ST.JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS), VISAKHAPATNAM

III SEMESTER **COMPUTER SCIENCE** TIME:2HRS/WEEK

CS 3652 (2) **DATABASE MANAGEMENT SYSTEMS LAB** MAX.MARKS:50

w.e.f.20-21 admitted batch-“20AH” **PRACTICAL** **SYLLABUS**

**OBJECTIVES:**

To enable the students to:

* Describe the basics of SQL and construct queries using SQL.
* Know query languages associated with relational models.

**COURSE OUTCOMES:**

After Completion of this course the student would be able to:

* Design and implement a database schema for a given problem.
* Design queries using SQL.
* Apply PL/SQL for processing database.

1. Draw ER diagram for hospital administration

2. Creation of college database and establish relationships between tables

3. Relational database schema of a company is given in the following figure.



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**QUESTIONS TO BE PERFORMED ON ABOVE SCHEMA :**

1. Create above tables with relevant **Primary Key, Foreign Key and other constraints**

2. Populate the tables with data

3. Display all the details of all employees working in the company.

4. Display **ssn, lname, fname, address** of employees who work in department no 7.

5. Retrieve the **Birthdate and Address** of the employee whose name is 'Franklin T. Wong'

6. Retrieve the name and salary of every employee

7. Retrieve all distinct salary values

8. Retrieve all employee names whose address is in ‘Bellaire’

9. Retrieve all employees who were born during the 1950s

10. Retrieve all employees in department 5 whose salary is between 50,000 and 60,000(inclusive)

11. Retrieve the names of all employees who do not have supervisors

12. Retrieve SSN and department name for all employees

13. Retrieve the name and address of all employees who work for the 'Research' department

14. For every project located in 'Stafford', list the project number, the controlling department number, and the department manager's last name, address, and birth date.

15. For each employee, retrieve the employee's name, and the name of his or her immediate supervisor.

16. Retrieve all combinations of Employee Name and Department Name

17. Make a list of all project numbers for projects that involve an employee whose last name is 'Narayan’ either as a worker or as a manager of the department that controls the project.

18. Increase the salary of all employees working on the 'ProductX' project by 15%. Retrieve employee name and increased salary of these employees.

19. Retrieve a list of employees and the project name each works in, ordered by the employee's department, and within each department ordered alphabetically by employee first name.

20. Select the names of employees whose salary does not match with salary of any employee in department 10.

21. Retrieve the employee numbers of all employees who work on project located in Bellaire, Houston, or Stafford.

22. Find the sum of the salaries of all employees, the maximum salary, the minimum salary, and the average salary. Display with proper headings.

23. Find the sum of the salaries and number of employees of all employees of the ‘Marketing’ department, as well as the maximum salary, the minimum salary, and the average salary in this department.

24. Select the names of employees whose salary is greater than the average salary of all employees in department 10.

25. Delete all dependents of employee whose **ssn is ‘123456789’**.

26. Perform a query using alter command to drop/add field and a constraint in Employee table.

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