

## Experiment – 2.1 : Experiment with the following: Common number functions

**Numeric Functions** are used to perform operations on numbers and return numbers. Following are the numeric functions defined in SQL:

**ABS():** Returns the absolute (positive) value of a numeric expression.

```
SELECT ABS(-10); -- Result: 10
```

**ROUND():** Rounds a numeric value to a specified number of decimal places.

```
SELECT ROUND(12.345, 2); -- Result: 12.35
```

**CEIL() or CEILING():** Returns the smallest integer greater than or equal to a given value.

```
SELECT CEIL(3.14); -- Result: 4
```

**FLOOR():** Returns the largest integer less than or equal to a given value.

```
SELECT FLOOR(3.99); -- Result: 3
```

**SQRT():** Returns the square root of a numeric value.

```
SELECT SQRT(25); -- Result: 5
```

**POWER() or POW():** Returns a numeric value raised to a specified power.

```
SELECT POWER(2, 3); -- Result: 8
```

**MOD():** Returns the remainder of a division operation.

```
SELECT MOD(10, 3); -- Result: 1
```

**EXP():** Returns the value of the mathematical constant 'e' raised to a specified power.

```
SELECT EXP(1); -- Result: 2.71828 (approximately) SELECT RAND(); -- Result: A random float between 0 and 1
```

**LOG():** Returns the natural logarithm of a numeric value.

```
SELECT LOG(10); -- Result: 2.30259 (approximately)
```

**LOG10():** Returns the base-10 logarithm of a numeric value.

```
SELECT LOG10(100); -- Result: 2
```

**RAND():** Generates a random float value between 0 and 1.

```
SELECT RAND(); -- Result: A random float between 0 and 1
```

**SIGN():** Returns the sign of a numeric value (-1 for negative, 0 for zero, 1 for positive).

```
SELECT SIGN(-5); -- Result: -1
```

**TRUNCATE():** Truncates a numeric value to a specified number of decimal places without rounding.

```
SELECT TRUNCATE(12.345, 2); -- Result: 12.34
```