Question 1: Which expression corresponds to the given truth table?

Δ	В	C	Ь	E	L Q_
О	О	О	О	О	0
0	О	0	О	1	0
0	О	0	1	О	0
0	0	0	1	1	0
0	О	1 1	О	О	0
0	О	1_1	О	1	0
0	0	1 1	1	О	0
0	О	1	1	1	0
0	1	0	О	О	0
0	1	0	0	1	0
0	1	0	1	О	0
0	1	0	1	1	0
0	1.	1.	0	0	0
0	1.	1.	0	1	0
0	1	1.	1	0	0
0	1	1 1	1.	1.	0
1	0	0	0	0	1
1	О	0	О	1	1
1 .	0	0	1	0	1
1 .	О	0	1	1	1 L
1 .	О	1 1	0	0	1_
1 .	О	1 1	О	1	1
1	О	1 1	1	О	1
1	О	1 1	1	1	1_
1 .	1	0	О	О	1 L
1 .	1	0	О	1	1
1	1 L	0	1.	0	1_
1	1	0	1	1	1 L
1	1	1 1	0	0	1
1	1	1 1	О	1	3 L
1	1.	1 1	1 .	0	1 L
1 .	1 .	1 1	1.	1	0

Correct Answer:

The correct expression is: ('A and not (B and C and D and E)',

 $\label{lem:converse} $$ 'C:\Users\Lenovo\OneDrive\Desktop\logicgates\Truthtable\truth_table_1.svg') $$$

	В		Ь	⊫	Q
О	О	0	О	О	0
0	О	0	0	1	0
0	0	0	1.	0	0
0	0	0	1	1	0
0	0	1 1	0	0	0
0	О	1 1	0	1 1	0
0	0	1.	1	0	0
0	О	1.	1.	1	0
0	1	0	0	0	0
0	1.	0	О	1	0
0	1	0	1.	0	0
0	1	0	1	1	0
0	1	1.	О	0	0
0	1	1 .	0	1	0
0	1	1 1	1	0	0
0	1	1 1	1	1	0
1	О	0	0	0	1
1	О	0	О	1	1
1	О	0	1	0	1
ı	О	0	1	ı	1
1	О	1 1	0	0	1
1	О	1 1	О	1	1
	О	1 1	1.	0	1
1	О	1 1	1	1	1
1 .	1	0	0	0	1
1	1	0	0	1	1
1	1	0	1	0	1
1	1	0	1	1	1
	1	1.	0	0	<u>ı</u>
1 .	1	1 1	0	1	1
1	1	1_1_	1	0	1
1	1	1 1 1	1 1	1 1 1	0

Question 2: Which expression corresponds to the given truth table?

Δ	В	C	Ь	E	L Q_
0	0	0	О	0	0
0	0	0	О	1	0
0	0	0	1	0	0
0	0	0	1	ı	0
0	0	1.	О	0	0
0	О	1 1	О	1	0
0	0	1 1	1	0	0
0	0	1 1	1	1	0
0	1_	0	0	0	0
0	1_	0	0	1 .	0
0	1	0	1	0	0
0	1	0	1	1	0
0	1	1.	0	0	0
0	1.	1.	0	1	0
	1	1 1	1	0	0
0	1.	1 1	1	1	0
1.	0	0	0	0	0
1	0	0	О	1	0
1	0	0	1	0	0
1	0	0	1	1	0
1	0	1 1	0	0	0
1.	0	1.	О	1	0
1	0	1 1	1	0	0
ı	0	1 1	1	1	0
1	1	0	О	0	1
1	1	0	О	1	0
 _	1.	0	1	0	0
1	1	0	1	1	0
1	1	1 1	0	0	0
1	1	1 1	0	1	0
1	1	1 1	1	0	0
1 .	1.	1 1	1	1	0

Correct Answer:

The correct expression is: ('A and B and not (C or D or E)',

	В		Ь	⊫	Q
0	О	0	О	О	0
0	О	0	0	1	0
0	0	0	1 1	0	0
0	0	0	1 1	1	0
0	0	1 1	0	0	0
0	0	1 1	0	1	0
0	0	1 1	1 1	0	0
0	О	1 1	1.	1	0
0	1	0	0	О	0
0	1	0	0	1	0
0	1	0	1 1	О	0
0	1.	0	1.	1	0
0	1	1.	0	О	0
0	1	1 1	0	1	0
0	1	1 1	1 1	О	0
0	1.	1 1	1.	1	0
1 .	О	0	0	О	0
1.	О	0	0	1	0
1 .	О	0	1 1	О	0
3 L	О	0	1 1	1	0
1 .	0	1	0	0	0
1 .	0	1 1	0	1	0
1.	0	1 1	1 1	0	0
1 .	0	1 1	1 1	1	0
1 .	1	0	0	0	1
1 .	1		0	1	0
1 .	1		1 1	0	0
1.	1	0	1 1	1	0
1.	1	1 1	0	0	0
1 .	1	1 1	0	1	0
1 .	1	1 1	1 1	0	0
1 .	1 .	1.	1 1 1	1 1	0

Question 3: Which expression corresponds to the given truth table?

Δ	В	C	Ь	E	LQ
О	О	0	О	О	0
0	0	0	О	1	1
0	0	0	1	0	1
0	0	0	1	1	1 L
0	0	JL	О	0	ı
0	0	1 1	О	1	1 L
0	0	1 1	1	0	1
0	0	1 1	1	1	1
О	1.	0	0	0	1
0	1_	0	0	1	1
0	1_	0	1	0	1
0	1	0	1	1	1
0	1	1.	0	0	1
0	1.	1_1	0	1	1
0	1 1	1 1	1	0	1
0	1.	1 1	1	ı	1
1	0	0	О	0	0
1	0	0	О	1	0
1	0	0	1	0	0
1	0	0	1	1	0
1	0	1 1	0	0	0
1	0	1 1	0	1	0
1	0	1 1	1	0	0
1	0	1 1	1	1	0
1	1	0	0	0	0
1	1	0	0	1	0
1	1	0	1	0	0
1	1	0	1	1	0
1	1	1 1	0	0	0
1	1	1 1	0	1	0
1	1.	1 1	1 .	0	0
1 .	1 .	1 1 1	1.	 _	0

Correct Answer:

The correct expression is: ('not A and (B or C or D or E)',

 $\label{lem:converse} $$ 'C:\Users\Lenovo\OneDrive\Desktop\logicgates\Truthtable\truth_table_3.svg') $$$

	В	l c l	Ь	⊫	LQ
О	О	0	О	О	0
0	О	0	0	1	1
0	О	0	1.	0	1
0	0	0	1.	1	1
0	0	1 1	0	0	1
0	О	1 1	0	1 1	1
0	0	1 1	1	0	1
0	0	1 1	1.	1	1
0	1	0	0	0	1
0	1	0	0	1.	1
0	1	0	1.	0	1
0	1	0	1	1	1
0	1	1 1	0	0	1
0	1	1 1	0	1	1
0	1	1.	1	0	1
0	1	1 1	1	1	1
1	О	0	0	0	0
1 .	О	0	0	1	0
1 .	О	0	1	0	0
1 .	О	0	1	1	0
1	О	1 1	0	0	0
1	О	1 1	0	1	0
	О	1 1	1	0	0
ı	О	1 1	1	1	0
1 .	1	0	0	0	0
1	1	0	0	1	0
1 .	1	0	1	0	0
1 .	1	0	1	1	0
1	1	1 1	0	0	0
1 .		1 1	0	1	0
1	1	1 1	1	0	0
1.	1	1 1 1	1 1	1 1.	0