8.1

Optimal Sum of Products: $Z = S1 + S2S3 + S2S4$

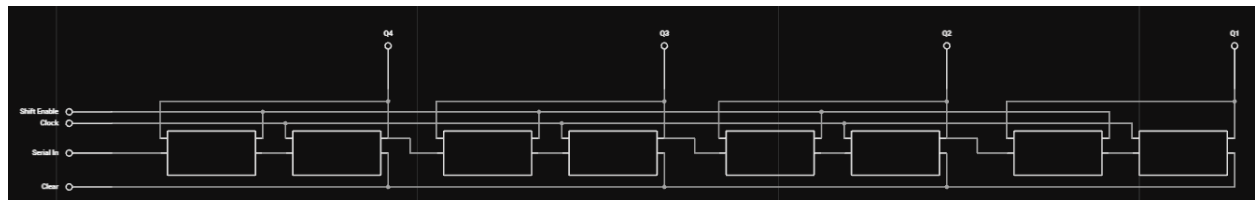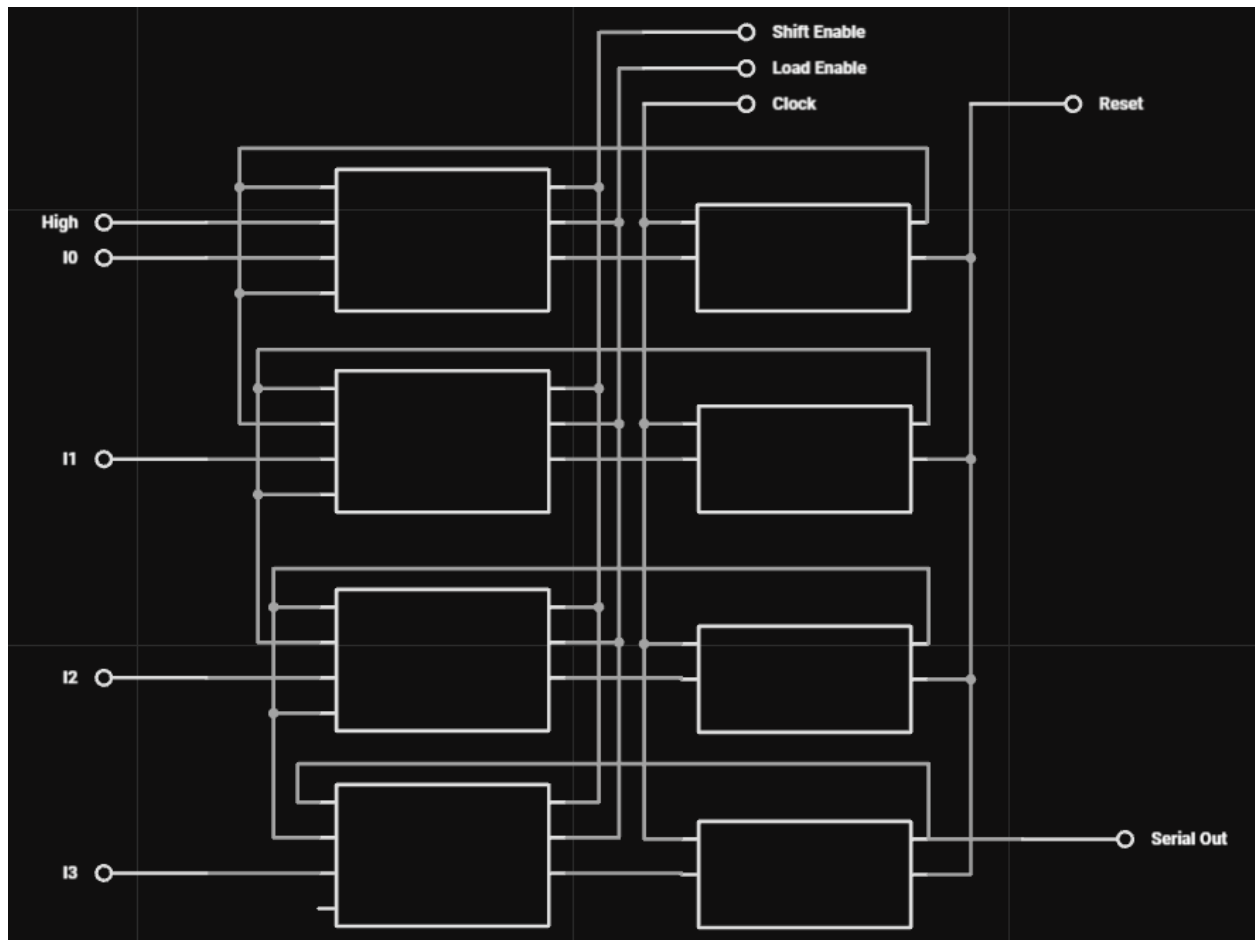| Truth Table			K-Map	z = S1 + S2S3 + S2S4			
S1S2S3S4	Z		S1S2 \ S3S4	00	01	10	11
0000	0		00	0	0	0	0
0001	0		01	0	1	1	1
0010	0		10	1	1	1	1
0011	0		11	1	1	1	1
0100	0						
0101	1						
0110	1						
0111	1						
1000	1						
1001	1						
1010	1						
1011	1						
1100	1						
1101	1						
1110	1						
1111	1						

8.2.1
[Flux Schematic](#)
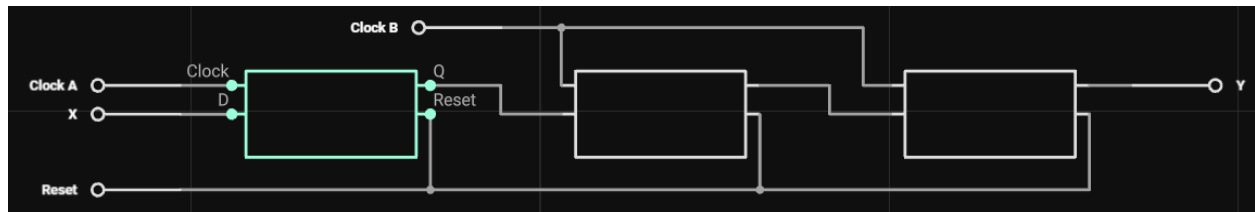
8.2.2
[Flux Schematic](#)

8.2.3
[Flux Schematic](#)

8.3

Moore Machine

A: 0	B: 0	D: 0
E: 1	D: 0	

0 (self loop on A)
1 (A → B)
0 (B → A)
1 (B → D)
1 (self loop on D)
↑0
0
0 (D: 0 → E: 1)
0 (D → D)
1 (E: 1 → D: 0)

Mealy Machine

A	B	
D	C	

0/0 (self loop on A)
1/0 (A → B)
0/0 (B → A)
↑0/0
1/1
↑1/0 ↓1/0
← 0/0