible.

3.

Question 3

Identify the key characteristics of a Primary Index. Select all that apply.

1 / 1 point

A Primary Index is created automatically when a table is created.

Correct

Correct! A Primary Index is created automatically when a table is created with a primary key or unique key.

A Primary Key is also known as a Clustered index.

Correct

Correct! A Primary Index is also known as a Clustered Index.

A Primary Index is created using the CREATE INDEX syntax.

A Primary Key is also known as a Non-Clustered index.

4.

Question 4

The following query is executed on a table named Clients that contains the fields ClientID, FullName and ContactNumber.

123

SELECT ContactNumber

FROM Clients

WHERE FullName='Client Name here';

On which field within the table should a Secondary Index be created to optimize this query?

1 / 1 point

ContactNumber

ClientID

FullName

Correct

Correct! The Secondary Index should be created on the FullName field as it is the field that’s used to perform the search/lookup.

5.

Question 5

What keyword must be added before the following query to view its MySQL query execution plan?

\_\_\_\_\_\_\_\_\_\_\_\_\_ SELECT \*

FROM Orders

WHERE ClientID='Cl1';

EXPLAIN

Correct

Correct! Add an EXPLAIN keyword to the beginning of the query to view the MySQL query optimizer’s execution plan.