



## SQL SYLLABUS

**Introduction of Database Concept:** relation/table, attribute/field, tuple/rows;

**Data Type-** number, character and date;

**Key** –unique key, primary key, candidate key, alternate key, foreign key;

**Example of Common Database Management System:** MySQL, INGRES, POSTGRES, ORACLE, DB2, MS SQL, Sybase.

**Introduction to MySQL**

**Classification of SQL statement:**

**DML** – SLECECT, INSERT, UPDATE, DELETE

**DDL** – CREATE, DROP, ALTER etc.

**DCL** – ROLLBACK, SAVEPOINT, COMMIT

**SQL SELECT Statement (Working with demo/Already Existing Table)** : SELECT statement, selecting all the columns, selecting specific column, using arithmetic operators, operator precedence, defining and using column alias, duplicate rows and their elimination (DISTINCT keyword), displaying table structure (DESC command);

**SELECT Statement continued:** limiting rows during selection (using WHERE clause), working with character string and dates, working with NULL value;

**Using comparison operators:** =, <, >, <=, <>, BETWEEN, IN, LIKE(%), logical operator -AND, OR, NOT ;operator precedence; ORDER BY Clause, sorting in ascending/ descending order, sorting by column alias name, sorting on multiple column ;

**Function in MySQL** : string function – CHAR(), CONCAT(), INSTR(), LCASE(), LEFT(), LOWER(), LENGTH(), LTRIM(), MID(), RIGHT(), RTRIM(), SUBSTR(), TRIM(), UCASE(), UPPER().

**Mathematical function** – POWER (), ROUND (), TRUNCATE ()

**Date and time function-** CURDATE(), DATE(), MONTH(), YEAR(), DAYNAME(), DAYOFMONTH(), DAYOFWEEK(), DAYOFYEAR(), NOW(), STSDATE().

**Manipulating data of a table/ relation:** inserting new row, inserting new row with null values, inserting NUMBER, CHAR and date value, update statement to change existing data of a table, updating rows in a table, delete statement – removing row / rows from a table.

**Creating table** using CREATE TABLE, ALTER TABLE for adding a new column, using naming conventions for column name