EXPERIMENT 4

4) Queries using Conversion functions (to_char, to_number and to_date), string functions (Concatenation, lpad, rpad, ltrim, rtrim, lower, upper, initcap, length, substr and instr), date functions (Sysdate, next_day, add_months, last_day, months_between, least, greatest, trunc, round, to_char, to_date)

Conversion Functions:

1. TO_CHAR

Syntax: TO_CHAR(DATE, 'FORMATMODEL');

Elements of the Date format model

Element	Result
YYYY	Full Year in Numbers
YEAR	Year spelled out In English
MM	Two-Digit value for month
MONTH	Full name of the month
MON	Three letter abbreviation of the month
DY	Three letter abbreviation of the day of the week
DAY	Full name of the day of the week
DD	Numeric day of the month

Example Queries:

1.SELECT TO_CHAR(SYSDATE, 'MM-DY-YYYY') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MM-DY-YYYY')
12-TUE-2020

2. SELECT TO_CHAR(SYSDATE, 'MM-DD-YYYY') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MM-DD-YYYY')
12-29-2020

3. SELECT TO_CHAR(SYSDATE, 'MM-DAY-YYYY') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MM-DAY-YYYY')

12-TUESDAY -2020

4. SELECT TO_CHAR(SYSDATE, 'MM-DAY-YEAR') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MM-DAY-YEAR')
12-TUESDAY -TWENTY TWENTY

4. SELECT TO_CHAR(SYSDATE, 'MON-DAY-YEAR') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MON-DAY-YEAR')
DEC-TUESDAY -TWENTY TWENTY

4. SELECT TO_CHAR(SYSDATE, 'MON-DD-YYYY') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MON-DD-YYYY')
DEC-29-2020

4. SELECT TO_CHAR(SYSDATE, 'MONTH-DD-YYYY') FROM DUAL;
OUTPUT:

TO_CHAR(SYSDATE,'MONTH-DD-YYYY')
DECEMBER -29-2020

TO_NUMBER FUNCTION:

Convert a character string to a number format using the TO_NUMBER function.

Syntax: TO_NUMBER(CAR[, 'format model']);

TO_DATE FUNCTION:

Syntax: TO_NUMBER(CAR[, 'format model']);

1. SELECT TO_DATE('December 15, 2020', 'Month dd, YYYY') FROM DUAL;

OUTPUT:

TO_DATE('DECEMBER15,2020','MONTHDD,YYYY')
15-DEC-20

1. SELECT TO_DATE('December 15, 2020', 'MM DD, YYYY') FROM DUAL;

OUTPUT:

STRING FUNCTIONS:

1.SELECT LPAD('SQL Tutorial', 20, 'ABC') FROM DUAL;
OUTPUT:
Left-pad the string with "ABC", to a total length of 20:

LPAD('SQLTUTORIAL',20,'ABC')

ABCABCABSQL Tutorial

2. SELECT RPAD("SQL Tutorial", 20, "ABC");
OUTPUT:
Right-pad the string with "ABC", to a total length of 20:

RPAD('SQLTUTORIAL',20,'ABC')
SQL TutorialABCABCAB

3. SELECT LTRIM(' SQL Tutorial') FROM DUAL;
OUTPUT:
Remove leading spaces from a string

LTRIM('SQLTUTORIAL')
SQL Tutorial

4 SELECT RTRIM('SQL Tutorial ') FROM DUAL;
OUTPUT:
Remove trailing spaces from a string

RTRIM('SQLTUTORIAL')
SQL Tutorial

5. SELECT LOWER('BVC ENGINEERING COLLEGE') FROM DUAL;
OUTPUT:
Convert the text to lower-case

LOWER('BVCENGINEERINGCOLLEGE')
bvc engineering college

6. SELECT UPPER('bvc engineering college') FROM DUAL;
OUTPUT:

UPPER('BVCENGINEERINGCOLLEGE')
BVC ENGINEERING COLLEGE

7. SELECT INITCAP('bvc engineering college') FROM DUAL;
OUTPUT:

INITCAP('BVCENGINEERINGCOLLEGE')
Bvc Engineering College

8. SELECT LENGTH('bvc engineering college') FROM DUAL;
OUTPUT:
Return the length of the string, in bytes

LENGTH('BVCENGINEERINGCOLLEGE')
23

9. SELECT SUBSTR('HelloWorld', 1, 5) FROM DUAL;
OUTPUT:

The SUBSTR() function extracts a substring from a string (starting at any position)

SUBSTR('HELLOWORLD',1,5)
Hello

10. SELECT INSTR('HelloWorld', 'W') FROM DUAL;
OUTPUT:
The INSTR() function returns the position of the first occurrence of a string in another string.

INSTR('HELLOWORLD','W')
6

11. SELECT MONTHS_BETWEEN('01-DEC-20','01-JAN-20') FROM DUAL;
OUTPUT:
It returns number of months between two dates

MONTHS_BETWEEN('01-DEC-20','01-JAN-20')
11

12. SELECT SYSDATE FROM DUAL;
OUTPUT:
It displays current system date.

SYSDATE
29-DEC-20

13. SELECT ADD_MONTHS('01-JAN-2020',6) FROM DUAL;
OUTPUT:
ADD calendar months to date

ADD_MONTHS('01-JAN-2020',6)
01-JUL-20

14. SELECT NEXT_DAY('29-DEC-2020','TUESDAY') FROM DUAL;
OUTPUT:
Next day of the date specified.

NEXT_DAY('29-DEC-2020','TUESDAY')
05-JAN-21

15. SELECT LAST_DAY('01-DEC-2020') FROM DUAL;
OUTPUT:
Last day of the month returned.

LAST_DAY('01-DEC-2020')
31-DEC-20

Assume System date is 29-DEC-2020

16. SELECT ROUND(SYSDATE,'MONTH') FROM DUAL;
OUTPUT:

ROUND(SYSDATE,'MONTH')
01-JAN-21

17. SELECT ROUND(SYSDATE,'YEAR') FROM DUAL;
OUTPUT:

ROUND(SYSDATE,'YEAR')
01-JAN-21

18. SELECT TRUNC(SYSDATE,'MONTH') FROM DUAL;
OUPUT:

TRUNC(SYSDATE,'MONTH')
01-DEC-20

19. SELECT TRUNC (SYSDATE, 'YEAR') FROM DUAL;
OUTPUT:

TRUNC(SYSDATE,'YEAR')
01-JAN-20

20. SELECT LEAST (3, 12, 34, 8, 25) FROM DUAL;
OUTPUT:
The LEAST() function returns the smallest value of the list of arguments.

LEAST(3,12,34,8,25)
3

21. SELECT GREATEST (3, 12, 34, 8, 25) FROM DUAL;
OUTPUT:

GREATEST(3,12,34,8,25)
34