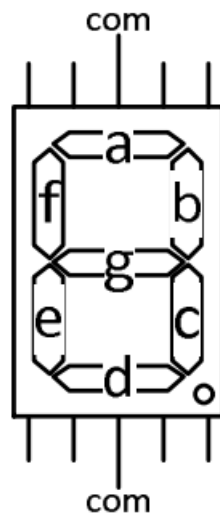In the name of God

m.amin.allahrabi

ID:97213002

Report No:5
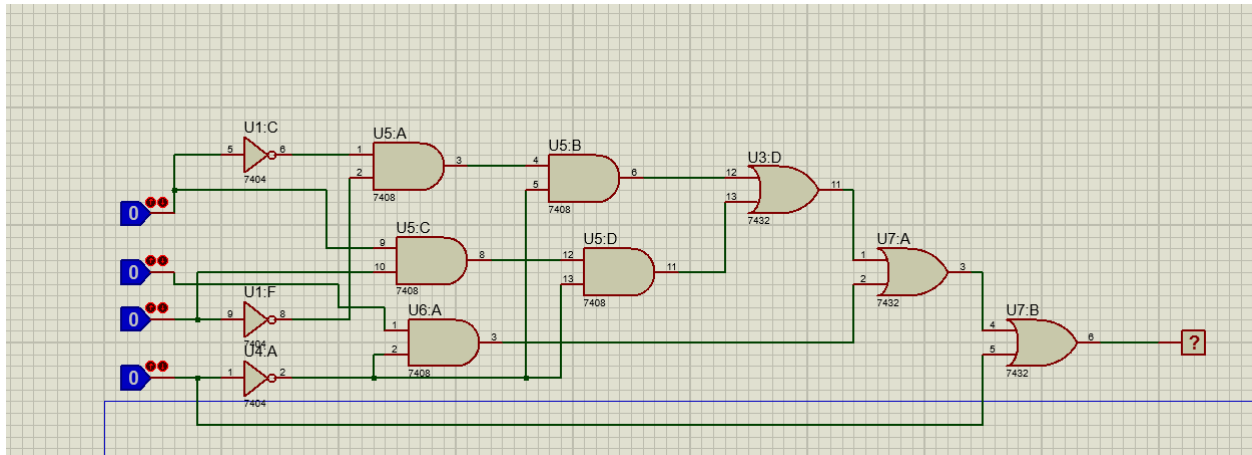
Seven Segment

Function and truth table for turning on (a) in seven segment:
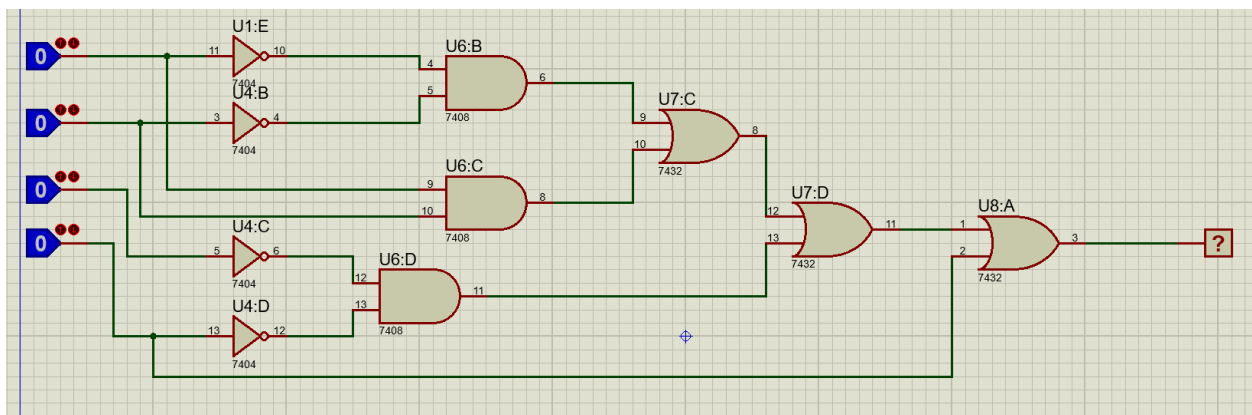
a				BA	0,0	0,1	11	10
F=m	(0,2,3,5,6,7,8,9)							
	D+D'C'A'+BD'+AD'C		DC	0,0	1	0	1	1
				0,1	0	1	1	1
				11	*	*	*	*
				10	1	1	*	*

Proteus implement:

Function and truth table for turning on (b) in seven segment:

b				BA	0,0	0,1	11	10
F=m	(0,1,2,3,4,7,8,9)							
	D'C'+D+A'B'+AB		DC	0,0	1	1	1	1
				0,1	1	0	1	0
				11	*	*	*	*
				10	1	1	*	*

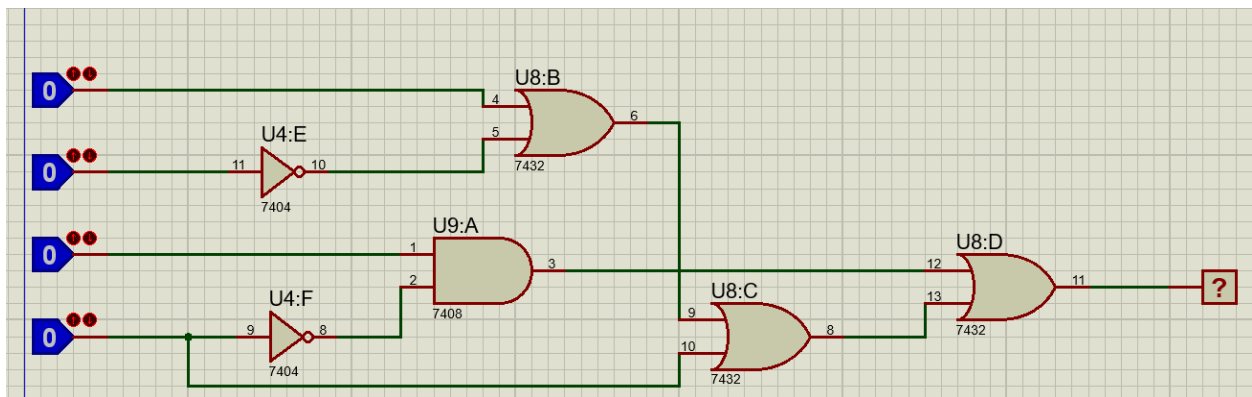## Function and truth table for turning on (c) in seven segment:
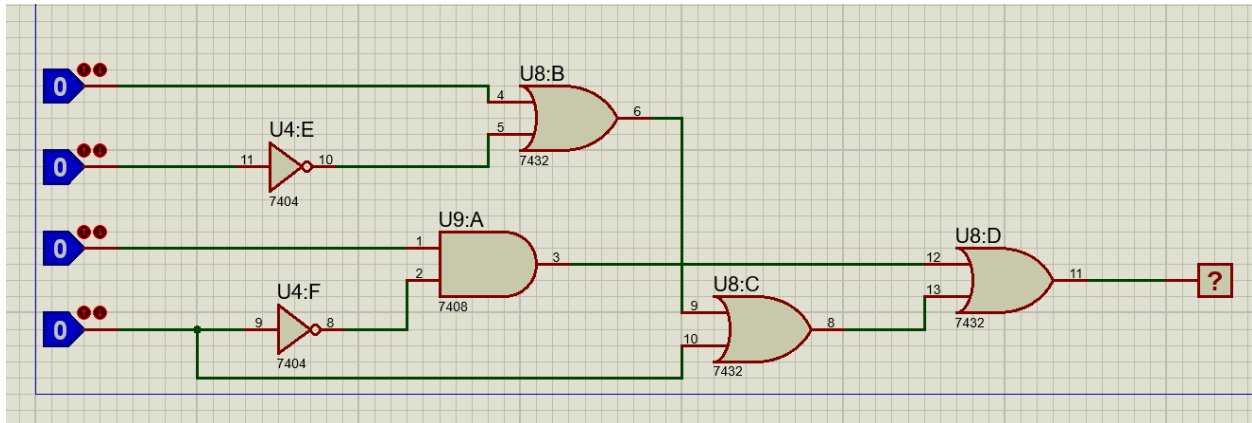
Function and truth table for turning on (c) in seven segment:

c								
F=m	(0,1,3,4,5,6,7,8,9)				BA	0,0	0,1	11	10
	D+D'C+B'+A			DC	0,0	1	1	1	0
					0,1	1	1	1	1
					11	*	*	*	*
					10	1	1	*	*

Function and truth table for turning on (d) in seven segment:

d				BA	0,0	0,1	11	10
F=m	(0,2,3,5,6,8)			DC 0,0	1	0	1	1
	BA'+BD'C'+B'A'C'+B'AD'C	DC		0,1	0	1	0	1
				11	*	*	*	*
				10	1	0	*	*
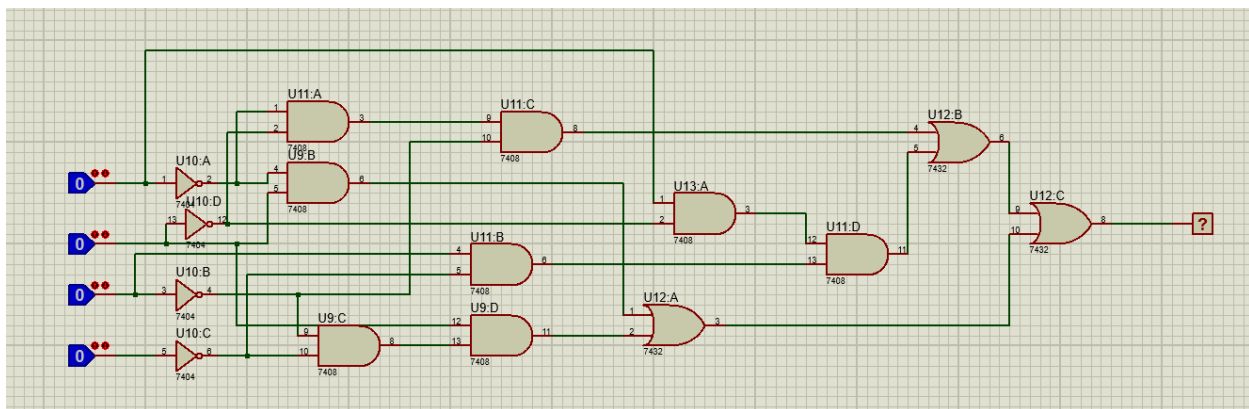
Function and truth table for turning on (e) in seven segment:

e				BA	0,0	0,1	11	10
F=m	(0,2,6,8)			DC 0,0	1	0	0	1
	BA'+C'B'A'+DC'A'	DC		0,1	0	0	0	1
				11	*	*	*	*
				10	1	0	*	*
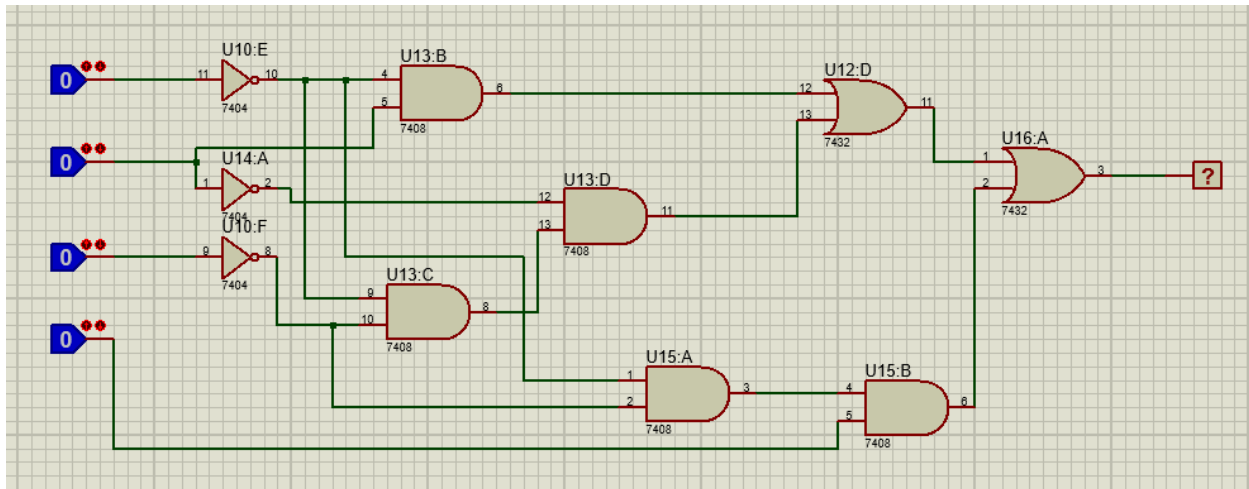
Function and truth table for turning on (f) in seven segment:

f				BA	0,0	0,1	11	10
F=m	(0,4,5,6,8,9)			DC				
	D+B'A'D'+D'C(B'+A')		DC	0,0	1	0	0	0
				0,1	1	1	0	1
				11	*	*	*	*
				10	1	1	*	*
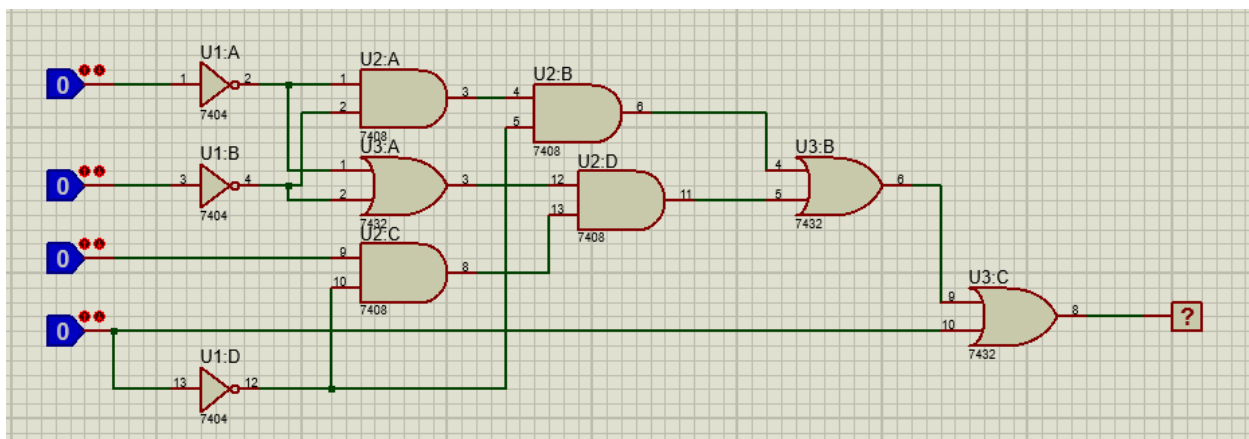
Function and truth table for turning on (g) in seven segment:

g				BA	0,0	0,1	11	10
F=m	(2,3,4,5,6,8,9)		DC	0,0	0	0	1	1
	D+CB'+BA'+D'C'B			0,1	1	1	0	1
				11	*	*	*	*
				10	1	1	*	*

Github : https://github.com/aminallahrabi/circuit-sevensegment