

Question 1 (SQL Server)

- 1.1 What is your opinion related to the statement, "**Windows Authentication is better than SQL authentication**"? Do you agree or do not agree, briefly explain your answer. (5 Marks)
- 1.2 Why do you take SQL server differential backups but not full backups in certain situations? (5 Marks)
- 1.3 A table can have clustered/non-clustered indexes. On what conditions do you select these two indexes to apply on a SQL server table? (5 Marks)
- 1.4 The SQL server has the facility to generate the execution plan for a given query. What is the use in real-world situations? (5 Marks)
- 1.5 Write a select query to display the names of all constraints in the database NIBM. (5 Marks)

Question 2 (Oracle)

- 2.1 Write a PL/SQL block that computes the tax amount for a given employee based on the employee's salary. (The table **EMPLOYEES** has columns **EMPLOYEE_ID** and **SALARY** with data)
- If the employee's salary is between Rs. 150,000 and Rs. 250,000, display the tax amount for the employee as 1% of the salary.
- If the employee's salary is between Rs. 250,000 and Rs. 500,000, display the tax amount for the employee as 5% of the salary.
- If the employee's salary exceeds Rs. 500,000, display the tax amount for the employee as 10% of the salary.
- If the employee's salary is NULL, display the tax amount for the employee as zero. (15 Marks)
- 2.2 Write a PL/SQL block that prints the following output using a FOR loop statement. (10 Marks)