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Question 1 NAND GATE.

⇒ A NAND gate is a logic gate that produce a low output (0) only if all its inputs are true and high output (1) otherwise. Hence the NAND gate is the inverse of an AND gate, and its circuit is produced by connecting and AND gate to a NOT gate. Just like an AND gate, a NAND gate may have any number of input probes but only one output probe.

NAND gate known as <u>Universal gates</u> which means they are a type of logic gates which can implement any Boolean function without the need to use any other gate type.

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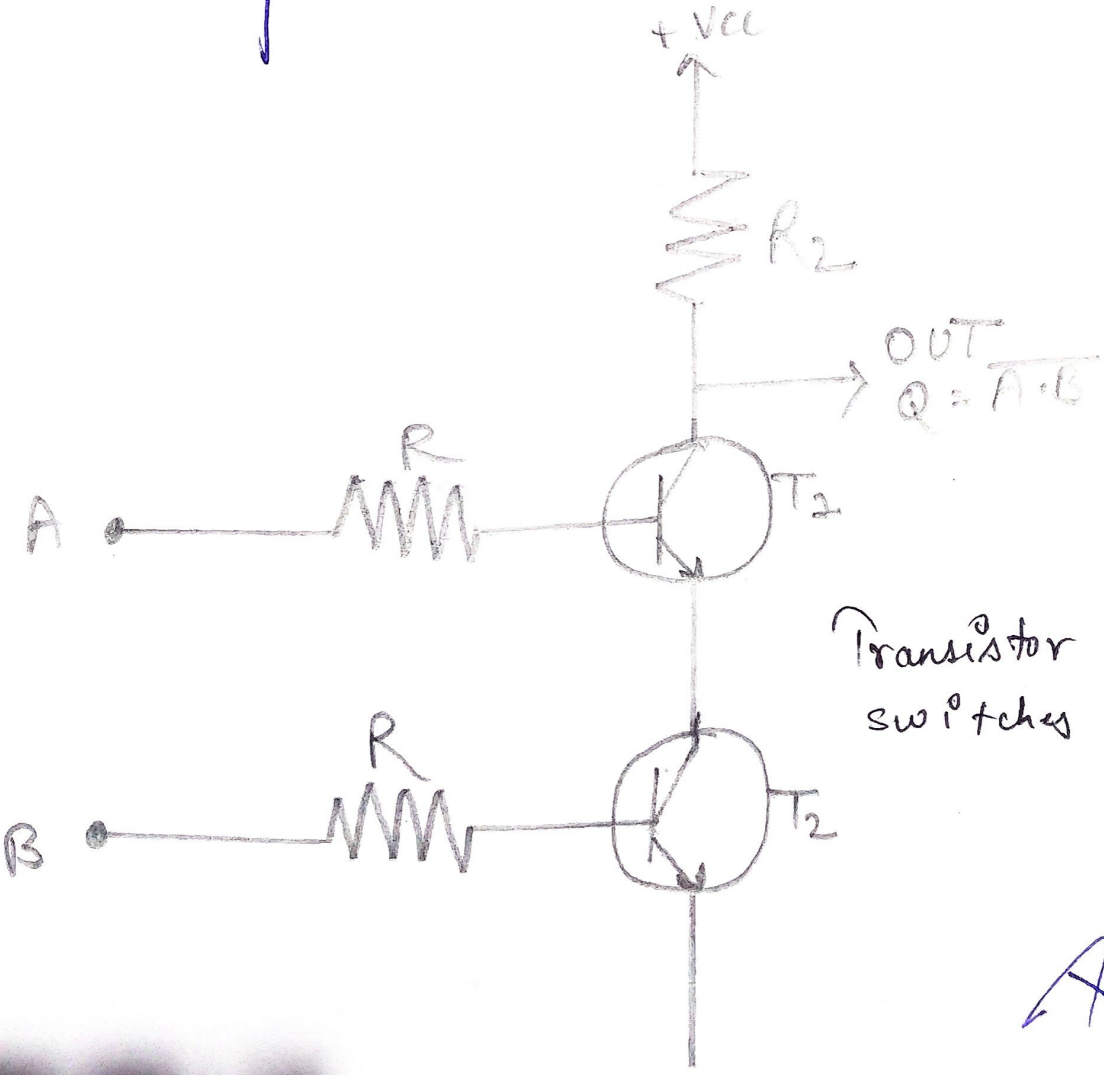
TRUTH TABLE

Inputs		Output
A	B	$X = \overline{A \cdot B}$
0	0	1
0	1	1
1	0	1
1	1	0

Circuit Diagram.



Transistor switches.