SQL Coding Exam

Easy Level Questions (Table to use Students)   **7*2=14M**

1.Find the number of students born in each year.

2.List students whose last names start with the letter 'G' or 'H', ordered by last name.

3.Write a query to display the youngest students (by birthdate).

4.Find students who share the same last name.

5.Find students whose email contains the letter "z".

6.Write a query to list students born in the first quarter (January to March) of any year.

7. List all students born in the year 2000.

Intermediate Level Question   **5*5=25M**

8.Write a query to display each customer's name, the total number of orders they have placed, and the total revenue they have generated. Include only customers who have generated more than 1,000 in revenue. **(Table to use Customers, Orders)**

9. Write a query to calculate the total number of orders and categorize the orders as "High Value" if the order_total is greater than 1000, "Medium Value" if between 500 and 1000, and "Low Value" otherwise. **(Table to use Orders)**

10. Write a recursive SQL query to find the "Nth Fibonacci number." The Fibonacci sequence is defined as:
 - F(0) = 0
 - F(1) = 1
 - F(n) = F(n-1) + F(n-2) for n > 1

11. Write a query using the Sales table to calculate the total sales for each sales representative and rank them based on their total sales. Then calculate the running total of sales. **(Tables to use Sales)**

12. Write a SQL query to retrieve the names of employees who earn more than the average salary of their department. However, include only those departments where the number of employees is more than 3. The result should also include the department name. Finally, sort the results by the employee's salary in descending order. **(Table to use DeptList,EmpList)**

Hard Level Question   **1*11=11M**

13.

A- Write a query to achieve the following**:(Table to use
Teams,Staff,Projects,StaffProjects) --- 6M**

1. Calculate the total hours worked by employees on each project.
2. Find out the average hours worked per employee for each department.
3. Determine the highest number of hours worked by an employee on a project within
   their department.
4. For each project, list the employee who worked the most hours, their total hours
   worked, and their department name.
5. Ensure the result includes the following columns:
   - project_name
   - employee_name
   - total_hours_worked (hours worked on the project)
   - average_hours_worked (average hours worked by employees in the same
     department)
   - max_hours_worked (highest hours worked by an employee in the same
     department)

B- Write a SQL query to achieve the following: **(Table to use
Teams,Staff,Projects,StaffProjects) ---5M**

1. Determine the average salary for each department.
2. Identify employees who earn more than the average salary of their respective
   department.
3. For employees who earn more than the average salary, calculate their rank within
   their department based on their salary.
4. List employees with their department names, salaries, and their ranks within their
   departments.