

7 The truth table for a logic circuit is shown.

INPUT				OUTPUT
A	B	C	D	T
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	0
1	0	0	1	1
1	0	1	0	0
1	0	1	1	1
1	1	0	0	0
1	1	0	1	1
1	1	1	0	0
1	1	1	1	1

(a) Write the Boolean logic expression that corresponds to the given truth table as the sum-of-products.

T =
 [3]

(d) (i) Write the Boolean logic expression from your answer to part (c) as the simplified sum-of-products.

T =
 [2]

(ii) Use Boolean algebra to write your answer to part (d)(i) in its simplest form.

T = [1]