**VIT-AP UNIVERSITY, Amaravathi**

**School of CSE**

**DBMS Lab Sheet – Single row and Group Function Queries**

**Single Row Functions**

* returns only one value for every row.
* Can be used in SELECT command and included in WHERE clause
* Types
  + Date functions Numeric
  + functions Character
  + functions Conversion
  + functions Miscellaneous
  + functions

**Find the query and output for the given single row and group functions**

**Example:**

**Query:**

SELECT ABS(-15) "Absolute" FROM DUAL;

**Output:**

Absolute

15

**Online references:**

[**https://docs.oracle.com/database/121/SQLRF/functions002.htm#SQLRF20032**](https://docs.oracle.com/database/121/SQLRF/functions002.htm#SQLRF20032)

[**https://www.tutorialspoint.com/sql\_certificate/using\_single\_row\_functions.htm**](https://www.tutorialspoint.com/sql_certificate/using_single_row_functions.htm)

**Queries to find:**

**Numeric functions:**

**Syntax Description**

abs ( ) Returns the absolute value

ceil ( ) Rounds the argument

cos ( ) Cosine value of argument

cosh( ) Hyperbolic cos

exp ( ) Exponent value

floor( ) Truncated value

power (m,n) N raised to m

mod (m,n) Remainder of m / n

round (m,n) Rounds m’s decimal places to n

trunc (m,n) Truncates m’s decimal places to n

sqrt (m) Square root value

**Character Functions:**

**Syntax Description**

initcap (char) Changes first letter to capital

lower (char) Changes to lower case

upper (char) Changes to upper case

ltrim ( char, set) Removes the set from left of char

rtrim (char, set) Removes the set from right of char

translate(char, from, to) Translate ‘from’ anywhere in char to ‘to’

replace(char, search string, replace string) Replaces the search string to new

substring(char, m , n) Returns chars from m to n length

lpad(char, length, special char) Pads special char to left of char to Max of length

rpad(char, length, special char) Pads special char to right of char to Max of length

chr(number) Returns char equivalent

length(char) Length of string

decode(column name, col value, replace value) Changes column values from specified

value to new

|| Concatenation of strings

**Date functions:**

**Syntax Description**

add\_months(date,no. of months) Return the date after adding the number of months

last\_day(date) Returns the last date corresponding to the last day of the month

months\_between(date1,date2)

Returns the numeric value of the difference between the months.

round(date, [format] )

Format – ‘day’, ‘month’ , ‘year’ rounded tothe nearest format specified

next\_day(date, day) Returns the next date of the day

trunc(date, [format] )

Format – ‘day’, ‘month’ , ‘year’

Day – previous nearest Sunday

Month – start date of the month

Year – start date of the year

greatest(date1, date2,…) Returns the latest date

new\_time(date, ‘this’, ‘other’)

New\_time(date, ’est’, ‘yst’) converts date from one time zone to another

**Conversion functions:**

**Syntax Description**

to\_char(date, format) Converts date to specified format string

to\_date(char,format) Converts string to date format

to\_number(char) Converts a numerical string to number

**Miscellaneous functions**

**Syntax Description**

uid Integer value of login

user Username

nvl (column name, new value) Replaces null values to new value in the column specified

vsize(value) Returns number of bytes in value

**Group functions:**

Result based on group of rows.

**Syntax Description**

count (\*),

count (column name),

count (distinct column name)

Returns number of rows

min (column name) Min value in the column

max (column name) Max value in the column

avg (column name) Avg value in the column

sum (column name) Sum of column values

stdev(column name) Standard deviation value

variance(column name) Variance value