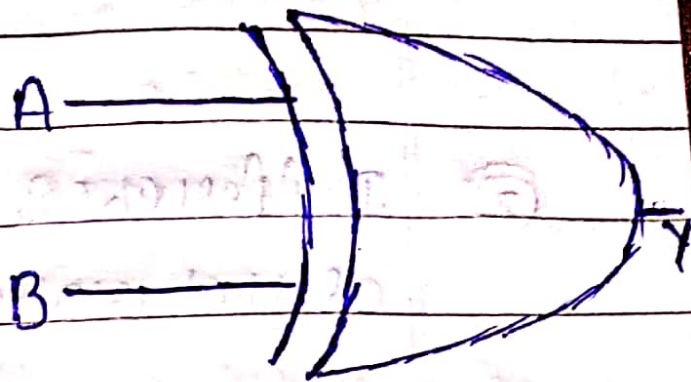


section-4

① How can a X-OR gate be used as an inverter?

Ans For two input X-OR gate, the output becomes 1 only when the inputs are not equal. So, it is called as anti-coincidence gate or inequality detector. The output becomes 1 only when exclusively one of its inputs is 1 (it excludes the condition when both inputs are 1).

INPUT		output
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0



$$Y = A \oplus B$$

For three or more variable X-OR gate the output becomes 1 only when odd number of input are

X-OR gate as an inverter:- An X-OR gate can be used as an inverter by connecting one of its input to 1

