**Ex.No. 7**

## Join Queries

**Aim:**

To perform manipulate records of table using nested queries in SQL.

**Joins**

- Used to combine the data spread across tables

**Syntax**

```
SELECT    table1.column, table2.column
FROM      table1, table2
WHERE     table1.column1 = table2.column2;
```

- A JOIN Basically involves more than one Table to interact with.
- Where clause specifies the JOIN Condition.
- Ambiguous Column names are identified by the Table name.
- If join condition is omitted, then a **Cartesian product** is formed. That is all rows in the first table are joined to all rows in the second table

**Types of Joins**

- Inner Join (Simple Join) : It retrieves rows from 2 tables having a common column.
  - Equi Join : A join condition with relationship = .
  - Non Equi Join : A join condition with relationship other than = .
- Self Join : Joining of a table to itself
- Outer Join : Returns all the rows returned by simple join as well as those rows from one table that do not match any row from the other table. The symbol (+) represents outer joins.

Create a table Student and Course and apply all types of join and wrte the output

**Student**

| ROLL_NO | NAME | ADDRESS | Age |
|---|---|---|---|
| 1 | Ram | Delhi | 18 |
| 2 | RAMESH | GURGAON | 18 |
| 3 | SUJIT | ROHTAK | 20 |
| 4 | SURESH | Delhi | 18 |

| COURSE_ID | ROLL_NO |
|---|---|
| 1 | 1 |
| 2 | 2 |
| 2 | 3 |
| 3 | 4 |

**Q1)** List *empno, ename, deptno* from *emp* and *dept* tables.

**SQL>**

**Q2)** Create a table *Salgrade* with the following data .

| Grade | Losal | Hisal |
|---|---|---|
| 1 | 700 | 1400 |
| 2 | 1401 | 2000 |
| 3 | 2001 | 5000 |
| 4 | 5001 | 9999 |

Now, list *ename, sal* and *salgrade* of all employees.

**SQL>**

**Q3)** List *ename, deptno* and *deptname* from *emp* and *dept* tables, including the rows of *emp* table that does not match with any of the rows in *dept* table.

**SQL>**

**Q4)** List *ename, deptno* and *deptname* from *emp* and *dept* tables, including the rows of *dept* table that does not match with any of the rows in *emp* table.

**SQL>**

**Q5)** List the names of the employee with name of his/her manager from *emp* table.

**SQL>**