

Name: Farhan Siddiqui

Roll No:87

Sr. No.	DATE	TITLE	SIGN
1.		Study of Data Definition Language Statement	
2.		Study of Data Manipulation Language Statement	
3.		Study of SELECT Statement.	
4.		Draw ER diagram for given scenario/project/case study	
5.		Study of various type of JOINS	
6.		Study of different functions	
7.		Study of various types of SET OPERATORS	
8.		Study of various types of views	
9.		Study of subqueries with all its clauses	
10.		Study of Transaction (Commit/ Rollback), Locks	
11.		Implementing deadlocks	

## Practical 6

Name:Farhan Siddiqui

Roll No. 87

### 1. Numeric Functions:

- A) **Absolute:** The Abs() function is used to calculate the absolute value of an expression.

```
SQL> select Abs(5) from dual;
      ABS(5)
-----
      5

SQL> select Abs(-5) from dual;
      ABS(-5)
-----
      5

SQL> _
```

- B) **Ceil:** Ceil () function returns the smallest integer value that is greater than or equal to a number.

```
SQL> select Ceil<11.2> from dual;
CEIL<11.2>
-----
      12

SQL> select Ceil<11> from dual;
CEIL<11>
-----
      11

SQL> select Ceil<11.78> from dual;
CEIL<11.78>
-----
      12

SQL> _
```

- C) **Floor:** The Floor() function returns the largest integer value that is smaller than or equal to a number.

```
SQL> select Floor<16.2> from dual;
FLOOR<16.2>
-----
      16

SQL> select Floor<16> from dual;
FLOOR<16>
-----
      16

SQL> select Floor<16.82> from dual;
FLOOR<16.82>
-----
      16

SQL>
```

- D) **Square Root:** Sqrt() function returns the square root of a numeric input.

```
SQL> select Sqrt(49) from dual;  
SQRT(49)  
-----  
7  
SQL>
```

**E)Module:** Mod() function is used to return the remainder of a dividend divided by a divisor.

```
SQL> select Mod(10,3) from dual;  
MOD(10,3)  
-----  
1  
SQL>
```

**F)Round:** The Round() function rounds a number to a specified number of decimal places.

```
SQL> select Round(15.43) from dual;  
ROUND(15.43)  
-----  
15  
SQL>
```

**G) Remainder:** Remainder() function returns the remainder of first number divided by second number.

```
SQL> select Remainder(13,2) from dual;
REMAINDER(13,2)
-----
1
SQL> _
```

- H) Power:** Power() function is used to return the value of a number raised to the power of another number.

```
SQL> select Power(5,3) from dual;
POWER(5,3)
-----
125
SQL>
```

- I) Truncate:** Trunc() function is used to truncate a number to a specified number of decimal places.

```
SQL> select Trunc(14.562156,2) from dual;
TRUNC(14.562156,2)
-----
14.56
SQL> _
```

- J) Exponential:** The Exp() function returns e raised to the power of a specified number.

```
SQL> select Exp(2) from dual;  
EXP(2)  
-----  
7.3890561  
SQL>
```

- K) **Logarithm:** Log() function is used to return the logarithm.

```
SQL> select Log(10,100) from dual;  
LOG(10,100)  
-----  
2  
SQL> _
```

## 2. Character Functions:

- A) **Lower:** Lower() function converts all letters in a string to lowercase.

```
SQL> select Lower('HARSH') from dual;  
LOWER  
-----  
harsh  
SQL> _
```

- B) **Upper:** Upper() function converts all letters in a string to uppercase.

```
SQL> select Upper('harsh') from dual;  
_____  
HARSH  
SQL>
```

- C) **Initcap:** Initcap() function sets the first letter of each word in uppercase, all other letters in lowercase.

```
SQL> select Initcap('hi,Harsh here')from dual;  
_____  
INITCAP('HI,H  
Hi,Harsh Here  
SQL> _
```

- D) **Length:** Length() function returns the number of characters of a specified string.

```
SQL> select Length('Thats a nice day to travel') from dual;  
_____  
LENGTH('THATSANICEDAYTOTRAVEL')  
26  
SQL>
```

- E)**Substr:** The Substr() functions returns the specified number of characters from a particular position of a given string.

```
SQL> select Substr('How are you today',4,10) from dual;  
SUBSTR('HO  
-----  
are you t  
SQL>
```

**F) Concat:** Concat() function returns the result of concatenating two string values.

```
SQL> select Concat('Nice to ','meet you') from dual;  
CONCAT('NICETO',  
-----  
Nice to meet you  
SQL>
```

**G) Instr:** Instr() function returns the location of a substring in a string.

```
SQL> select Instr('Welcome to my dreamland','my') from dual;  
INSTR('WELCOMETOMYDREAMLAND','MY')  
-----  
12  
SQL>
```

**H) Trim:** Trim() function removes spaces or specified characters from the begin, end or both ends of a string.

```
SQL> select Trim<leading '2' from '23455656'> from dual;  
TRIM<LE  
-----  
3455656  
  
SQL> select Trim<trailing '4' from '234567434'> from dual;  
TRIM<TRA  
-----  
23456743  
  
SQL> _
```

**I) Rtrim:** Rtrim() function removes all specified characters from the right-hand side of a string.

```
SQL> select Rtrim('1233456789','9,'> from dual;  
RTRIM<'12  
-----  
123345678  
  
SQL>
```

**J) Ltrim:** Ltrim() function removes all specified characters from the left-hand side of a string.

```
SQL> select Ltrim('123456789','1'> from dual;  
LTRIM<'1  
-----  
23456789  
  
SQL>
```

**K) Translate:** Translate() function returns a string with all occurrences of each character in a string replaced by its corresponding character in another string.

```
SQL> select Translate('123456789','45','$') from dual;
TRANSLAT
-----
123$6789
SQL> _
```

**L)Replace:** Replace() function replaces a sequence of characters in a string with another set of characters.

```
SQL> select Replace('123456789','78','%') from dual;
REPLACE(
-----
123456%9
SQL> _
```

**M) Rpad:** Rpad() function is used to padding the right side of a string with a specific set of characters.

```
SQL> select Rpad('wel',5,'$') from dual;
RPAD(
-----
wel$$
SQL> _
```

**N) Lpad:** Lpad() function is used to padding the left side of a string with a specific set of characters.

```
SQL> select Lpad('wel',5,'$') from dual;  
LPAD(  
-----  
$ wel  
SQL> _
```

### 3. Date Functions:

- A) **Sysdate:** Sysdate() returns the current date set for the operating system on which the database resides.

```
SQL> select Sysdate from dual;  
SYSDATE  
-----  
23-FEB-21  
SQL>
```

- B) **Next\_day:** Next\_day() function returns the date of the first weekday specified by day name that is later than a date.

```
SQL> select Next_day(Sysdate,'monday') from dual;  
NEXT_DAY(  
-----  
01-MAR-21  
SQL> _
```

- C) **Last\_day:** The Last\_day() function returns the last day of the month that contains a date.

```
SQL> select Last_day(Sysdate) from dual;  
LAST_DAY<  
-----  
28-FEB-21  
SQL> _
```

- D) **Add\_months:** Add\_months() function returns a date with a specified number of months added.

```
SQL> select Add_months(Sysdate,+2) from dual;  
ADD_MONTH  
-----  
23-APR-21  
SQL>
```

- E)**Months\_between:** Months\_between() function is used to get the number of months between dates.

```
SQL> select Systimestamp from dual;  
SYSTIMESTAMP  
-----  
23-FEB-21 12.14.56.362000 PM +05:30  
SQL>
```

```
SQL> select Months_between(Sysdate,'23-December-2021') from dual;
MONTHS_BETWEEN(SYSDATE,'23-DECEMBER-2021')
-----
-10

SQL> select Months_between('23-December-2021',Sysdate) from dual;
MONTHS_BETWEEN('23-DECEMBER-2021',SYSDATE)
-----
10

SQL> _
```

**F) Systimestamp:** Systimestamp() function returns a timestamp with time zone value that represents the system date and time including fractional seconds and time zone.

**G) Current\_date:** Current\_date() function returns the current date in the session time zone, in a value in the Gregorian calendar of datatype date.

```
SQL> select Current_date from dual;
CURRENT_D
-----
23-FEB-21

SQL> _
```



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**CERTIFICATE**

**Name: Mr.Farhan Siddiqui**

**Roll No: 87      Programme: BSc IT      Semester: II**

This is certified to be a bonafide record of practical works done by the above student in the college laboratory for the course **Database Management Systems I** (Course Code: **2023UISPR**) for the partial fulfillment of Second Semester of BSc IT/CS during the academic year 2020-2021.

The journal work is the original study work that has been duly approved in the year 2020-2021 by the undersigned.

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**External Examiner**

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**Subject-In-Charge  
(Ms.Sweety Garg)**

**Date of Examination: (College Stamp)**