**Practical No 11: Use of String and Arithmetic Function in SQL.**

1. **String Function:**

|  |  |
| --- | --- |
| **Function** | **Description** |
| CONCAT (str1, str2,..) | Return concatenated string |
| INSERT (str, pos, len, newstr) | Insert a substring at the specified position up to the specified number of characters. |
| INSTR (str, substr) | Return the index of the first occurrence of substring. |
| LCASE (str) / LOWER (str) | Synonym for LOWER() |
| LEFT (str, len) | Return the leftmost number of characters as specified |
| LENGTH (str) | Return the length of a string in bytes |
| MID (str, pos, len) | Return a substring starting from the specified position |
| REPLACE (str, from str, to str) | Replace occurrences of a specified string |
| REVERSE (str) | Reverse the characters in a string. |
| STRCMP (expr1, expr2) | Compare two strings |
| SUBSTR (str, pos) | Return the substring as specified |
| UPPER (str) / UCASE (str) | Convert to uppercase. |

1. **Arithmetic Function:**

|  |  |
| --- | --- |
| ABS(n) | Absolute value of a number |
| CEIL(n) | Get the smallet integer which is higher then the input value. |
| COS(n) | COS() function takes input in Radian. |
| FLOOR(n) | Returns the highest integer which is lower than the input value. |
| MOD(n, m) | Getting the remainder of a division and using in our Query |
| POW(n, m) | Power of a number |
| ROUND(n, [m]) | Rounded to decimals |
| SIN(n) | SIN() function takes input in Radian |
| SQRT(n) | Square root of a number |

1. **Query and Output:**

Create table Emp\_Info(Name character(10), Salary number(6));

Insert into Emp\_Info values ('Trupti', 100000);

Insert into Emp\_Info values ('Chaitanya', 75000);

Insert into Emp\_Info values ('Aditya', 25000);

Insert into Emp\_Info values ('Vaishnavi', 50000);

select \* from Emp\_Info;

select upper(Name) from Emp\_Info;

select concat(Name, Salary) from Emp\_Info;

select power(17,24) from dual;

Create table Marksheet (Roll\_No number(2), Name character(10), Percentage number(2));

Insert into Marksheet values (17, 'Trupti', 95);

Insert into Marksheet values (24, 'Chaitanya', 82);

Insert into Marksheet values (28, 'Aditya', 85);

Insert into Marksheet values (20, 'Vaishnavi', 91);

select Name, round(Percentage) from Marksheet