18CSC303J/ DBMS

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Exp-4: Inbuilt Functions in SQL

Aim:- To perform Inbuilt Functions in SQL

Commands:

- CHR
- CONCAT
- INITCAP
- INSTR
- LENGTH
- LOWER
- UPPER
- LPAD
- RPAD
- LTRIM
- RTRIM
- TRIM
- REPLACE
- ABS
- ACOS
- ASIN
- ATAN
- CEIL
- FLOOR
- MOD
- POWER
- ROUND
- TRUNC

Date and Time Function

- ADD_MONTHS()
- SYSDATE()
- EXTRACT()
- NEXT_DAY()
- ROUND()
- TRUNC()
- MONTHS_BETWEEN()

Procedure:-

Character Functions

It calculates the ASCII equivalent of the first character of the given

input string. ASCII(<Character>)

ascii('A')	would return 65
ascii('a')	would return 97
ascii('a8')	would return 97

CHR(<Character>)
Returns the character equivalent of the given
integer. Example
SELECT CHR(65), CHR(97) FROM dual;
O/P A a

CONCAT(<string1>,<string2>)
This function returns String2 appended to
String1. Example:
SELECT CONCAT('Fname', 'Lname') Emp_name FROM emp;

INITCAP(<String>)
This function returns String with the first character of each word in upper case
and rest of all in lower case.
Example:
SELECT INITCAP('oracle tutorial')
FROM Dual;
O/p Oracle Tutorial

INSTR
instr(string1, string2 [, start_position [, nth_Appearance]]):
where,

1. string1 is the string to search.
2. string2 is the substring to search for in string1.
3. start_position is the position in string1 from where the search will start.
   This argument is optional. If not mentioned, it defaults to 1.

The first position in the string is 1. If the start_position is negative, the function counts back- ward direction.

4. nth_appearance is the nth appearance of string2. This is optional. If not defined, it defaults to Example
SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2, INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4

FROM
Dual;

pos1	pos2	pos3	pos4
4	9	3	6

LENGTH(<Str>)
Returns length of a string
select length('Sql Tutorial') as len
from dual;
O/p len
   12

LOWER(<Str>)
This function returns a character string with all characters in lower case.

UPPER(<Str>)
This function returns a character string with all characters in upper case.

LPAD(<Str1>,<i>[,<Str2>])
This function returns the character string Str1 expanded in length to i characters, using Str2 to fill in space as needed on the left side of Str1.
Example
SELECT LPAD('Oracle',10,'.') lapd_doted from Dual, would return Oracle
SELECT LPAD('RAM', 7) lapd_exa from Dual would return ' RAM'

RPAD(<Str1>,<i>[,<Str2>])
RPAD is same as LPAD but Str2 is padded at the right side

LTRIM(<Str1>[,<Str2>])
The LTRIM function removes characters from the left side of the character Srting, with all the leftmost characters that appear in another text expression removed.

This function returns Str1 without any leading character that appears in Str2.If Str2 characters are leading character in Str1, then Str1 is returned unchanged. Str2 defaults to a single space.

Example
  Select
LTRIM('datawarehousing','ing')
trim1 , LTRIM('datawarehousing ')
trim2
  , LTRIM('   datawarehousing') trim3

  , LTRIM('datawarehousing','data')
  trim4 from dual

trim1	trim2	trim3	trim4
datawar e- housing	datawareho us- ing	datawarehousing	ware- housin g

RTRIM(<Str1>[,<Str2>])
Same as LTRIM but the characters are trimmed from the right side

TRIM([[<Str1>]<Str2> FROM]<Str3>)
If present Str1 can be one of the following literal: LEADING, TRAILING, BOTH.

This function returns Str3 with all C1(leading trailing or both) occurrences of characters in Str2 removed.

If any of Str1,Str2 or Str3 is Null, this function returns a Null.

Str1 defaults to BOTH, and Str2 defaults to a space

character.

Example
SELECT TRIM(' Oracle ') trim1, TRIM('Oracle ') trim2 FROM Dual;

Ans trim1   trim2

    Oracle   Oracle

It'll remove the space from both

string.

REPLACE(<Str1>,<Str2>[,<St

r 3>|
This function returns Str1 with all occurrence of Str2 replaced with Str3
Example
SELECT REPLACE („Oracle", "Ora", "Arti") replace_exa FROM
Dual;
O/p replace_exa
    Atricle

Essential Numeric
Functions
ABS()

Select Absolute value
SELECT ABS(-25) "Abs" FROM DUAL;

Abs

15

ACOS ()
Select cos value
SELECT ACOS(.28)"Arc_Cosine" FROM DUAL;

ASIN ()
Select sin value
SELECT ASIN(.6)"Arc_Cosine" FROM DUAL;

ATAN()
Select tan value
SELECT ATAN(.6)"Arc_Cosine" FROM DUAL;

CEIL()
  Returns the smallest integer greater than or equal to the order total of
a specified SELECT CEIL(239.8) FROM Dual would return 240

FLOOR()
 Returns the largest integer equal to or less than value.

SELECT FLOOR(15.65) "Floor" FROM DUAL;
 Floor

15
MOD()

Return modulus value
SELECT MOD(11,3) "Mod" FROM DUAL;

Modulus

 2

POWER()
SELECT POWER(3,2) "Power" FROM DUAL;
 power

 9
ROUND (number)
SELECT ROUND(43.698,1) "Round" FROM DUAL;
  Round

  43.7
TRUNC (number)
The TRUNC (number) function returns n1 truncated to n2 decimal places. If n2 is
omitted, then n1 is truncated to 0 places. n2 can be negative to truncate (make
zero) n2 digits left of the decimal point.

```
SELECT TRUNC(12.75,1) "Trunc" FROM DUAL;
 Trunc
-------

 12.75

SELECT TRUNC(12.75,-1) "Trunc" FROM DUAL;
 Trunc
----

 10
```

Date And Time Function
ADD_MONTHS(date,number_of_
month)
SELECT SYSDATE, ADD_MONTHS(SYSDATE,2), ADD_MONTHS(SYSDATE,-2) FROM
DUAL;
 Result:

```
 SYSDATE          ADD_MONTH
-------------    -----------------------------------


 10-Feb-13     10-Apr-13 10-Dec-13
```

EXTRACT(<type> FROM <date>)
'Type' can be YEAR, MONTH, DAY, HOUR, MIN, SECOND,
TIME_ZONE_HOUR, TIME_ZONE_MINUTE, TIME_ZONE_REGION

SELECT SYSDATE, EXTRACT(YEAR FROM SYSDATE)YEAR,
EXTRACT(DAY FROM SYSDATE)DAY , EXTRACT(TIMEZONE_HOUR
FROM SYSTIMESTAMP) TZH
FROM DUAL;
LAST_DAY(<date>)
Extract last day of
month Example:
SELECT SYSDATE, LAST_DAY(SYSDATE) END_OF_MONTH FROM DUAL;

```
     Result: SYS-
         DATE            END_OF_MO

                        -----------
         ----------        ----

             4-
           Aug-  31-Aug-
            18       18
```

NEXT_DAY(<date>,<day>)
SELECT NEXT_DAY('31-Aug-18','SUN') "FIRST MONDAY OF
SEPTEMBER" FROM DUAL;
O/P FIRST MONDAY OF SEPTEMBER
      03-Sep-18

ROUND (date[,<fmt>])
SELECT SYSDATE, ROUND(SYSDATE,'MM'),
ROUND(SYSDATE,'YYYY') FROM DUAL;
Result:

```
            SYSDATE   ROUND(SYS ROUND(SYS
            --------  ----------

            10-FEB-18 01-MAR-18 01-JAN-18
```

TRUNC(date[,<fmt>])
SELECT SYSDATE, TRUNC(SYSDATE,'MM'), TRUNC(SYSDATE,'YYYY')
FROM DUAL;

```
 Result:                  TRUNC(S
 SYS-         TRUNC(SY  Y S
 DATE         S

                -..................    ............
            10-FEB-18 01-
            FEB-         01-JAN-18
            18
```

MONTHS_BETWEEN function returns the number of months between

date1 and date2. SYNTAX
    The syntax for the Oracle/PLSQL MONTHS_BETWEEN function is:

 MONTHS_BETWEEN(date1, date2)
 Parameters or Arguments
    date1 and date2 are the dates used to calculate the number of months.

 If a fractional month is calculated, the MONTHS_BETWEEN function
 calculates the frac- tion based on a 31-day month.

Execution:-

SQL*Plus: Release 11.2.0.4.0 Production on Wed Feb 9 16:33:46 2022

Copyright (c) 1982, 2013, Oracle. All rights reserved.

Enter user-name: **RA1911003010367/RA1911003010367@f1-drjebakumar.co86hfjmfjkx.us-west-2.rds.amazonaws.com:1521/F1**

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

SQL> SELECT ASCII('A');
SELECT ASCII('A')
           *
ERROR at line 1:
ORA-00923: FROM keyword not found where expected

SQL> **SELECT ASCII('A') FROM dual;**

ASCII('A')

        65

SQL> **SELECT ASCII('a') FROM dual**;

ASCII('A')

        97

SQL> **SELECT ASCII('a8') FROM dual;**

ASCII('A8')

        97

SQL> **SELECT ASCII('0') FROM dual;**

ASCII('0')

        48

SQL> **SELECT ASCII('1') FROM dual;**

ASCII('1')

        49

SQL> **SELECT ASCII('10') FROM dual;**

ASCII('10')

        49

SQL> **SELECT ASCII('$') FROM dual;**

ASCII('$')

        36

SQL> **SELECT ASCII('*') FROM dual;**

ASCII('*')

        42

SQL> **SELECT ASCII('@') FROM dual;**

ASCII('@')

        64

SQL> **SELECT ASCII('%') FROM dual;**

ASCII('%')

        37

SQL> **SELECT ASCII('#') FROM dual;**

ASCII('#')

        35

SQL> **SELECT ASCII(';') FROM dual;**

ASCII(';')

        59

SQL> **SELECT ASCII('+') FROM dual;**

ASCII('+')

        43

SQL> **SELECT CHR(65) FROM dual;**

C
-
A

SQL> **SELECT CHR(97) FROM dual;**

C
-
a

SQL> **SELECT CHR(65), CHR(97) FROM dual;**

C C
- -
A a

SQL> SELECT CONCAT('My', 'S', 'QL');
SELECT CONCAT('My', 'S', 'QL')
        *
ERROR at line 1:
ORA-00909: invalid number of arguments

SQL> SELECT CONCAT('MY','SQL');
SELECT CONCAT('MY','SQL')
              *
ERROR at line 1:
ORA-00923: FROM keyword not found where expected

SQL> **SELECT CONCAT('Fname', 'Lname') Emp_name FROM emp;**

no rows selected

SQL> **SELECT CONCAT('Fname', 'Lname') Emp_name FROM emp;**

no rows selected

SQL> **SELECT INITCAP('oracle tutorial') FROM Dual;**

INITCAP('ORACLE

Oracle Tutorial

SQL> **SELECT INITCAP('oracle tutorial')**
 2 FROM Dual;

INITCAP('ORACLE

Oracle Tutorial

SQL> **SELECT INITCAP('oracle') FROM Dual;**

INITCA

Oracle

SQL> **SELECT INITCAP('google') FROM Dual;**

INITCA

Google

```
SQL> SELECT INITCAP('dbms') FROM Dual;

INIT
----
Dbms

SQL> SELECT INITCAP('DBMS') FROM Dual;

INIT
----
Dbms

SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
  3
SQL> SELECT INSERT('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSERT('Character','a',-1,2) POS3,INSERT('character','c',) POS4
  3
SQL> SELECT INSERT('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSERT('Character','a',-1,2) POS3,INSERT('character','c',) POS4
  3  FROM
  4  Dual;
SELECT INSERT('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
       *
ERROR at line 1:
ORA-00936: missing expression


SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
  3  FROM
  4  Dual;
INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
                                   *
ERROR at line 2:
ORA-00936: missing expression


SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c') POS4
  3  FROM
  4  Dual;

     POS1      POS2      POS3      POS4
---------- ---------- ---------- ----------
        4         9         3         1

SQL> SELECT CONCAT('san','d') FROM dual;

CONC
----
sand
```

SQL> **select length('Sql Tutorial') as len from dual;**

      LEN

       12

SQL> **select length('DBMS LAB') as len from dual;**

      LEN

        8

SQL> **SELECT LOWER('DBMS') FROM dual;**

LOWE
----
dbms

SQL> **SELECT UPPER('dbms') FROM dual;**

UPPE

DBMS

SQL> **SELECT LPAD('Oracle',10,'.') lapd_doted FROM Dual;**

LAPD_DOTED

....Oracle

SQL> **SELECT LPAD('RAM', 7) lapd_exa FROM Dual;**

LAPD_EX

    RAM

SQL> **SELECT LPAD('hi',4,'??') FROM dual;**

LPAD

??hi

SQL> **SELECT LPAD('hi',1,'??') FROM dual;**

L
-
h

SQL> **SELECT RPAD('Oracle','10','.') rapd_doted FROM Dual;**

RAPD_DOTED

Oracle....

SQL> **SELECT RPAD('RAM', 7) rapd_exa FROM Dual;**

RAPD_EX

RAM

SQL> **SELECT RPAD('hi',4,'??') FROM dual;**

RPAD
----
hi??

SQL> **SELECT RPAD('hi',1,'??') FROM dual;**

R
-
h

SQL> **SELECT LTRIM(' barbar') FROM dual;**

LTRIM(
------
barbar

SQL> **Select**
  2 LTRIM('datawarehousing','ing')
  3 trim1 , LTRIM('datawarehousing ')
  4 trim2
  5 , LTRIM(' datawarehousing') trim3
  6 , LTRIM('datawarehousing','data')
  7 trim4 from dual;

TRIM1	TRIM2	TRIM3	TRIM4
datawarehousing	datawarehousing	datawarehousing	warehousing

SQL> **SELECT RTRIM('barbar ') FROM dual;**

RTRIM(
------
barbar

SQL> Select
  2 LTRIM('datawarehousing','ing')
  3 trim1 , LTRIM('datawarehousing ')
  4 trim2
  5 , LTRIM(' datawarehousing') trim3
  6 , LTRIM('datawarehousing','data')
  7
SQL> **Select**
  2 RTRIM('datawarehousing','data')
  3 trim1 , RTRIM('datawarehousing ')

```
  4  trim2
  5  , RTRIM(' datawarehousing') trim3
  6  , RTRIM('datawarehousing','ing')
  7  trim4 from dual;
```

```
TRIM1        TRIM2        TRIM3        TRIM4
-------------- -------------- --------------- ------------
datawarehousing datawarehousing  datawarehousing datawarehous
```

SQL> **SELECT TRIM(' Oracle ') trim1, TRIM('Oracle ') trim2 FROM Dual;**

```
TRIM1  TRIM2
------ ------
Oracle Oracle
```

SQL> SELECT REPLACE („Oracle", "Ora", "Arti") replace_exa FROM
  2 Dual;
ERROR:
ORA-01740: missing double quote in identifier

SQL> **SELECT REPLACE ('Oracle', 'Ora', 'Arti') replace_exa FROM Dual;**

```
REPLACE
-------
Article
```

SQL> **SELECT REPLACE('www.mysql.com', 'com', 'COM') from dual;**

```
REPLACE('WWW.
-------------
www.mysql.COM
```

SQL> **SELECT ABS(-25) "Abs" FROM DUAL;**

```
      Abs
----------
      25
```

SQL> **SELECT ACOS(.28)"Arc_Cosine" FROM DUAL;**

```
Arc_Cosine
----------
1.28700222
```

SQL> **SELECT ASIN(.6)"Arc_Cosine" FROM DUAL;**

```
Arc_Cosine
----------
.643501109
```

SQL> **SELECT ATAN(.6)"Arc_Cosine" FROM DUAL;**

```
Arc_Cosine
```

```
----------
  .5404195
```

SQL> **SELECT CEIL(239.8) FROM Dual;**

```
CEIL(239.8)
-----------
      240
```

SQL> **SELECT FLOOR(15.65) "Floor" FROM DUAL;**

```
    Floor
----------
      15
```

SQL> **SELECT MOD(11,3) "Mod" FROM DUAL;**

```
     Mod
----------
      2
```

SQL> **SELECT POWER(3,2) "Power" FROM DUAL;**

```
    Power
----------
      9
```

SQL> **SELECT ROUND(43.698,1) "Round" FROM DUAL;**

```
    Round
----------
     43.7
```

SQL> **SELECT TRUNC(12.75,1) "Trunc" FROM DUAL;**

```
    Trunc
----------
     12.7
```

SQL> **SELECT TRUNC(12.75,-1) "Trunc" FROM DUAL;**

```
    Trunc
----------
      10
```

SQL> **SELECT SYSDATE, ADD_MONTHS(SYSDATE,2), ADD_MONTHS(SYSDATE,-**
> 2) FROM
 2 DUAL;

```
SYSDATE   ADD_MONTH ADD_MONTH
--------- --------- ---------
16-FEB-22 16-APR-22 16-APR-22
```

SQL> **SELECT SYSDATE, ADD_MONTHS(SYSDATE,2), ADD_MONTHS(SYSDATE,-**

```
> 2) FROM
  2  DUAL;

SYSDATE   ADD_MONTH ADD_MONTH
--------- --------- ---------
16-FEB-22 16-APR-22 16-APR-22

SQL> SELECT SYSDATE, EXTRACT(YEAR FROM SYSDATE)YEAR,
  2  EXTRACT(DAY FROM SYSDATE)DAY , EXTRACT(TIMEZONE_HOUR
  3  FROM SYSTIMESTAMP) TZH
  4  FROM DUAL;

SYSDATE       YEAR      DAY       TZH
--------- ---------- ---------- ----------
16-FEB-22    2022      16        0

SQL> SELECT SYSDATE, LAST_DAY(SYSDATE) END_OF_MONTH FROM DUAL;

SYSDATE   END_OF_MO
--------- ---------
16-FEB-22 28-FEB-22

SQL> SELECT NEXT_DAY('31-Aug-18','SUN') "FIRST MONDAY OF
  2  SEPTEMBER" FROM DUAL;

FIRST MON
---------
02-SEP-18

SQL> SELECT SYSDATE, ROUND(SYSDATE,'MM'),
  2  ROUND(SYSDATE,'YYYY') FROM DUAL;

SYSDATE   ROUND(SYS ROUND(SYS
--------- --------- ---------
16-FEB-22 01-MAR-22 01-JAN-22

SQL> SELECT SYSDATE, TRUNC(SYSDATE,'MM'), TRUNC(SYSDATE,'YYYY')
  2  FROM DUAL;

SYSDATE   TRUNC(SYS TRUNC(SYS
--------- --------- ---------
16-FEB-22 01-FEB-22 01-JAN-22

SQL> Select MONTHS_BETWEEN (TO_DATE ('2003/07/01', 'yyyy/mm/dd'), TO_DATE ('2003/03/14',
'yyyy/mm/dd') ) from dual;

MONTHS_BETWEEN(TO_DATE('2003/07/01','YYYY/MM/DD'),TO_DATE('2003/03/14','YYYY/MM/
-------------------------------------------------------------------------------
                                3.58064516

SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
  3  FROM
```

4 Dual;
INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
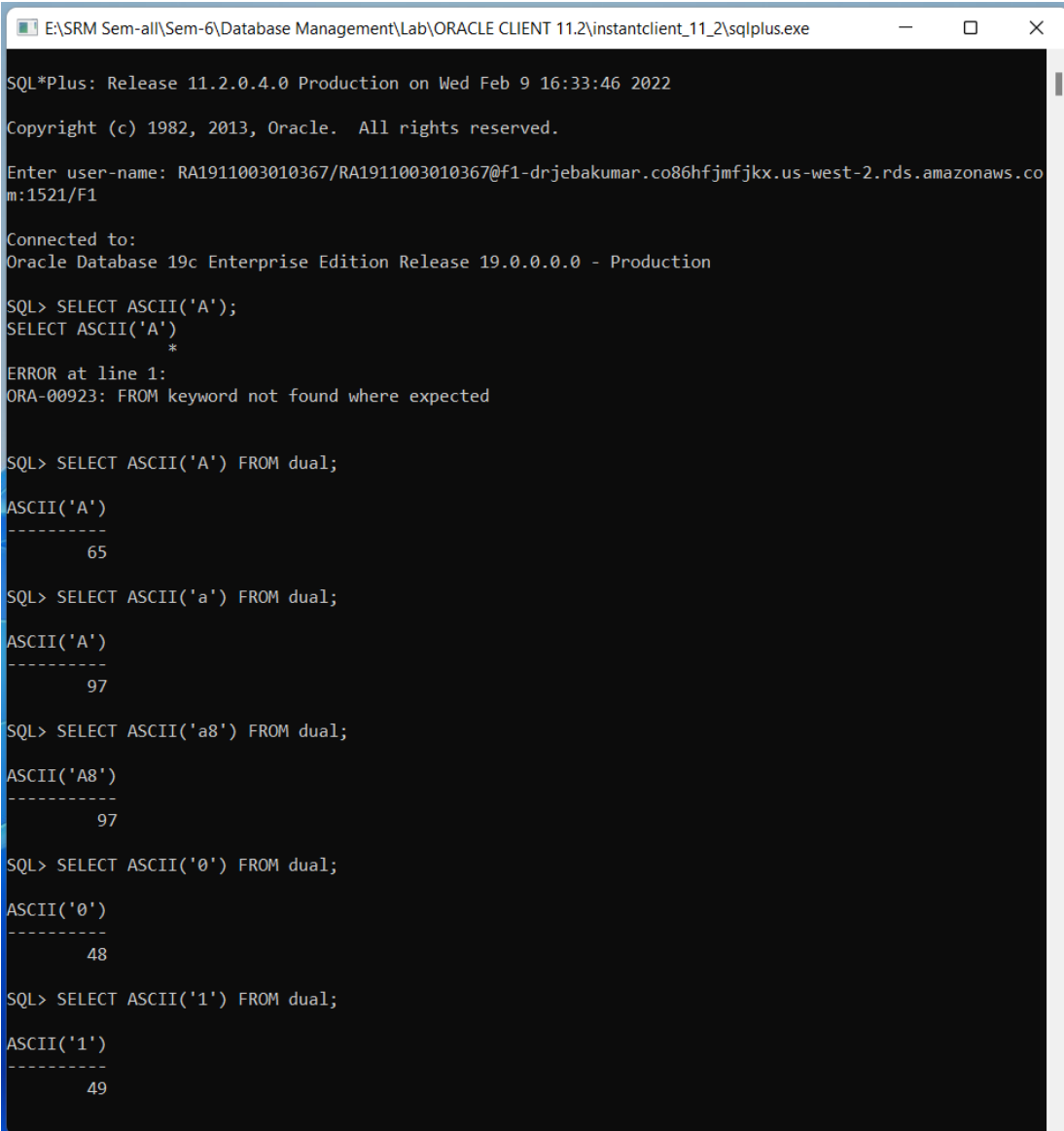   *

ERROR at line 2:
ORA-00936: missing expression

SQL> **SELECT INSTR ('FirstTestString','Test')as INSTR_TABLE from dual;**

INSTR_TABLE

        6

SQL>

```
SQL> SELECT ASCII('10') FROM dual;

ASCII('10')
-----------
         49

SQL> SELECT ASCII('$') FROM dual;

ASCII('$')
----------
        36

SQL> SELECT ASCII('*') FROM dual;

ASCII('*')
----------
        42

SQL> SELECT ASCII('@') FROM dual;

ASCII('@')
----------
        64

SQL> SELECT ASCII('%') FROM dual;

ASCII('%')
----------
        37

SQL> SELECT ASCII('#') FROM dual;

ASCII('#')
----------
        35

SQL> SELECT ASCII(';') FROM dual;

ASCII(';')
----------
        59

SQL> SELECT ASCII('+') FROM dual;

ASCII('+')
----------
        43
```

```
SQL> SELECT CHR(65) FROM dual;

C
-
A

SQL> SELECT CHR(97) FROM dual;

C
-
a

SQL> SELECT CHR(65), CHR(97) FROM dual;

C C
- -
A a

SQL> SELECT CONCAT('My', 'S', 'QL');
SELECT CONCAT('My', 'S', 'QL')
       *
ERROR at line 1:
ORA-00909: invalid number of arguments


SQL> SELECT CONCAT('MY','SQL');
SELECT CONCAT('MY','SQL')
                         *
ERROR at line 1:
ORA-00923: FROM keyword not found where expected


SQL> SELECT CONCAT('Fname', 'Lname') Emp_name FROM emp;

no rows selected

SQL> SELECT CONCAT('Fname', 'Lname') Emp_name FROM emp;

no rows selected

SQL> SELECT INITCAP('oracle tutorial') FROM Dual;

INITCAP('ORACLE
---------------
Oracle Tutorial

SQL> SELECT INITCAP('oracle tutorial')
```

```
SQL> SELECT INITCAP('oracle tutorial')
  2  FROM Dual;

INITCAP('ORACLE
---------------
Oracle Tutorial

SQL> SELECT INITCAP('oracle') FROM Dual;

INITCA
------
Oracle

SQL> SELECT INITCAP('google') FROM Dual;

INITCA
------
Google

SQL> SELECT INITCAP('dbms') FROM Dual;

INIT
----
Dbms

SQL> SELECT INITCAP('DBMS') FROM Dual;

INIT
----
Dbms

SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
  3
SQL> SELECT INSERT('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSERT('Character','a',-1,2) POS3,INSERT('character','c',) POS4
  3
SQL> SELECT INSERT('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSERT('Character','a',-1,2) POS3,INSERT('character','c',) POS4
  3  FROM
  4  Dual;
SELECT INSERT('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
       *
ERROR at line 1:
ORA-00936: missing expression
```

```
SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
  3  FROM
  4  Dual;
INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
                                                       *
ERROR at line 2:
ORA-00936: missing expression


SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c') POS4
  3  FROM
  4  Dual;

      POS1       POS2       POS3       POS4
---------- ---------- ---------- ----------
         4          9          3          1

SQL> SELECT CONCAT('san','d') FROM dual;

CONC
----
sand

SQL> select length('Sql Tutorial') as len from dual;

       LEN
----------
        12

SQL> select length('DBMS LAB') as len from dual;

       LEN
----------
         8

SQL> SELECT LOWER('DBMS') FROM dual;

LOWE
----
dbms

SQL> SELECT UPPER('dbms') FROM dual;

UPPE
----
DBMS
```

```
SQL> SELECT LPAD('Oracle',10,'.') lapd_doted FROM Dual;

LAPD_DOTED
----------
....Oracle

SQL> SELECT LPAD('RAM', 7) lapd_exa FROM Dual;

LAPD_EX
-------
    RAM

SQL> SELECT LPAD('hi',4,'??') FROM dual;

LPAD
----
??hi

SQL> SELECT LPAD('hi',1,'??') FROM dual;

L
-
h
```

```
SQL> SELECT RPAD('Oracle','10','.') rapd_doted FROM Dual;

RAPD_DOTED
----------
Oracle....

SQL> SELECT RPAD('RAM', 7) rapd_exa FROM Dual;

RAPD_EX
-------
RAM

SQL> SELECT RPAD('hi',4,'??') FROM dual;

RPAD
----
hi??

SQL> SELECT RPAD('hi',1,'??') FROM dual;

R
-
h

SQL> SELECT LTRIM('  barbar') FROM dual;

LTRIM(
------
barbar

SQL> Select
  2  LTRIM('datawarehousing','ing')
  3  trim1 , LTRIM('datawarehousing ')
  4  trim2
  5  , LTRIM(' datawarehousing') trim3
  6  , LTRIM('datawarehousing','data')
  7  trim4 from dual;

TRIM1           TRIM2            TRIM3           TRIM4
--------------- ---------------- --------------- ----------
datawarehousing datawarehousing  datawarehousing warehousing

SQL> SELECT RTRIM('barbar  ') FROM dual;

RTRIM(
```

```
SQL> SELECT RTRIM('barbar  ') FROM dual;

RTRIM(
------
barbar

SQL> Select
  2  LTRIM('datawarehousing','ing')
  3  trim1 , LTRIM('datawarehousing ')
  4  trim2
  5  , LTRIM(' datawarehousing') trim3
  6  , LTRIM('datawarehousing','data')
  7
SQL> Select
  2  RTRIM('datawarehousing','data')
  3  trim1 , RTRIM('datawarehousing ')
  4  trim2
  5  , RTRIM(' datawarehousing') trim3
  6  , RTRIM('datawarehousing','ing')
  7  trim4 from dual;

TRIM1           TRIM2           TRIM3           TRIM4
--------------- --------------- --------------- ------------
datawarehousing datawarehousing  datawarehousing datawarehous

SQL> SELECT TRIM(' Oracle ') trim1, TRIM('Oracle ') trim2 FROM Dual;

TRIM1  TRIM2
------ ------
Oracle Oracle

SQL> SELECT REPLACE („Oracle", "Ora", "Arti") replace_exa FROM
  2  Dual;
ERROR:
ORA-01740: missing double quote in identifier


SQL> SELECT REPLACE ('Oracle', 'Ora', 'Arti') replace_exa FROM Dual;

REPLACE
-------
Article

SQL> SELECT REPLACE('www.mysql.com', 'com', 'COM') from dual;
```

```
Article

SQL> SELECT REPLACE('www.mysql.com', 'com', 'COM') from dual;

REPLACE('WWW.
-------------
www.mysql.COM

SQL> SELECT ABS(-25) "Abs" FROM DUAL;

       Abs
----------
        25

SQL> SELECT ACOS(.28)"Arc_Cosine" FROM DUAL;

Arc_Cosine
----------
1.28700222

SQL> SELECT ASIN(.6)"Arc_Cosine" FROM DUAL;

Arc_Cosine
----------
.643501109

SQL> SELECT ATAN(.6)"Arc_Cosine" FROM DUAL;

Arc_Cosine
----------
  .5404195

SQL> SELECT CEIL(239.8) FROM Dual;

CEIL(239.8)
-----------
        240

SQL> SELECT FLOOR(15.65) "Floor" FROM DUAL;

     Floor
----------
        15

SQL> SELECT MOD(11,3) "Mod" FROM DUAL;
```

```
                  15

SQL> SELECT MOD(11,3) "Mod" FROM DUAL;

       Mod
----------
         2

SQL> SELECT POWER(3,2) "Power" FROM DUAL;

     Power
----------
         9

SQL> SELECT ROUND(43.698,1) "Round" FROM DUAL;

     Round
----------
      43.7

SQL> SELECT TRUNC(12.75,1) "Trunc" FROM DUAL;

     Trunc
----------
      12.7

SQL> SELECT TRUNC(12.75,-1) "Trunc" FROM DUAL;

     Trunc
----------
        10

SQL> SELECT SYSDATE, ADD_MONTHS(SYSDATE,2), ADD_MONTHS(SYSDATE,-
> 2) FROM
  2  DUAL;

SYSDATE   ADD_MONTH ADD_MONTH
--------- --------- ---------
16-FEB-22 16-APR-22 16-APR-22

SQL> SELECT SYSDATE, ADD_MONTHS(SYSDATE,2), ADD_MONTHS(SYSDATE,-
> 2) FROM
  2  DUAL;

SYSDATE   ADD_MONTH ADD_MONTH
--------- --------- ---------
```

```
SQL> SELECT SYSDATE, ADD_MONTHS(SYSDATE,2), ADD_MONTHS(SYSDATE,-
> 2) FROM
  2  DUAL;

SYSDATE   ADD_MONTH ADD_MONTH
--------- --------- ---------
16-FEB-22 16-APR-22 16-APR-22

SQL> SELECT SYSDATE, EXTRACT(YEAR FROM SYSDATE)YEAR,
  2  EXTRACT(DAY FROM SYSDATE)DAY , EXTRACT(TIMEZONE_HOUR
  3  FROM SYSTIMESTAMP) TZH
  4  FROM DUAL;

SYSDATE         YEAR        DAY        TZH
--------- ---------- ---------- ----------
16-FEB-22       2022         16          0

SQL> SELECT SYSDATE, LAST_DAY(SYSDATE) END_OF_MONTH FROM DUAL;

SYSDATE   END_OF_MO
--------- ---------
16-FEB-22 28-FEB-22

SQL> SELECT NEXT_DAY('31-Aug-18','SUN') "FIRST MONDAY OF
  2  SEPTEMBER" FROM DUAL;

FIRST MON
---------
02-SEP-18

SQL> SELECT SYSDATE, ROUND(SYSDATE,'MM'),
  2  ROUND(SYSDATE,'YYYY') FROM DUAL;

SYSDATE   ROUND(SYS ROUND(SYS
--------- --------- ---------
16-FEB-22 01-MAR-22 01-JAN-22

SQL> SELECT SYSDATE, TRUNC(SYSDATE,'MM'), TRUNC(SYSDATE,'YYYY')
  2  FROM DUAL;

SYSDATE   TRUNC(SYS TRUNC(SYS
--------- --------- ---------
16-FEB-22 01-FEB-22 01-JAN-22

SQL> Select MONTHS_BETWEEN (TO_DATE ('2003/07/01', 'yyyy/mm/dd'), TO_DATE ('2003/03/14', 'yyyy/mm/dd') ) from dual;
```

```
E:\SRM Sem-all\Sem-6\Database Management\Lab\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe                    —   □   ×

SQL> Select MONTHS_BETWEEN (TO_DATE ('2003/07/01', 'yyyy/mm/dd'), TO_DATE ('2003/03/14', 'yyyy/mm/dd') ) from dual;

MONTHS_BETWEEN(TO_DATE('2003/07/01','YYYY/MM/DD'),TO_DATE('2003/03/14','YYYY/MM/
-------------------------------------------------------------------------------
                                                                     3.58064516

SQL> SELECT INSTR('Character','r',1,1) POS1, INSTR('Character','r',1,2) POS2,
  2  INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
  3  FROM
  4  Dual;
INSTR('Character','a',-1,2) POS3,INSTR('character','c',) POS4
                                                         *
ERROR at line 2:
ORA-00936: missing expression


SQL> SELECT INSTR ('FirstTestString','Test')as INSTR_TABLE from dual;

INSTR_TABLE
-----------
          6

SQL>
```

Result:- The Inbuilt Functions have been successfully performed and tested.