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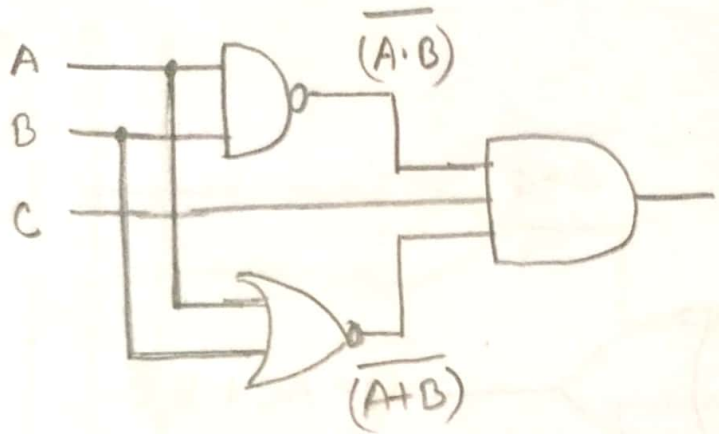
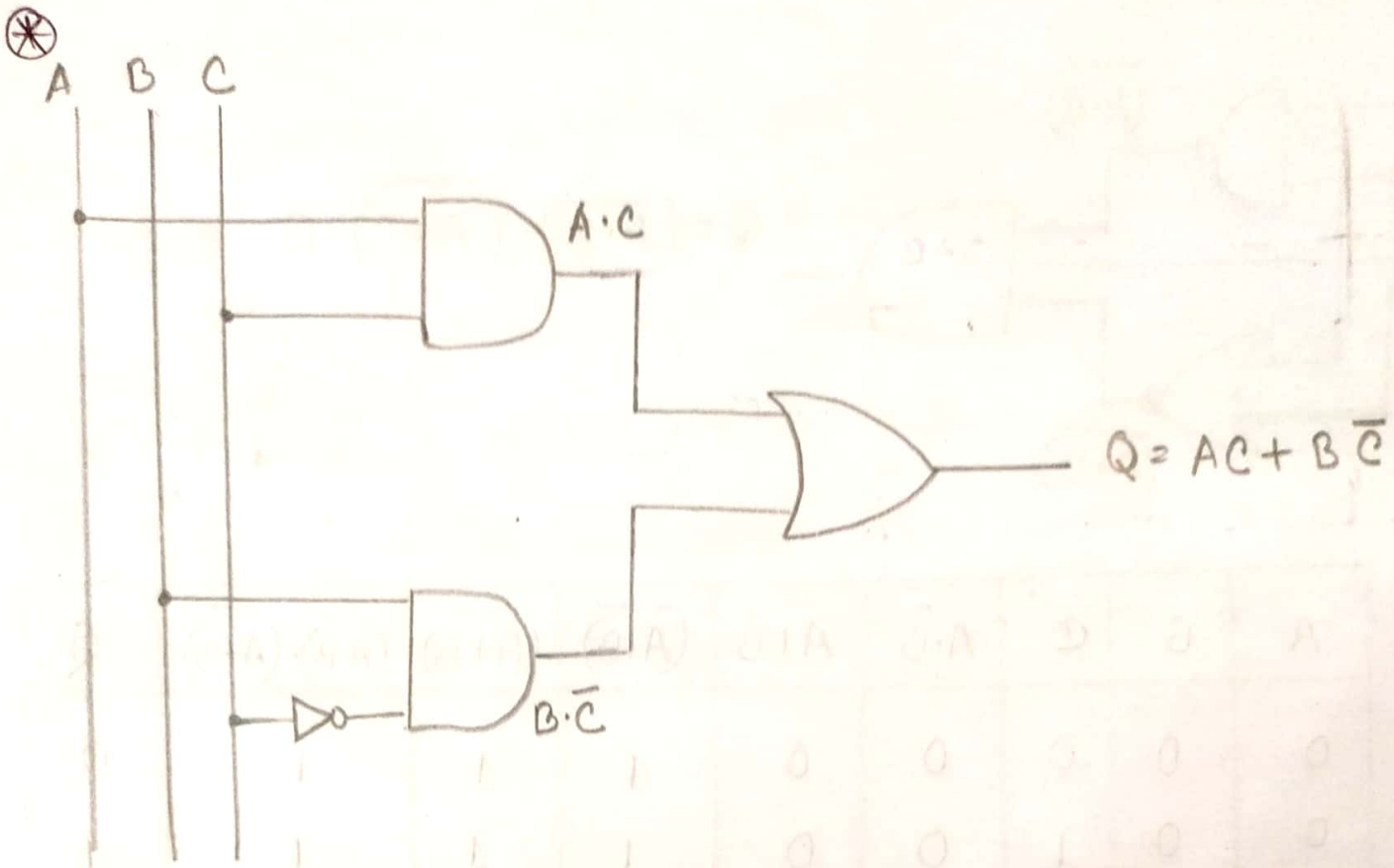


$$Q = (\overline{A \cdot B}) \cdot (\overline{A+B}) \cdot C$$

Truth table:

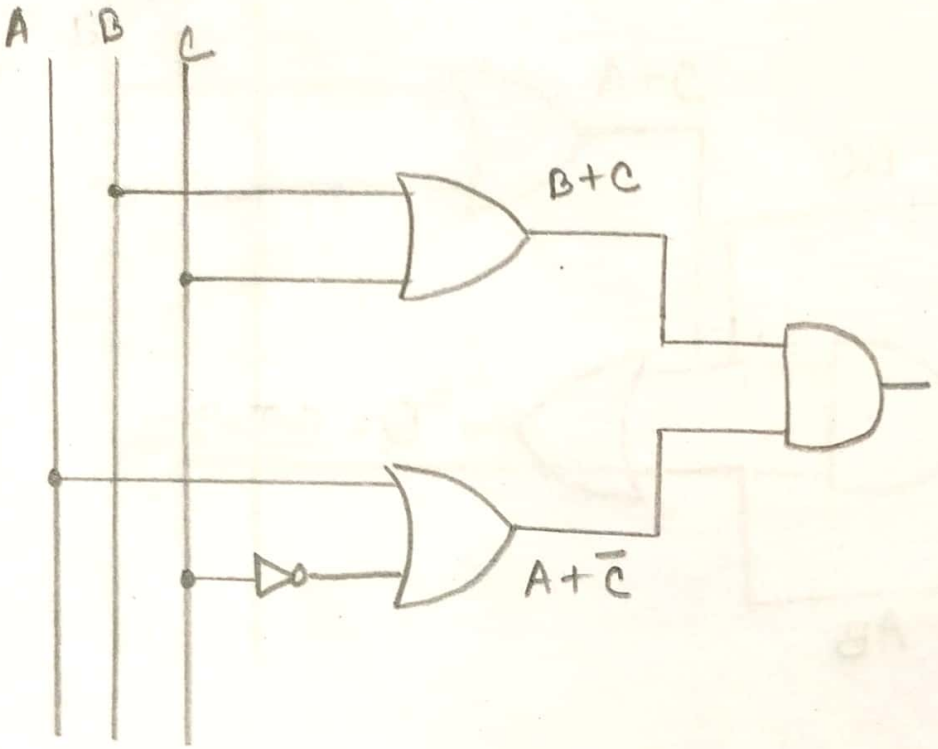
A	B	C	A·B	A+B	$\overline{(A \cdot B)}$	$\overline{(A+B)}$	$\overline{(A \cdot B)} \cdot \overline{(A+B)}$	Q
0	0	0	0	0	1	1	1	0
0	0	1	0	0	1	1	1	1
0	1	0	0	1	1	0	0	0
0	1	1	0	1	1	0	0	0
1	0	0	0	1	1	0	0	0
1	0	1	0	1	1	0	0	0
1	1	0	1	1	0	0	0	0
1	1	1	1	1	0	0	0	0



Truth table:

A	B	C	AC	$\bar{C}$	$B\bar{C}$	$AC+B\bar{C}$
0	0	0	0	1	0	0
0	0	1	0	0	0	0
0	1	0	0	1	1	1
0	1	1	0	0	0	0
1	0	0	0	1	0	0
1	0	1	1	0	0	1
1	1	0	0	1	1	1
1	1	1	1	0	0	1

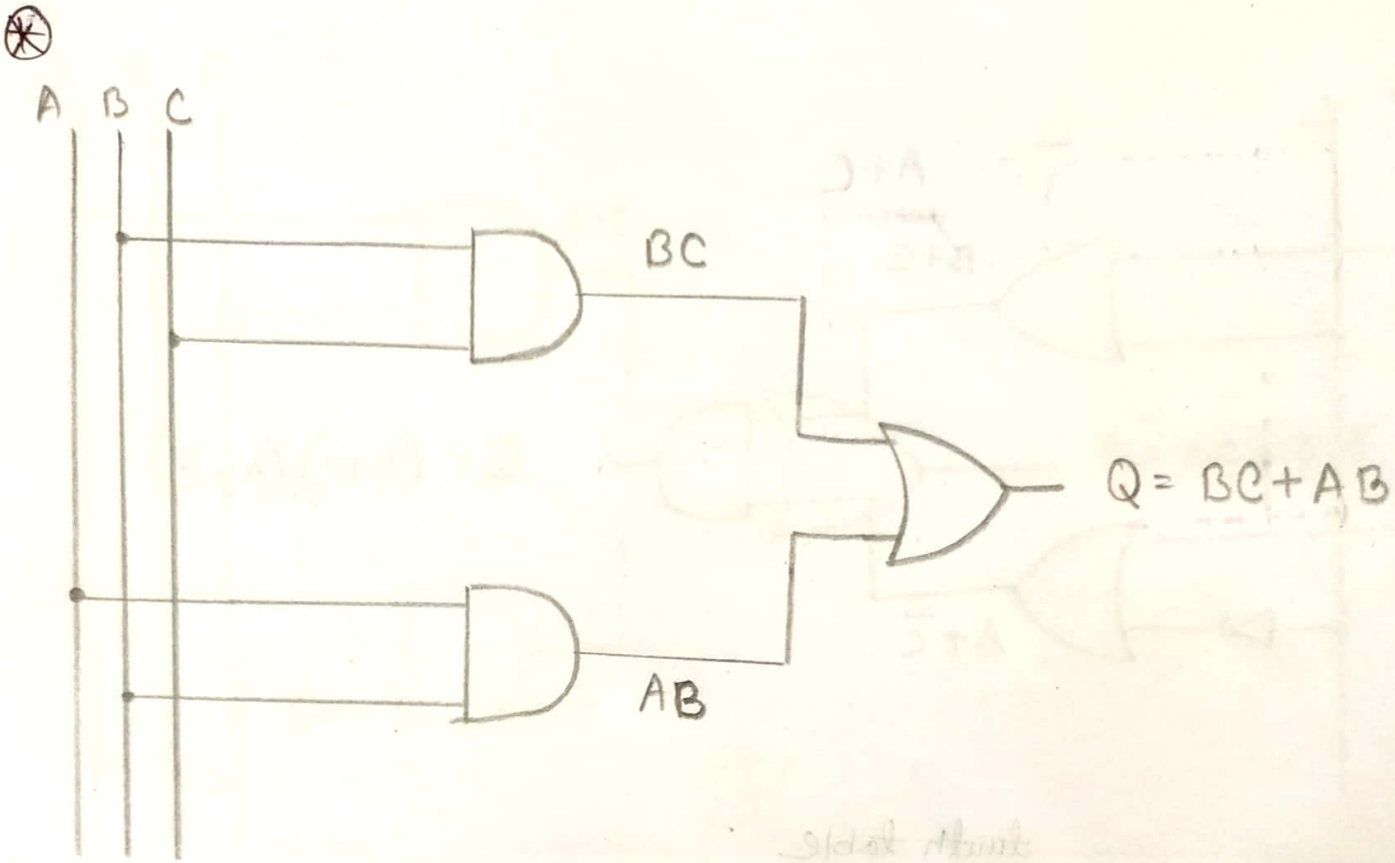
(*)



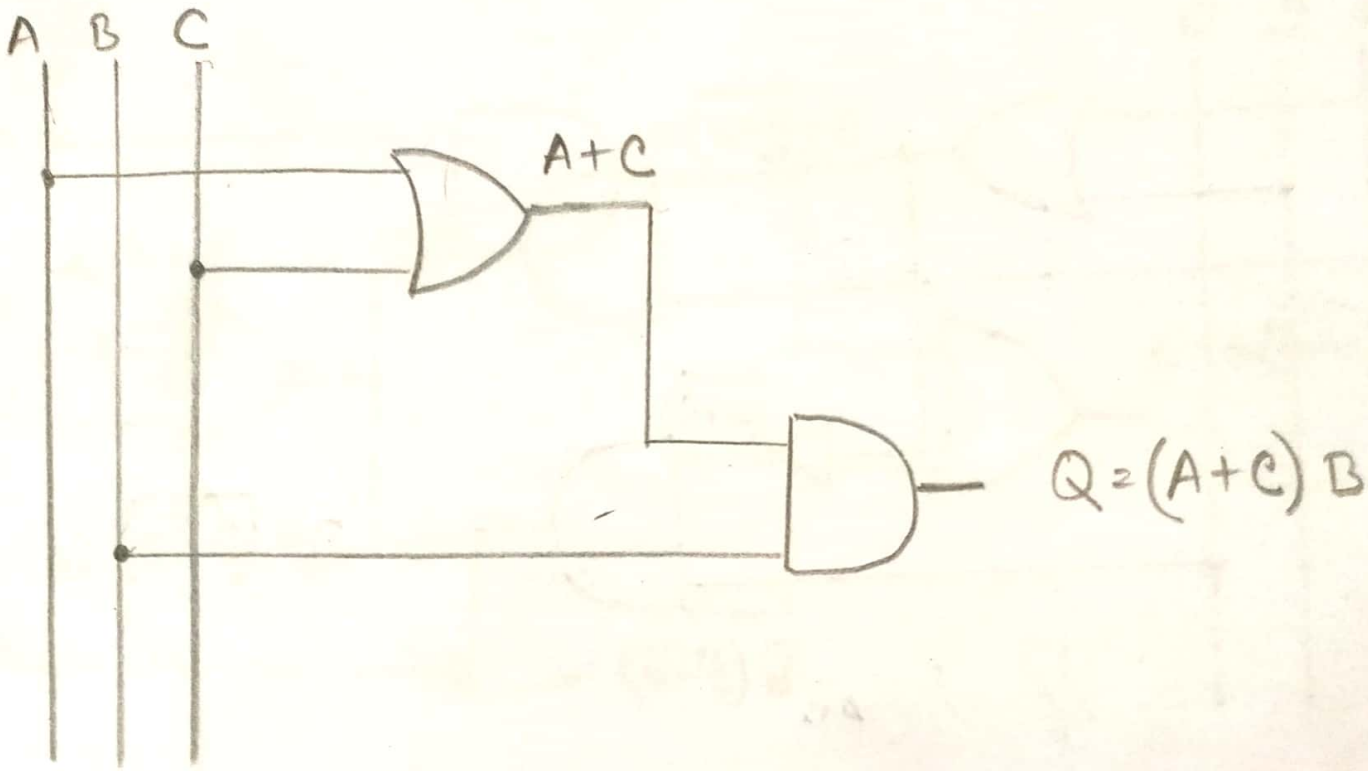
$Q = (B+C)(A+\bar{C})$

truth table

A	B	C	$\bar{C}$	B+C	A+$\bar{C}$	(B+C)(A+$\bar{C}$)
0	0	0	1	0	1	0
0	0	1	0	1	0	0
0	1	0	1	1	1	1
0	1	1	0	1	0	0
1	0	0	1	0	1	0
1	0	1	0	1	1	1
1	1	0	1	1	1	1
1	1	1	0	1	1	1

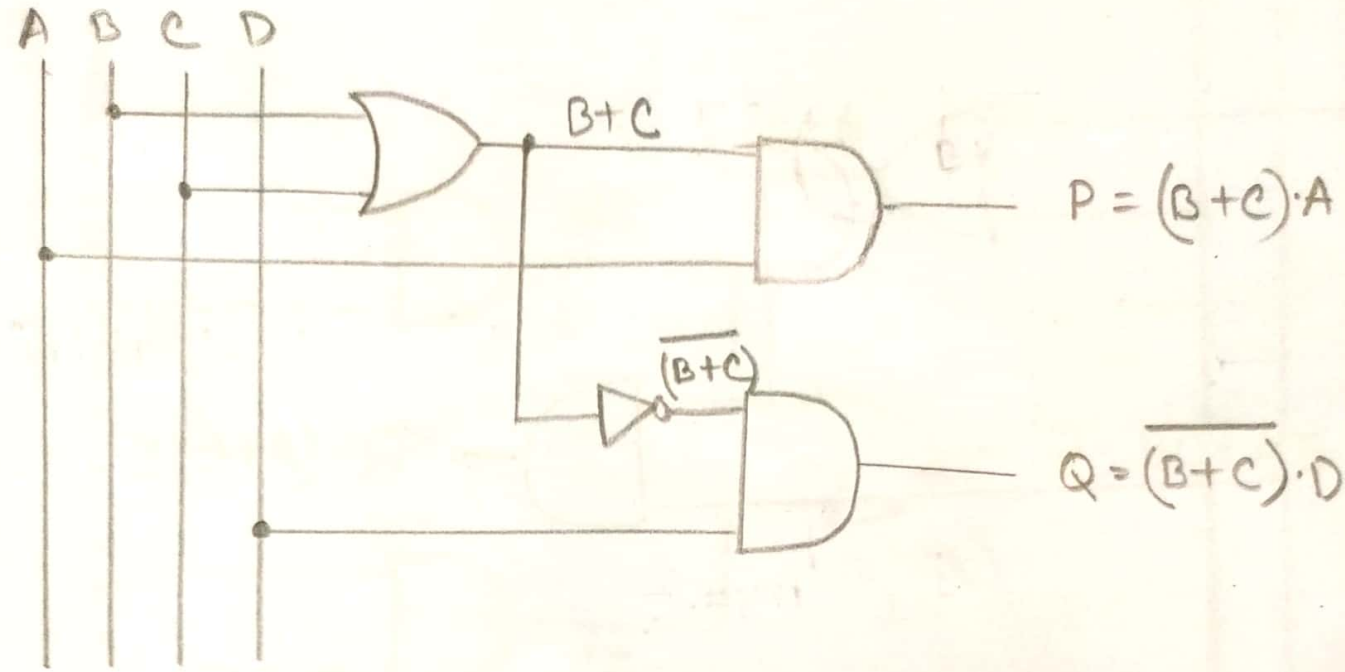


A	B	C	BC	AB	BC+AB
0	0	0	0	0	0
0	0	1	0	0	0
0	1	0	0	0	0
0	1	1	1	0	1
1	0	0	0	0	0
1	0	1	0	0	0
1	1	0	0	1	1
1	1	1	1	1	1



Truth table :-

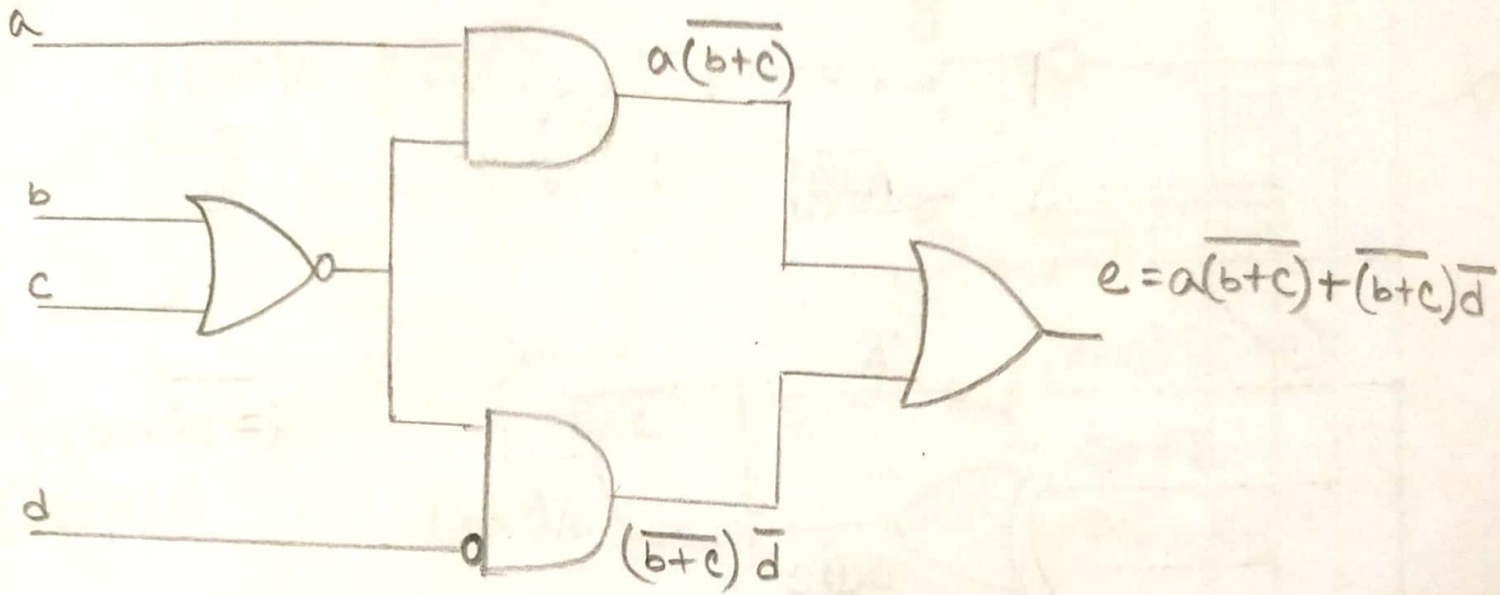
A	B	C	A+C	(A+C)B
0	0	0	0	0
0	0	1	1	0
0	1	0	0	0
0	1	1	1	1
1	0	0	1	0
1	0	1	1	0
1	1	0	1	1
1	1	1	1	1



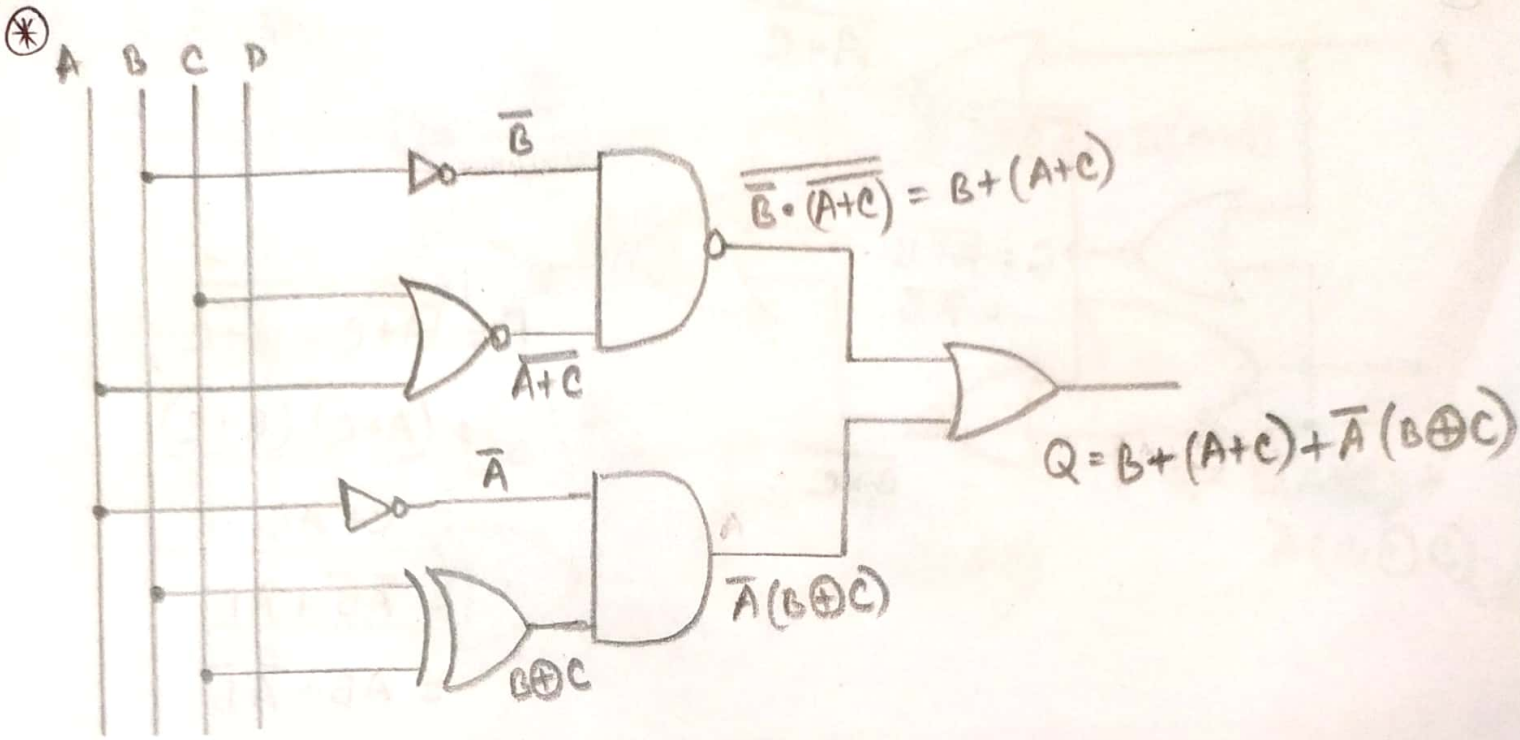
Truth table :-

A	B	C	D	B+C	$\overline{(B+C)}$	P	Q
0	0	0	0	0	1	0	0
0	0	0	1	0	1	0	1
0	0	1	0	1	0	0	0
0	0	1	1	1	0	0	0
0	1	0	0	1	0	0	0
0	1	0	1	1	0	0	0
0	1	1	0	1	0	0	0
0	1	1	1	1	0	0	0
1	0	0	0	0	1	0	0
1	0	0	1	0	1	0	1
1	0	1	0	1	0	1	0
1	0	1	1	1	0	1	0
1	1	0	0	1	0	1	0
1	1	0	1	1	0	1	0
1	1	1	0	1	0	1	0
1	1	1	1	1	0	1	0

(*)

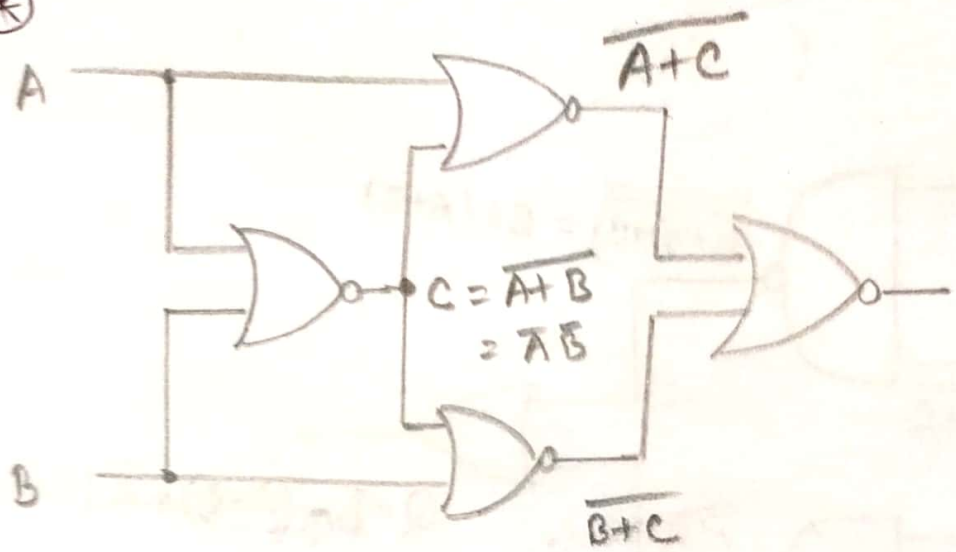


a	b	c	d	$\overline{d}$	b+c	$\overline{(b+c)}$	$a\overline{(b+c)}$	$\overline{(b+c)}\cdot\overline{d}$	e
0	0	0	0	1	0	1	0	1	1
0	0	0	1	0	0	1	0	0	0
0	0	1	0	1	1	0	0	0	0
0	0	1	1	0	1	0	0	0	0
0	1	0	0	1	1	0	0	0	0
0	1	0	1	0	1	0	0	0	0
0	1	1	0	1	1	0	0	0	0
0	1	1	1	0	1	0	0	0	0
1	0	0	0	1	0	1	1	1	1
1	0	0	1	0	0	1	1	0	1
1	0	1	0	1	1	0	0	0	0
1	0	1	1	0	1	0	0	0	0
1	1	0	0	1	1	0	0	0	0
1	1	0	1	0	1	0	0	0	0
1	1	1	0	1	1	0	0	0	0
1	1	1	1	0	1	0	0	0	0



A	B	C	$\overline{A}$	$B \oplus C$	$\overline{A}(B \oplus C)$	A+B+C	Q
0	0	0	1	0	0	0	0
0	0	1	1	1	1	1	1
0	1	0	1	1	1	1	1
0	1	1	1	0	0	1	1
1	0	0	0	0	0	1	1
1	0	1	0	1	0	1	1
1	1	0	0	1	0	1	1
1	1	1	0	0	0	1	1

(*)



$$F = \overline{\overline{A+C} + \overline{B+C}}$$

$$= (A+C)(B+C)$$

$$= C + AB$$

$$= \bar{A}\bar{B} + AB$$

$$= AB + \bar{A}\bar{B}$$

$$= \overline{A \oplus B}$$

A	B	$A \oplus B$	$\overline{A \oplus B}$
0	0	0	1
0	1	1	0
1	0	1	0
1	1	0	1