**SQL and Python Pre Screening Test**

**This document contains some SQL and Python questions which require you to write the queries and output.**

**NOTE-**

**1. The questions are self explanatory, in case of any assumptions, please write it down under each specific question.**

**2. Write the queries in an optimized manner.**

**3. You will be allotted 40 minutes to complete this test.**

**4. Read the questions very carefully, before attempting.**

**6. Turn on your camera, share your screen and open this document. Nothing outside should be referred to. Focus should be there on the document and camera**

**7. Do not use Google or any other search engine to find answers. Any such activity noticed would lead to disqualification.**

**8. This test would be monitored by our HR team. Strictly stay focussed to camera and your document.**

**SQL Questions-**

Q1. There are 2 tables namely- table\_a and table\_b which have a common id column and have some dummy values.

table\_a table\_b

id id

1 1

1 1

1 1

Null

1. Write a query to get all the columns from table\_A and table\_b using inner join
2. Write down the output of the above query in terms of number of rows and for different type of joins - left, right, cross, full (whatever you know)
3. What is the difference between Join and Inner Join. Left and Left Outer Join. Write down the number of rows.

Ans 1

Q2. There are two tables namely- employee and department with the following below column structure and values.

employee

emp\_Id emp\_name salary dept\_id

1 Ravi 100 1

2 Seema 200 2

3 Rahul 100 1

4 Shreya 200 1

5 Ramesh 300 2

6 Raj 300 2

7 Sonu 400 3

department

dept\_Id dept\_name

1 IT

2 HR

3 Sales

1. Write down output with 3 more columns for the employee table for the analytical functions- Rank(), Dense\_Rank() and Row\_Number()
2. Write down the query to find all the employees whose salary is between 200 and 300
3. Write down the query to find the name of the employees that begin with ‘R’
4. Write a query to retrieve departments who have less than 2 employees working in it.

Ans 2

**Q.3. Python questions**

(a). Write a loop to print all the list elements which are <100. a = [1,3,56,700,23,134].

(b). Write a loop to iterate over the salary list if the list element is integer , stop the loop when the list element is non-integer and print (“list contains non-integer value”).

(c). Write a function with 1 parameter– number,it shall return both the square and cube of that number. Call the function and pick only cube values from the output.

Ans