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NUMERIC/ARITHMETIC COMMANDS

---

1. **ABS(N)** – RETURNS THE ABSOLUTE VALUE OF THE COLUMN OR VALUES

PASSED.

SQL> select abs(-65) from dual;

ABS(-65)

65

2.**CEIL(N)**- FINDS THE SMALLEST INTEGER GREATER THAN OR EQUAL TO N

SQL> select ceil (balance)"ceil(88.9)" from account where balance between 500 and 20000;

ceil(88.9)

1000

1500

2000

2500

3000

3500

4000

4500

5000

5500

10 rows selected.

3.**FLOOR(N)**- FINDS THE LARGEST INTEGER LESS THAN OR EQUAL TO N

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SQL> select floor (balance),ceil(88.9) from account where balance between 500 and 20000;

FLOOR(BALANCE) CEIL(88.9)

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

1000 89

1500 89

2000 89

2500 89

3000 89

3500 89

4000 89

4500 89

5000 89

5500 89

10 rows selected.

4. **MOD(M,N)** – RETURNS THE REMAINDER OF M DIVIDED BY N

SQL> select mod(200,30) from dual;

MOD(200,30)

20

5. **POWER(M,N)** – RETURNS M RAISED TO THE POWER OF N

SQL> select balance,power (balance,2)from account where account_no='10001';

BALANCE POWER(BALANCE,2)

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

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1000 1000000

6. **SIGN(N)** – RETURNS -1 IF NEGATIVE ELSE 0 FOR POSITIVE.

SQL> select balance-1500,sign(balance-1500)from account where account_no='10001';

BALANCE-1500 SIGN(BALANCE-1500)

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

-500 -1

7. **SQRT(N)** – RETURNS THE SQUARE ROOT IF N

SQL> select balance,sqrt(balance)from account where account_no='10001';

BALANCE SQRT(BALANCE)

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

1000 31.6227766

8. **TUNC(M,N)** – TRUNCATES THE M TO N DECIMAL PLACES.

SQL> select balance,trunc(sqrt(balance),2),trunc(sqrt(balance),2),trunc(sqrt(balance))from account where branch_name='sbi';

BALANCE TRUNC(SQRT(BALANCE),2) TRUNC(SQRT(BALANCE),2) TRUNC(SQRT(BALANCE))

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

1500 38.72 38.72 38

3500 59.16 59.16 59

5500 74.16 74.16 74

ERROR at line 1:

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---

9. **ROUND(M,N)** – ROUNDS THE COLUMS, EXPRESSION OR VALUES OF M

TO N DECIMAL PLACES.

SQL> select balance,round(sqrt(balance),2),round(sqrt(balance),2),round(sqrt(balance),-2),round(sqrt(balance))from account where branch_name='sbi';

BALANCE ROUND(SQRT(BALANCE),2) ROUND(SQRT(BALANCE),2) ROUND(SQRT(BALANCE),-2)

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

ROUND(SQRT(BALANCE))

1500 38.73 38.73 0

39

3500 59.16 59.16 100

59

5500 74.16 74.16 100

74

10. **EXP(N)** - RETURNS E RAISED TO THE NTH POWER.

SQL> select exp(4) from dual;

EXP(4)

54.59815

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CHARACTER FUNCTIONS:

11. CHR(X)- RETURNS THE CHARACTER THAT HAS THE VALUE EQUIVALENT

TO X IN THE DB CHARACTER SET.

SQL> select chr(37)a,chr(100)b,chr(101) c from dual;

A B C

- - -

% d e

12**. CONCAT (STR1,STR2)** – RETURNS STR1 CONCATENED WITH STR2.

SQL> select concat('sachin','tendulkar')from dual;

CONCAT('SACHIN'

---

sachintendulkar

SQL> select concat(customer_name,customer_city)from customer;

CONCAT(CUSTOMER_NAME,CUSTOMER_CITY)

---

aditya mardurai

ankit mardurai

kadam mardurai

aman salem

atif trichy

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---

namya ahemdabad

nitya ahemdabad

akshit trichy

shwet salem

akshil trichy

anshul mardurai

CONCAT(CUSTOMER_NAME,CUSTOMER_CITY)

---

astha salem

amish ahemdabad

freya trichy

manish salem

faizaan mardurai

16 rows selected.

13.**INITCAP(STR)** – CAPITALIZES THE FIRST CHARACTER OF THE EACH

WORD OF STR

SQL> select initcap(customer_name)from customer;

INITCAP(CUSTOMER_NAM

Aditya

Akshil

Akshit

Aman

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NUMERIC/ARITHMETIC COMMANDS

Amish

Ankit

Anshul

Astha

Atif

Faizaan

Freya

INITCAP(CUSTOMER_NAM

Kadam

Manish

Namya

Nitya

Shwet

16 rows selected.

14**. LOWER(STR)** – CONVERTS STRING TO LOWER CASE

SQL> select lower(customer_name),initcap(customer_name) from customer;

LOWER(CUSTOMER_NAME) INITCAP(CUSTOMER_NAM

---

aditya Aditya

akshil Akshil

akshit Akshit

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NUMERIC/ARITHMETIC COMMANDS

---

aman Aman

amish Amish

ankit Ankit

anshul Anshul

astha Astha

atif Atif

faizaan Faizaan

freya Freya

LOWER(CUSTOMER_NAME) INITCAP(CUSTOMER_NAM

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

kadam Kadam

manish Manish

namya Namya

nitya Nitya

shwet Shwet

16 rows selected.

15. **UPPER(STR)** –CONVERTS STRING TO UPPER CASE

SQL> select upper(customer_name), lower(customer_name), initcap

2

SQL> select upper(customer_name), lower(customer_name), initcap(customer_name) from customer;

UPPER(CUSTOMER_NAME) LOWER(CUSTOMER_NAME) INITCAP(CUSTOMER_NAM

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

ADITYA aditya Aditya

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NAME-: NANDISH SHAH
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NUMERIC/ARITHMETIC COMMANDS

AKSHIL akshil Akshil

AKSHIT akshit Akshit

AMAN aman Aman

AMISH amish Amish

ANKIT ankit Ankit

ANSHUL anshul Anshul

ASTHA astha Astha

ATIF atif Atif

FAIZAAN faizaan Faizaan

FREYA freya Freya

UPPER(CUSTOMER_NAME) LOWER(CUSTOMER_NAME) INITCAP(CUSTOMER_NAM

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

KADAM kadam Kadam

MANISH manish Manish

NAMYA namya Namya

NITYA nitya Nitya

SHWET shwet Shwet

16 rows selected.

16. **LPAD(CH1, N,CH2)** – PADS THE COLUMN FROM LEFT TO TOTAL WIDTH

OF N CHR POSITIONS. THE LEADING SPACES ARE FILLED WITH CH2.

SQL> select balance, lpad(balance,10,'$') from account where branch_name='sbi';

BALANCE LPAD(BALAN

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

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NUMERIC/ARITHMETIC COMMANDS

1500 $$$$$$1500

3500 $$$$$$3500

5500 $$$$$$5500

17. **RPAD(CH1,N,CH2**) – PADS THE COLUMN TO THE RIGHT, TO A TOTAL

WIDTH OF N CHARACTER POSITIONS.

SQL> select balance, lpad(balance,10,'$'),rpad(balance,10,'$') from account where branch_name='sbi';

BALANCE LPAD(BALAN RPAD(BALAN

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

1500 $$$$$$1500 1500$$$$$$

3500 $$$$$$3500 3500$$$$$$

5500 $$$$$$5500 5500$$$$$$

18.**LTRIM(STR,'CH')** – REMOVES ALL BLANK SPACES FROM THE LEFT, IF

CHAR IS SPECIFIED IT REMOVES FROM THE LEFT LEADING OCCURRENCE

OF CHARACTER.

SQL> select customer_name, ltrim(customer_name),ltrim(customer_name,'r') from customer;

CUSTOMER_NAME LTRIM(CUSTOMER_NAME) LTRIM(CUSTOMER_NAME,

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

aditya aditya aditya

akshil akshil akshil

akshit akshit akshit

aman aman aman

amish amish amish

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NAME-: NANDISH SHAH
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NUMERIC/ARITHMETIC COMMANDS

---

ankit ankit ankit

anshul anshul anshul

astha astha astha

atif atif atif

faizaan faizaan faizaan

freya freya freya

CUSTOMER_NAME LTRIM(CUSTOMER_NAME) LTRIM(CUSTOMER_NAME,

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

kadam kadam kadam

manish manish manish

namya namya namya

nitya nitya nitya

shwet shwet shwet

16 rows selected.

19. **RTRIM(STR,'CH')** – REMOVES ALL BLANK SPACES FROM THE RIGHT, IF

CHAR IS SPECIFIED IT REMOVES FROM THE RIGHT LEADING

OCCURRENCE OF CHARACTER.

SQL> select customer_name, rtrim(customer_name),rtrim(customer_name,' m')from customer;

CUSTOMER_NAME RTRIM(CUSTOMER_NAME) RTRIM(CUSTOMER_NAME,

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

aditya aditya aditya

akshil akshil akshil

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NAME-: NANDISH SHAH
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NUMERIC/ARITHMETIC COMMANDS

---

akshit akshit akshit

aman aman aman

amish amish amish

ankit ankit ankit

anshul anshul anshul

astha astha astha

atif atif atif

faizaan faizaan faizaan

freya freya freya

CUSTOMER_NAME RTRIM(CUSTOMER_NAME) RTRIM(CUSTOMER_NAME,

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

kadam kadam kada

manish manish manish

namya namya namya

nitya nitya nitya

shwet shwet shwet

16 rows selected.

20. **REPLACE(STR, SSTR,CH)** - STR WITH EVERY OCCURRENCE OF SSTR

REPLACED WITH CH.

SQL> select customer_name,replace(customer_name,'e','x') from customer;

CUSTOMER_NAME REPLACE(CUSTOMER_NAM

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

aditya aditya

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NUMERIC/ARITHMETIC COMMANDS

---

akshil akshil

akshit akshit

aman aman

amish amish

ankit ankit

anshul anshul

astha astha

atif atif

faizaan faizaan

freya frxya

CUSTOMER_NAME REPLACE(CUSTOMER_NAM

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

kadam kadam

manish manish

namya namya

nitya nitya

shwet shwxt

16 rows selected.

21. **SUBSTR(STR,M,N)** – RETURNS SUBSTRING OF N CHARACTER FROM THE

STR SPECIFIED.

SQL> select customer_name, substr(customer_name,2,4),substr(customer_name,4) from customer;

CUSTOMER_NAME SUBS SUBSTR(CUSTOMER_N

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

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NUMERIC/ARITHMETIC COMMANDS

---

aditya dity tya

akshil kshi hil

akshit kshi hit

aman man n

amish mish sh

ankit nkit it

anshul nshu hul

astha stha ha

atif tif f

faizaan aiza zaan

freya reya ya

CUSTOMER_NAME SUBS SUBSTR(CUSTOMER_N

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

kadam adam am

manish anis ish

namya amya ya

nitya itya ya

shwet hwet et

16 rows selected.

22.**TRANSLATE(STR, FSTR,TSTR)** – RETURNS STR WITH ALL

OCCURRENCES OF EACH CHARACTER IN FSTR REPLACED BY TSTR.

SQL> select translate('abcdefghij','abcdef','12345') from dual;

TRANSLATE

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NAME-: NANDISH SHAH
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NUMERIC/ARITHMETIC COMMANDS

12345ghij

SQL> select translate('abcd','abcd','1') from dual;

T

-

1

SQL> select customer_name, translate(customer_name,'e',1) from customer;

CUSTOMER_NAME TRANSLATE(CUSTOMER_N

---

aditya aditya

akshil akshil

akshit akshit

aman aman

amish amish

ankit ankit

anshul anshul

astha astha

atif atif

faizaan faizaan

freya fr1ya

CUSTOMER_NAME TRANSLATE(CUSTOMER_N

DATE-:3/8/19
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NAME-: NANDISH SHAH
REG NO-:RA1711008010143

NUMERIC/ARITHMETIC COMMANDS

---

kadam kadam

manish manish

namya namya

nitya nitya

shwet shw1t

16 rows selected.

SQL> select customer_name, soundex(customer_name) from customer;

CUSTOMER_NAME SOUN

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

aditya A330

akshil A240

akshit A230

aman A550

amish A520

ankit A523

anshul A524

astha A230

atif A310

faizaan F250

freya F600

CUSTOMER_NAME SOUN

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

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NAME-: NANDISH SHAH
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NUMERIC/ARITHMETIC COMMANDS

---

kadam K350

manish M520

namya N500

nitya N300

shwet S300

16 rows selected.

CHARACTER FUNCTION RETURNING NUMERIC VALUE:

23. **ASCII(STR)** : RETURNS THE ASCII VALUE OF THE STR.

```
SQL> select ascii('a') from dual;

ASCII('A')
----------
        97

SQL> select ascii('a') from dual;

ASCII('A')
----------
        97

SQL> select ascii('A') from dual;

ASCII('A')
----------
        65
```

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24.**INSTR(STR,CH)** – RETURNS THE POSITION IF FURST OCCURRENCE OF

CH IN STR.

SQL> select customer_name,instr(customer_name,'e') from customer;

CUSTOMER_NAME INSTR(CUSTOMER_NAME,'E')

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

aditya 0

akshil 0

akshit 0

aman 0

amish 0

ankit 0

anshul 0

astha 0

atif 0

faizaan 0

freya 3

CUSTOMER_NAME INSTR(CUSTOMER_NAME,'E')

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

kadam 0

manish 0

namya 0

nitya 0

shwet 4

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---

16 rows selected.

25. **INSTRB(STR1, STR2,A,B)** – same as instr except that a and the return

value are expressed as bytes.

SQL> select instrb('corporate floor','or',5,2) from dual ;

INSTRB('CORPORATEFLOOR','OR',5,2)

14

SQL> select instrb('corporate floor','or',5,2) from dual ;

INSTRB('CORPORATEFLOOR','OR',5,2)

14

26. **LENGTH(STR)** – RETURNS THE LENGTH OF STR

SQL> select customer_name,length(customer_name) from customer;

CUSTOMER_NAME	LENGTH(CUSTOMER_NAME)
aditya	20
akshil	20
akshit	20
aman	20
amish	20
ankit	20
anshul	20

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NUMERIC/ARITHMETIC COMMANDS

---

astha 20

atif 20

faizaan 20

freya 20

CUSTOMER_NAME LENGTH(CUSTOMER_NAME)

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

kadam 20

manish 20

namya 20

nitya 20

shwet 20

16 rows selected.

DATE FUNCTIONS:

27**. SYSDATE** –RETURNS THE SYSTEM DATE

SQL> select sysdate from dual;

SYSDATE

02-AUG-19

28. **ADD_MONTHS(D,N)** – ADDS OR SUBTRACTS MONTHS TO OR FROM A

DATE.

SQL> select add_months('30jan08',5) from dual;

ADD_MONTH

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NUMERIC/ARITHMETIC COMMANDS

30-JUN-08

29. ***ROUND(D,F)*** – ROUND D TO THE NEAREST DAY

SQL> select round(to_date('12jan08'),'mm') from dual;

ROUND(TO_

01-JAN-08

30. ***TRUNC(D,F)*** – RETURNS THE DATE D TRUNCATED TO UNIT SPECIFIED

BY F.

SQL> select trunc(to_date('27-oct-08','dd-mm-yyy') ,'year')from dual;

TRUNC(TO_

01-JAN-08

31. ***MONTHS_BETWEEN (D1,D2)*** – RETURNS THE NUMBER OF MONTHS

BETWEEN D1 AND D2

SQL> select months_between('12jan08','12jan09') from dual;

MONTHS_BETWEEN('12JAN08','12JAN09')

-12

32. ***LAST_DAY(D)*** – RETURNS THE DATE OF THE LAST DAY OF THE MONTH

SPECIFIED.

SQL> select sysdate,last_day(sysdate) from dual;

SYSDATE LAST_DAY(

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NUMERIC/ARITHMETIC COMMANDS

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

02-AUG-19 31-AUG-19

33.**NEXT_DAY(DATE,DAY)** – RETURNS THE DATE OF NEXT SPECIFIED DAY

OF THE WEEK AFTER THE DATE.

SQL> select sysdate,next_day(sysdate,'wednesday') from dual;

SYSDATE NEXT_DAY(

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

02-AUG-19 07-AUG-19

34. **TO_CHAR(D,F)** – CONVERTS THE DATE D TO CHARACTER FORMAT F

SQL> select sysdate,to_char(sysdate,'day')from dual;

SYSDATE TO_CHAR(S

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

02-AUG-19 friday

35. **TO_DATE(CHAR,'F')** – CONVERTS THE CHARACTER STRING DATE TO

DATE FORMAT.

SQL> select to_char(to_date('12jan08'),'rm') from dual;

TO_C

----

i

36. ***GREATEST(EXP1,EXP2)***

SQL> select greatest(10,'7',-1) from dual;

GREATEST(10,'7',-1)

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10

37. LEAST(EXP1,EXP2)

SQL> select least('abcd','abcd','a','xyz') from dual;

L

-

a

38. **NVL(COL,VAL)** – COL WITH NULL VALUES ARE IGNORED IN ALL OF THE

GROUP FUNCTION.

SQL> select account_no,balance+100,nvl(balance+100,0) from account where branch_name='sbi';

ACCOUNT_NO BALANCE+100 NVL(BALANCE+100,0)

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

10002 1600 1600

10006 3600 3600

10010 5600 5600

39.**TRANSLATE(CH, F, N)** – RETURNS CH WITH EACH F CHANGED TO N.

SQL> select customer_name, translate(customer_name,'e', '1') from customer;

CUSTOMER_NAME TRANSLATE(CUSTOMER_N

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

aditya aditya

akshil akshil

akshit akshit

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---

aman aman

amish amish

ankit ankit

anshul anshul

astha astha

atif atif

faizaan faizaan

freya fr1ya

CUSTOMER_NAME TRANSLATE(CUSTOMER_N

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

kadam kadam

manish manish

namya namya

nitya nitya

shwet shw1t

16 rows selected.

40. **DECODE(C,V1,V2)** = ALL OCCURRENCE OF V1 REPLACE BY V2 IN C

COLUMN

SQL> select branch_name, branch_city, decode(branch_city,'mardurai','usa', 'trichy', 'uk', branch_city) from branch;

BRANCH_NAME BRANCH_CITY DECODE(BRANCH_CITY,'MARDURAI',

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

icici mardurai mardurai

sbi trichy trichy

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NUMERIC/ARITHMETIC COMMANDS

---

hdfc salem salem

hsbc ahemdabad ahemdabad

pnb mumbai mumbai

iob chennai chennai

6 rows selected.

41**. UID:** RETURNS AN INTEGER THAT UNIQUELY IDENTITIES THE CURRENT

DATABASE USER.

SQL> select uid from dual;

```
     UID
----------
      91
```

42.**USER:** RETURNS A VARCHAR2 VALUE CONTAINING THE NAME OF THE

CURRENT ORACLE USER.

SQL> select uid,user,userenv('language') from dual;

```
     UID USER
---------- ------------------------------
USERENV('LANGUAGE')
----------------------------------------------------
      91 NANDU
AMERICAN_AMERICA.WE8MSWIN1252
```