CSIS05I

Database systems II

Lab (6)

Sheet (6) Solutions

Exercises:

1. Retrieve the names of the dependents that have employee relatives working in the research department.

   Solution:

   ```
   SELECT Dependent_name AS 'Dependents of Research Dept Employees'
   FROM Dependent
   WHERE Essn IN (SELECT Ssn
   FROM Dept, Employee
   WHERE Dept.Dnumber = Employee.Dno AND Dept.Dname = 'Research')
   ```

2. Retrieve the maximum salary of the employees working on the project that is located in 'Zamalek'.

   Solution:

   ```
   SELECT MAX (Salary) AS 'Max salary of employees working on
   projects in Zamalek'
   FROM Employee, Works_On
   WHERE Essn = Ssn
   AND Pno IN (SELECT Pnumber
   FROM Project
   WHERE Project.Plocation= 'Zamalek');
   ```

   OR

   ```
   SELECT MAX (Salary) AS 'Max salary of employees working on
   projects in Zamalek'
   FROM Employee
   WHERE Ssn IN (SELECT Essn
   FROM Project, Works_On
   WHERE Pnumber = Pno AND Project.Plocation= 'Zamalek');
   ```

3. Retrieve the name of the project that have the maximum number of hours.

Solution:

```
SELECT Pname AS 'Project with maximum hours'
FROM Project JOIN Works_On
ON Project.Pnumber = Works_On.Pno
WHERE Works_On.Hrs = (SELECT MAX (Hrs)
FROM Works_On);
```

4. Retrieve the department names without duplication where the working employees have

female dependents.

Solution:

```
SELECT Distinct Dname AS 'Departments having employees with
female dependents'
FROM Dept, Employee
WHERE Employee.Dno = Dept.Dnumber
AND Ssn IN (SELECT Essn
FROM Dependent
WHERE Sex = 'F');
```

5. Retrieve the names of the employees who live in the same location as that of their project.

Solution:

```
SELECT Fname + '' + Lname AS 'Full name'
FROM Employee
WHERE Ssn IN (SELECT Essn
FROM Project, works_on
WHERE Pno = Pnumber
AND Emp_address = Plocation);
```