

## **EXPERIMENT: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)**

**SQL> select \*from emp;**

<u>ENO</u>	<u>ENAME</u>	<u>SALARY</u>	<u>LOC</u>
101	ali	15000	vja
102	haji	20000	hyd
103	mohammad	42000	vja
104	ravi	23000	gnt
105	irfath	50000	hyd

### **a) Conversion Functions:**

**1. to\_char:** to\_char is used to convert the attribute values to char.

**SQL> select to\_char(salary,'\$99999.99') from emp;**

TO\_CHAR(SALARY)

\$15000.00

\$20000.00

\$42000.00

\$23000.00

\$50000.00

**SQL> SELECT TO\_CHAR (123.4567, '99999.9') FROM DUAL;**

TO\_CHAR(

123.5

**SQL> SELECT TO\_CHAR(123.4567, '99999.99') FROM DUAL;**

TO\_CHAR(1

123.46

**SQL> SELECT TO\_CHAR(1234.56789,'9,999.00') FROM DUAL;**

**TO\_CHAR(1**

**1,234.57**

**SQL> SELECT TO\_CHAR(SYSDATE, 'YYYY/MM/DD') FROM DUAL;**

**TO\_CHAR(SY**

**2021/07/09**

**SQL> SELECT TO\_CHAR (SYSDATE, 'DD/MM/YYYY') FROM DUAL;**

**TO\_CHAR(SY**

**09/07/2021**

**SQL> SELECT TO\_CHAR (23, '000099') FROM DUAL;**

**TO\_CHAR**

**000023**

**SQL> SELECT TO\_CHAR (23, '0000999') FROM DUAL;**

**TO\_CHAR(**

**0000023**

**SQL> SELECT TO\_CHAR (23, '00009') FROM DUAL;**

**TO\_CHA**

**00023**

**SQL> SELECT TO\_CHAR (23, '00000') FROM DUAL;**

**TO\_CHA**

**00023**

**SQL> SELECT TO\_CHAR (234.5678, '000.000') FROM DUAL;**

**TO\_CHAR(**

**234.568**

**SQL> SELECT TO\_CHAR (2345.2345, '9,000.00') FROM DUAL;**

**TO\_CHAR(2**

**2,345.23**

**SQL> SELECT TO\_CHAR (2345.2345, '\$9,000.00') FROM DUAL;**

TO\_CHAR(23

\$2,345.23

**2. to\_number:** to\_number is used to convert the attribute value to number.

**SQL> SELECT TO\_NUMBER('1210.73', '9999.99') FROM DUAL;**

TO\_NUMBER('1210.73','9999.99')

-----  
1210.73

**3. to\_date:** to\_date is used for convert and display the attribute values as date.

**SQL> select to\_date('01-01-2020', 'MM-DD-YYYY') from dual;**

TO\_DATE('

-----  
01-JAN-20

**b) String functions:**

**1. Concatenation:** CONCAT is used to add two attribute values such as string.

**SQL> select concat (eno, loc) from emp;**

CONCAT(ENO,LOC)

-----  
101vja

102hyd

103vja

104gnt

105hyd

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

**SQL> select lpad(ename,10,'\*') from emp;**

LPAD(ENAME,10,'\*')

-----  
\*\*\*\*\*ali

\*\*\*\*\*haji

\*\*mohammad

```
*****ravi
```

```
***irfath
```

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

```
SQL> select rpad(ename,10,'*') from emp;
```

```
RPAD(ENAME,10,'*')
```

```
-----
```

```
ali*****
```

```
haji*****
```

```
mohammad**
```

```
ravi*****
```

```
irfath***
```

**4. ltrim:** LTRIM() function is used to remove all specified characters from the left end side of a string

```
SQL> select ltrim('*****hi*****','*') from dual;
```

```
LTRIM('***
```

```
-----
```

```
hi*****
```

**5. rtrim:** RTRIM() function is used to remove all specified characters from the right end side of a string

```
SQL> select rtrim('*****hi*****','*') from dual;
```

```
RTRIM('*
```

```
-----
```

```
*****hi
```

**6. lower:** lower() function is used to convert the attribute value in to lower case.

```
SQL> select lower(ename) from emp;
```

```
LOWER(ENAM
```

```
-----
```

```
ali
```

```
haji
```

mohammad

ravi

irfath

**7. upper:** upper() function is used to convert the attribute values in to upper case.

**SQL> select upper(ename) from emp;**

UPPER(ENAM

-----

ALI

HAJI

MOHAMMAD

RAVI

IRFATH

**8. initcap:** initcap() is used to convert the attribute values first character in capital letter.

**SQL> select initcap (ename) from emp;**

INITCAP(EN

-----

Ali

Haji

Mohammad

Ravi

Irfath

**9. length:** length() function is used to calculate the length of the given attribute.

**SQL> select ename,length(ename) from emp;**

ENAME            LENGTH(ENAME)

-----

Ali                3

haji               4

mohammad        8

ravi               4

**10. substr:** substr() function is used to find the substring of the given attribute value. It returns size-1 of the given string/ attribute as a sub string.

**SQL> select ename, substr(ename,4) from emp;**

ENAME	SUBSTR(ENAME,4)
-------	-----------------

-----

ali	
-----	--

haji	i
------	---

mohammad	ammad
----------	-------

ravi	i
------	---

irfath	ath
--------	-----

**11. instr:** instr() function return the location of starting position of the sub string in the existing value.

**SQL> select instr('welcome to CRRCOE','to') from dual;**

INSTR('WELCOMETO CRRCOE','TO')
--------------------------------

-----

9
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### **c) Date functions:**

**1. sysdate:** sysdate returns the current system date.

**SQL> select sysdate from dual;**

SYSDATE
---------

-----

28-APR-21
-----------

**2. next\_day();** it returns the date of next coming day .

**SQL> select next\_day(sysdate,'sunday') from dual;**

NEXT_DAY(
-----------

-----

02-MAY-21
-----------

**3. add\_months():** it returns the next date after adding number of months in the arguments.

**SQL> select add\_months(sysdate,5) from dual;**

ADD\_MONTH

-----

28-SEP-21

**4. last\_day():** The LAST\_DAY() function takes a date value as argument and returns the last day of month in that date

**SQL> select last\_day(sysdate) from dual;**

LAST\_DAY(  
-----

30-APR-21

**SQL> select last\_day('02-FEB-2020') from dual;**

LAST\_DAY(  
-----

29-FEB-20

**5. months\_between():** it returns the numbers of months between given two dates.

**SQL> select months\_between('02-feb-2021','02-feb-2020') from dual;**

MONTHS\_BETWEEN('02-FEB-2021','02-FEB-2020')  
-----

12

**SQL> select months\_between(sysdate,'02-feb-2020') from dual;**

MONTHS\_BETWEEN(SYSDATE,'02-FEB-2020')  
-----

14.8600769

**6. least():** it returns least value from the given argument or attributes.

**SQL> select least(300,450,100,440) from dual;**

LEAST(300,450,100,440)  
-----

100

**7. greatest():** it returns maximum values from the given arguments or attributes in the relation.

**SQL> select greatest(300,450,100,440) from dual;**

```
GREATEST(300,450,100,440)
```

```
-----
```

```
450
```

**8. trunc():** The TRUNC() function returns a DATE value truncated to a specified unit.

```
SQL> select trunc(sysdate,'mm') from dual;
```

```
TRUNC(SYS
```

```
-----
```

```
01-APR-21
```

```
SQL> select trunc(sysdate,'yyyy') from dual;
```

```
TRUNC(SYS
```

```
-----
```

```
01-JAN-21
```

**9. round():** Round function round a number to a specified length or precision.

```
SQL> select round(12.49,0) from dual;
```

```
ROUND(12.49,0)
```

```
-----
```

```
12
```

```
SQL> select round(12.51,0) from dual;
```

```
ROUND(12.51,0)
```

```
-----
```

```
13
```

**10. to\_char():** it convert the given date type attribute values to text and return the date in the specific format.

```
SQL> select to_char(sysdate,'yyyy-mm-dd') from dual;
```

```
TO_CHAR(SY
```

```
-----
```

```
2021-04-28
```