Course: **Natural Language Processing [A]** 06-July-2023 **(Spring 2023)**

Resource Person: **Muhammad Shakeel** **QUIZ – 2 (Minimum Edit Distance)**

Total Points: 10

SOLUTION

a. Find the Minimum Edit Distance using the Levenshtein Distance algorithm when the string **"FRESH"** is converted into the string **"FRIED".** **[5]**

b. Also, show the complete backtrace of the edit operations. **[5]**

	#	F	R	I	E	D
#	**0**	← **1**	← **2**	← **3**	← **4**	← **5**
F	↑ **1**	↖ 0	← 1	← 2	← 3	← 4
R	↑ **2**	↑ 1	↖ 0	← 1	← 2	← 3
E	↑ **3**	↑ 2	↑ 1	↖ 2	↖ 1	← 2
S	↑ **4**	↑ 3	↑ 2	↖ 3	↑ 2	↖ 3
H	↑ **5**	↑ 4	↑ 3	↖ 4	↑ 3	↖ **4**

The final minimum distance value = 4.

The complete backtrace is highlighted in RED.

END OF QUIZ SOLUTION