

3 (a) Complete the truth table for the following logic expression:

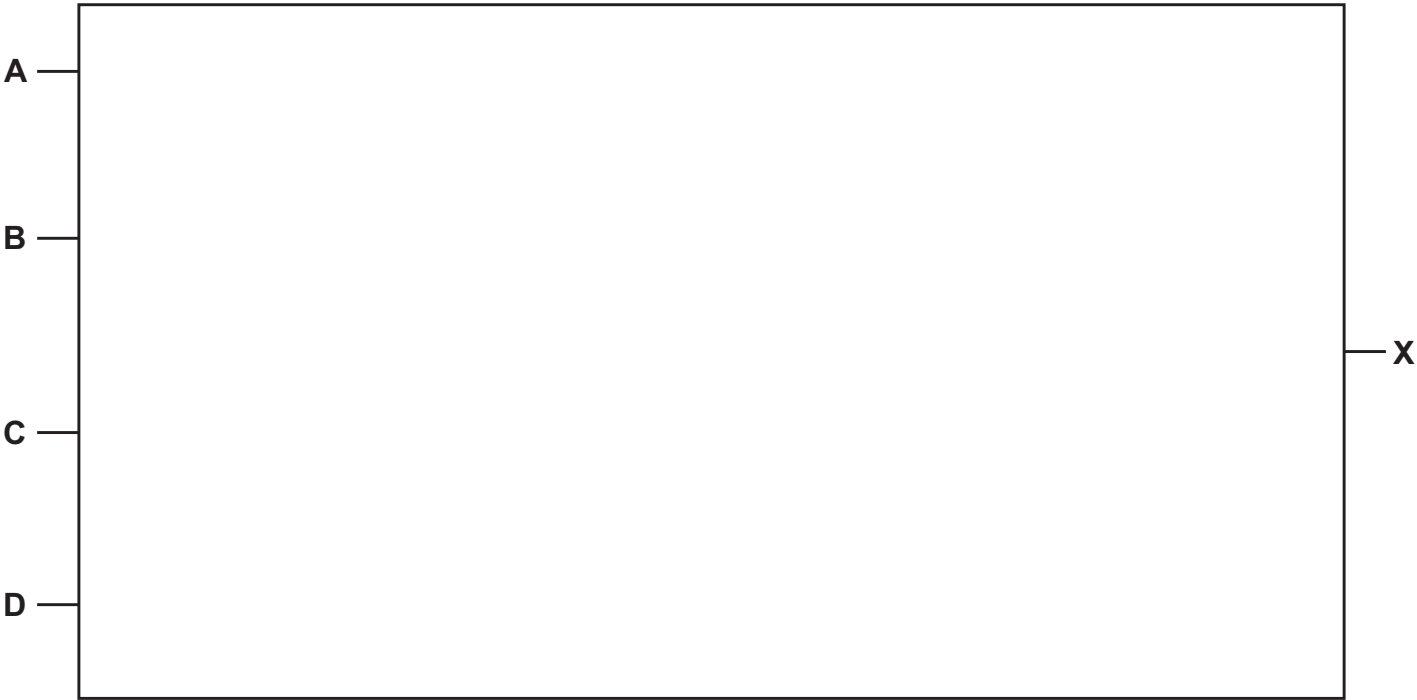
$$X = (A \text{ NOR } B) \text{ NAND } (C \text{ XOR } B)$$

A	B	C	Working space	X
0	0	0		
0	0	1		
0	1	0		
0	1	1		
1	0	0		
1	0	1		
1	1	0		
1	1	1		

[2]

(b) Draw a logic circuit for the logic expression:

$$X = \text{NOT } (((A \text{ AND } B) \text{ OR } C) \text{ AND } (C \text{ NOR } D))$$



[2]