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**Faculty of Technology and Engineering**

**Chandubhai S. Patel Institute of Technology (CSPIT)**

**Department of Computer Science & Engineering**

Date: / /

**Laboratory Manual**

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| Academic Year | : | 2024-25 | Semester | : | 4 |
| Course code | : | CSE206 | Course name | : | DATABASE MANAGEMENT SYSTEM |

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| **Practical - 6** |
| AIM: You are a database administrator for a manufacturing and consulting company. The company maintains two primary tables: Product and Employee Company (emp\_company). You are tasked with solving business queries related to order quantities, employee salaries, and company analysis using SQL grouping and aggregate functions. To manipulate and retrieve meaningful insights using grouping and aggregate functions in SQL while adhering to database constraints and integrity rules.   * Not Null Constraints: Critical fields such as product numbers, employee names, and salaries must not contain null values. * Unique Constraints: Ensure the integrity of unique fields like Product\_no and ENAME. * Check Constraints: Validate that quantities and salaries have valid positive values  1. **Product Table: Tracks order details for various products.**    * Detorder\_no (Primary Key)    * Product\_no (Not Null, Unique)    * Qty\_order (Not Null, Check: Greater than zero) 2. **emp\_company Table: Tracks employees, their companies, and salaries.**   • ENAME (Not Null, Unique)  • CNAME (Not Null)  • SALARY (Not Null, Check: Greater than zero) |

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| 1. Insert the above data into the Product table. |
| 1. Retrieve the product numbers and total quantities ordered for each product. |
| 1. Retrieve the product numbers and total quantities ordered for products P00001 and P00004. |
| 1. Insert the above data into the emp\_company table. |
| 1. List the company names and the maximum salary in each company. |
| 1. Calculate the average salary for each company. |
| 1. List the names of companies with an average salary greater than ₹1,500. |
| 1. Calculate the average salary for each company except ACC. |