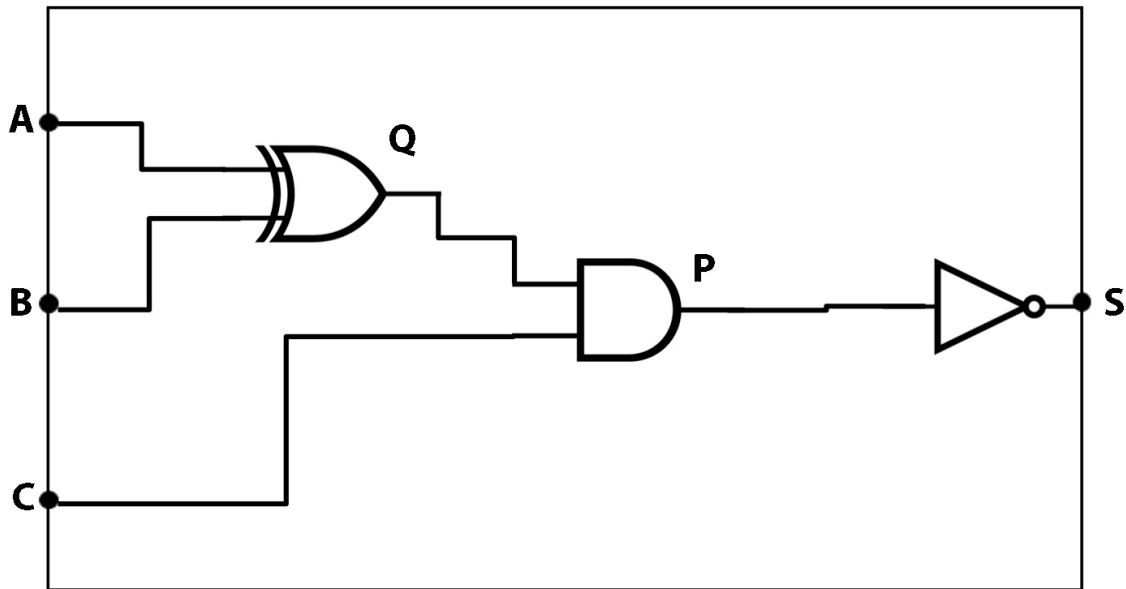**01** A logic circuit is connected as shown. The circuit has three inputs, A, B and C, and one output, S.

01.1 Complete the truth table for the circuit

[3 marks]

A	B	C	Q	P	S
0	0	0	0	0	1
0	0	1	0	0	1
0	1	0	1	0	1
0	1	1	1	1	0
1	0	0	1	0	1
1	0	1	1	1	0
1	1	0	0	0	1
1	1	1	0	0	1

01.2 Write a word equation for the circuit above

[3 marks]

NOT (C AND (A XOR B))

02 Write the logic statement NOT (A AND B) using logic notation symbols

[2 marks]

(A.B) with an overscore