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Lab 2:
　　　　ABC
Y → 0 0 0
O → 0 0 1
**　→ 0 1 0**
K → 0 1 1
E → 1 0 0
V → 1 0 1
I → 1 1 0
N → 1 1 1

Truth Table:

A	B	C	Seg0	Seg1	Seg2	Seg3	Seg4	Seg5	Seg6
0	0	0	0	1	1	1	0	1	1
0	0	1	1	1	1	1	1	1	0
0	1	0	0	0	0	0	0	0	0
0	1	1	0	1	1	0	1	1	1
1	0	0	1	0	0	1	1	1	1
1	0	1	0	0	1	1	1	0	0
1	1	0	0	0	0	0	1	1	0
1	1	1	0	0	1	0	1	0	1

K – Maps:

Seg0:

AB \ C	00	01	11	10
0	0	0	0	1
1	1	0	0	0

　　　Seg0 = A'B'C + AB'C'

Seg1:

AB \ C	00	01	11	10
0	1	0	0	0
1	1	1	0	0

　　　Seg1 = A'B' + A'C

Seg2:

AB C	00	01	11	10
0	1	0	0	0
1	1	1	1	1

Seg2 = A'B' + C

Seg3:

AB C	00	01	11	10
0	1	0	0	1
1	1	0	0	1

Seg3 = B'

Seg4:

AB C	00	01	11	10
0	0	0	1	1
1	1	1	1	1

Seg4 = A + C

Seg5:

AB C	00	01	11	10
0	1	0	1	1
1	1	1	0	0

Seg5 = A'B' + AC' + A'C

Seg6:

AB C	00	01	11	10
0	1	0	0	1
1	0	1	1	0

Seg6 = CB + C'B'

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Circuits:

Seg0:

Seg1:

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Seg2:

Seg3:

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Seg4:

Seg5:

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Seg6:

Main:

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Y: 000

O: 001

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Space: 010

K: 011

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E: 100

V: 101

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I: 110

N: 111