Set 1:

a) Explain all the aggregate functions with examples.

Assume you have below table:

passenger (passportID, ticketNo, name, contactNo, age, gender, address).

Write a SQL query to find the total count of all male passengers.

b) Assume you have below tables:

passenger (passportID, ticketNo, name, contactNo, age, gender, address).

ticket (ticketNo, DOJ, address, contactNo, busNo, seatNo, source, destination).

Write a SQL query to find the total number of passengers for each bus.

Set 2:

a) Assume you have below table:

employee (employee, first_name, last_name, email, salary).

Write a SQL query to create a view named "high_salary_employees" that includes only those employees whose salary is greater than 5000.

b) Explain the syntax of "Group By" and "Having" with an example.

Assume you have below table:

ticket (ticketNo, DOJ, address, contactNo, busNo, seatNo, source, destination).

Write a SQL query to count the number of tickets booked for each bus.

Set 3:

a) Assume you have below table:

employee (employee_id, employee_name, department_id, salary, hire_date).

Write a SQL query to get the total salary for each department.

b) Explain the concept of Views. Write down the syntax to create a view table from an existing table with an example of your choice.

Assume you have created a view named "bus details"

bus_details (busNo, source, destination, coachType).

Write a SQL query to remove that created view table from the database.

Set 4:

a) Define the syntax of nested sub query with an example.

Assume you have below tables:

bus (busNo, source, destination, coachType).

ticket (ticketNo, DOJ, address, contactNo, busNo, seatNo).

passenger (passportID, ticketNo, name, contactNo, age, gender, address).

Find all passengers who booked tickets for buses going from 'Boston' to 'Orlando'.

b) Assume you have below table:

passenger (passportID, ticketNo, full_name, email_id, age, gender, address).

Write a SQL query to find the list of the passengers whose name start with 'j' and ends with 'h'.