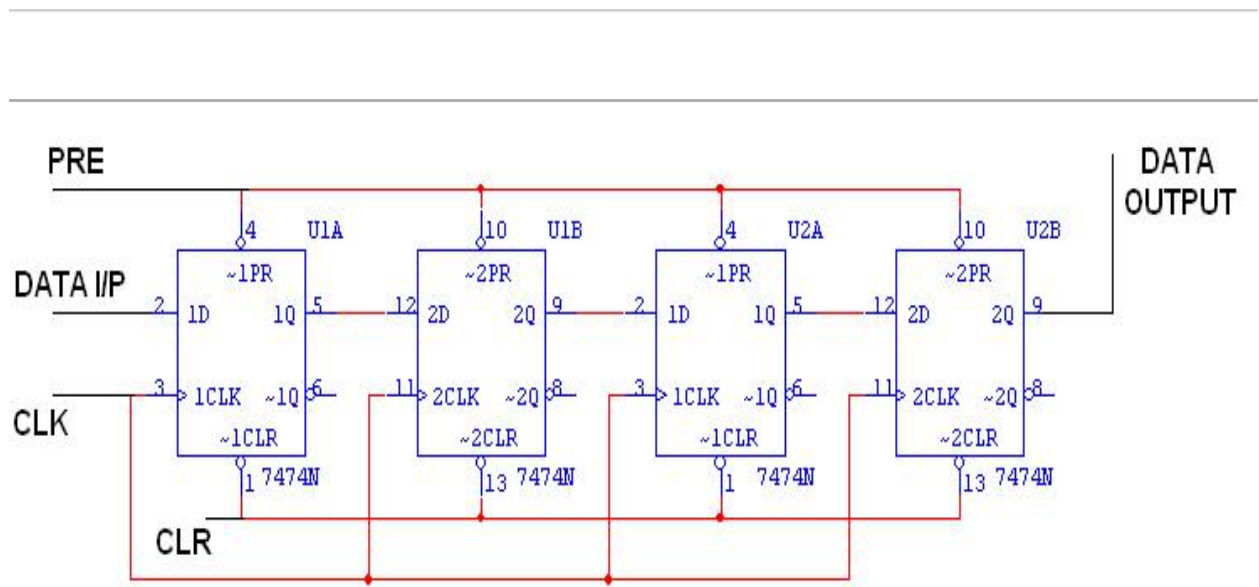


Name: Changaiz khan

ID:13206

To Design and verify the function of Truth Table Observation Table: Objective: •  
To investigate the operation of the shift registers

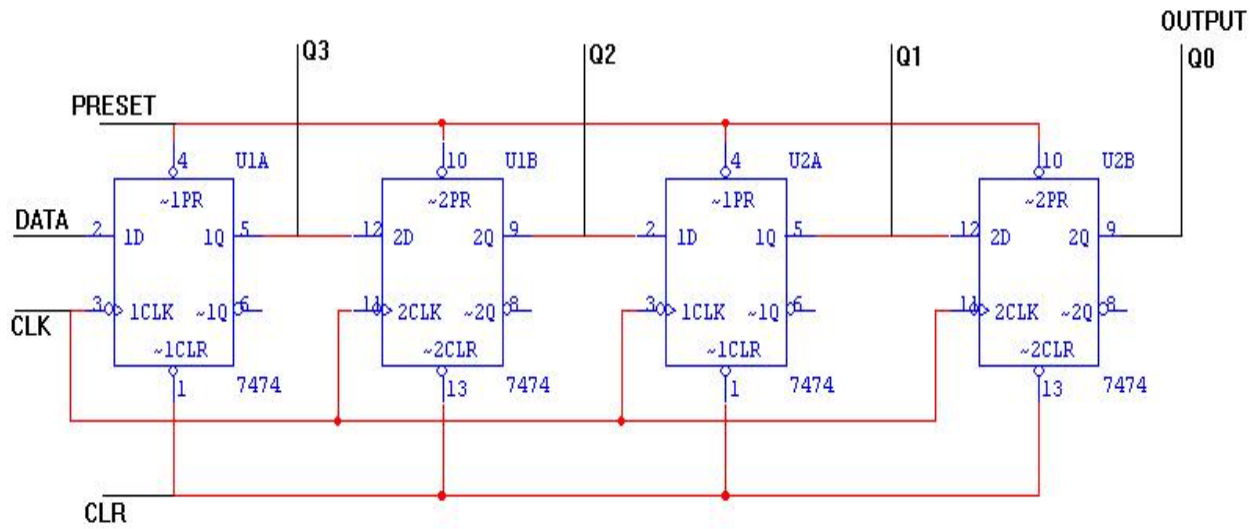
**SERIAL IN SERIAL OUT:**



**Truth Table for SERIAL IN SERIAL OUT:**

CLK	Serial in	Serial out
1	1	0
2	0	0
3	0	0
4	1	1
5	x	0
6	x	0
7	x	1

**SERIAL IN PARALLEL OUT:**

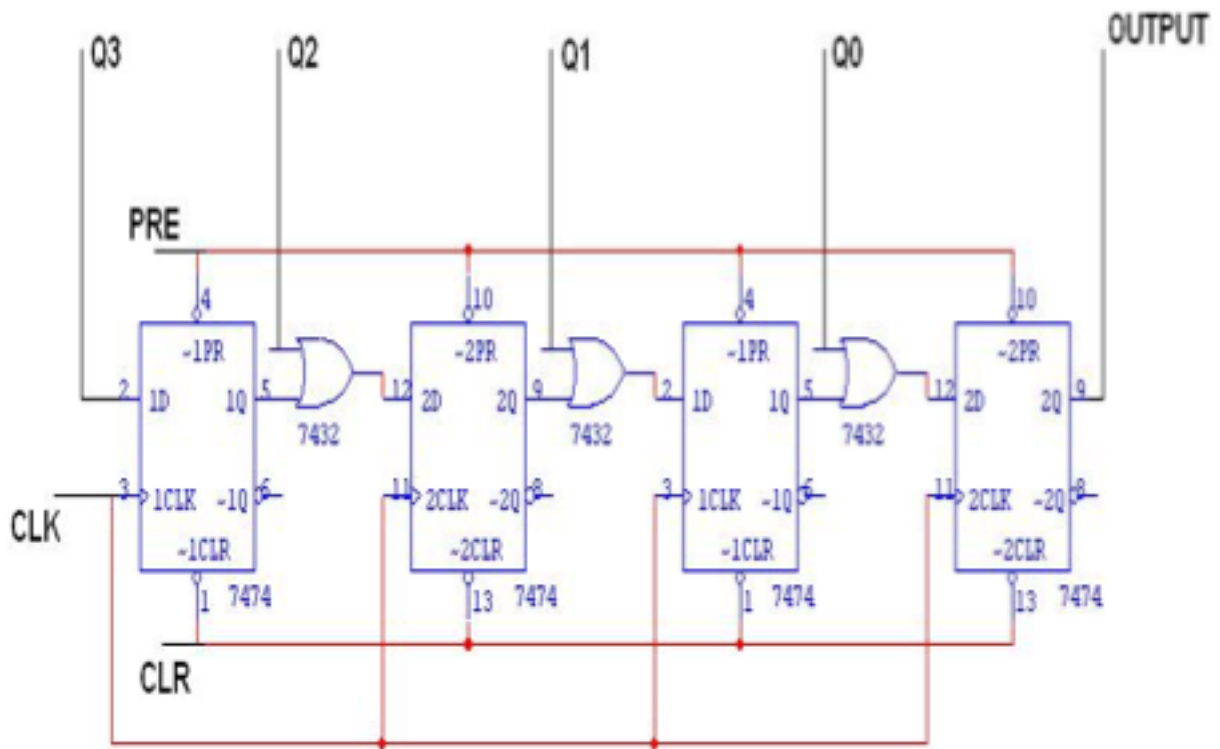


**Truth Table for SERIAL IN PARALLEL OUT:**

**OUTPUT**

CLK	DATA	Q <sub>A</sub>	Q <sub>B</sub>	Q <sub>C</sub>	Q <sub>D</sub>
1	1	1	0	0	0
2	0	0	1	0	0
3	0	0	0	1	1
4	1	1	0	0	1

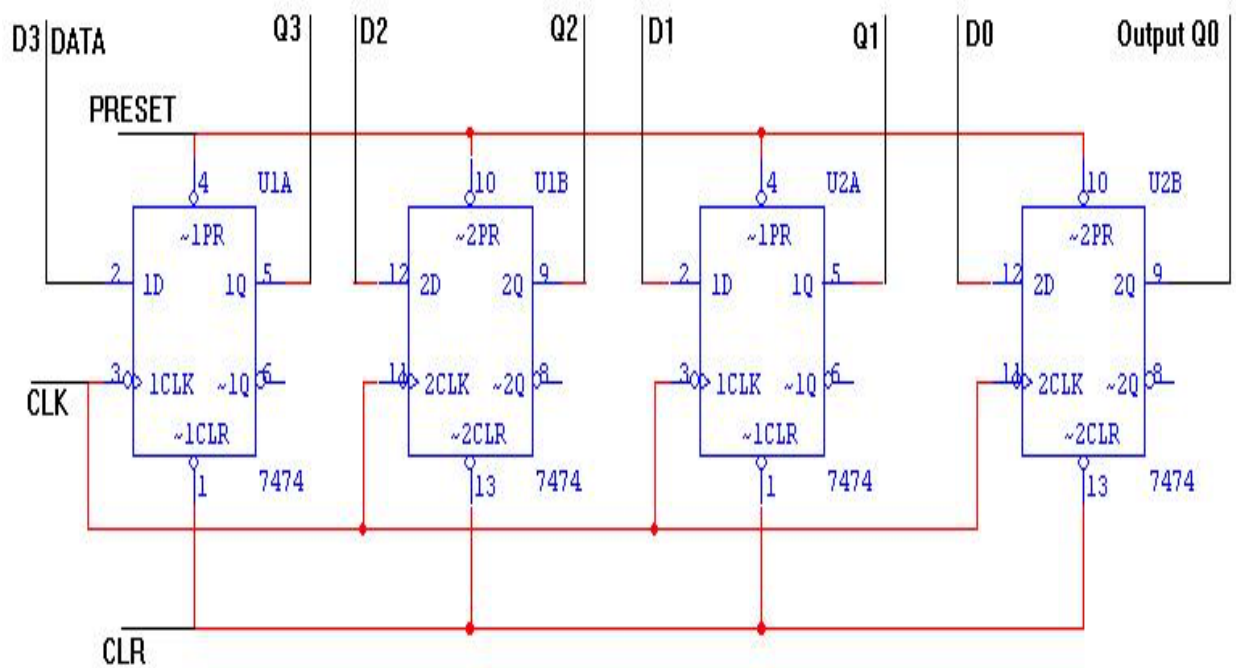
**PARALLEL IN SERIAL OUT:**



**Truth Table for PARALLEL IN SERIAL OUT:**

CLK	Q3	Q2	Q1	Q0	O/P
0	1	0	0	1	1
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	1

**PARALLEL IN PARALLEL OUT:**



**Truth table for PARALLEL IN PARALLEL OUT:**

CLK	DATA INPUT				OUTPUT			
	DA	DB	DC	DD	QA	QB	QC	QD
1	1	0	0	1	1	0	0	1
2	1	0	1	0	1	0	1	0