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EEE-303, CT-2

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### Answer to the Question no-(2)

Integrated Component ~~or~~ with Resistor, capacitor, diode, and gates.

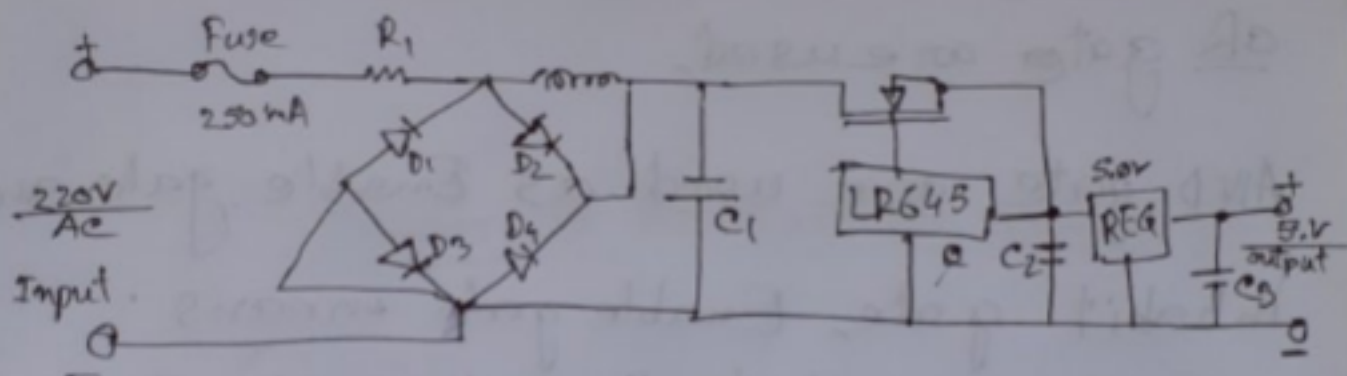


Figure: AC to 3V DC with LP645 logic gate.

### Answer to the Question no - (3)

#### Application of logic gate in computer technology

The existence of any one or more than one incident is needed to be observed on some behaviour are to be taken after their existence. In all of those instances OR gate are used,

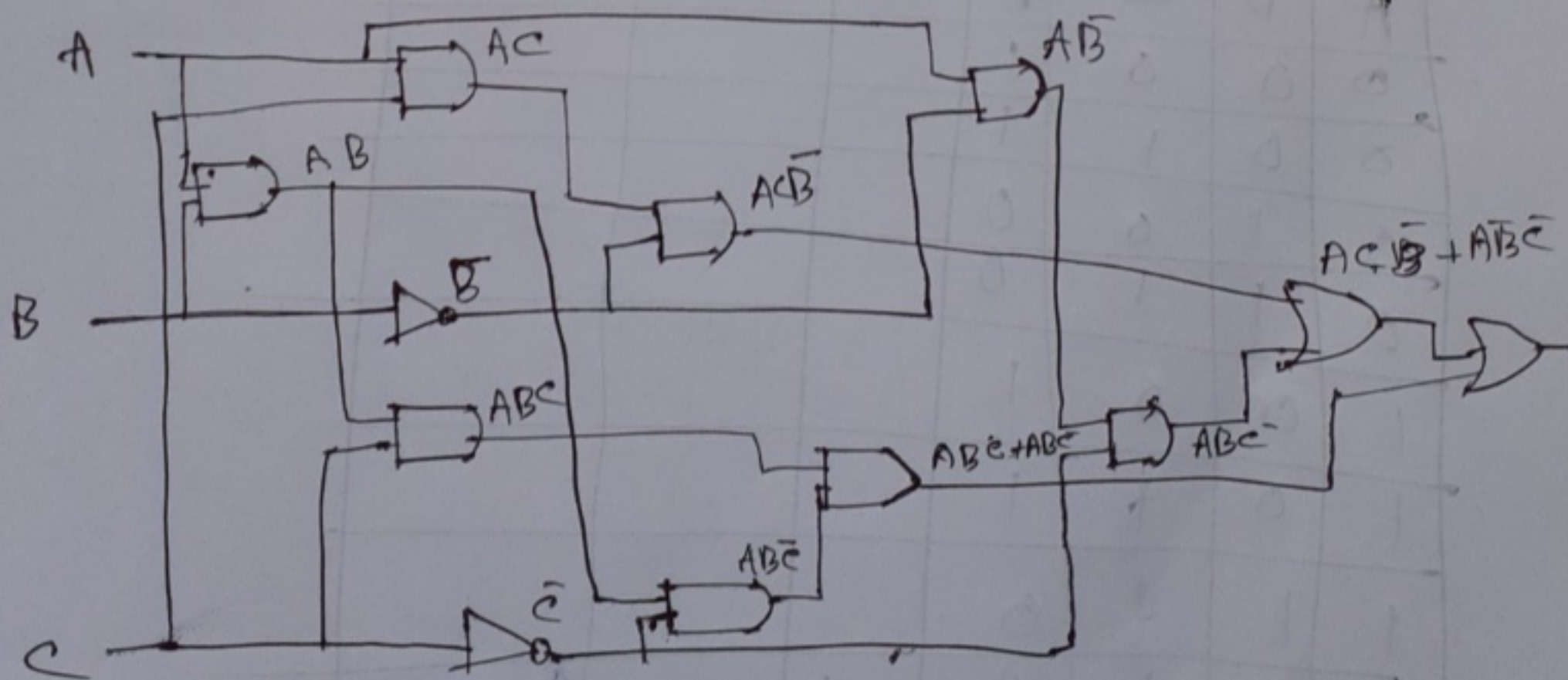
AND gate are used as Enable gate and Inhibit gate. Enable gate means acceptance of data through a pathway while inhibit gate is the opposite of that process which means rejection of data through a pathway.



XOR and XNOR gates are used in identity generation and identity check operation,

NOT gates are also called inverter because they switch the input given to them and show the reverse outcome.

Answer to the question no - (1)





$$\therefore D = AC\bar{B} + A\bar{B}\bar{C} + AB\bar{C} + A\bar{B}C$$

$$= AC\bar{B} + A\bar{B}\bar{C} + AC(B + \bar{B})$$

$$= A\bar{B}(\bar{C} + C) + AC \quad [B + \bar{B} = 1]$$

$$= A\bar{B} + AC \quad [C + \bar{C} = 1]$$

Truth table

A	B	C	$\bar{B}$	$A\bar{B}$	$AC$	$A\bar{B} + AC$
0	0	0	1	0	0	0
0	0	1	1	0	0	0
0	1	0	0	0	0	0
0	1	1	0	0	0	0
1	0	0	1	1	0	1
1	0	1	1	1	1	1
1	1	0	0	0	0	0
1	1	1	0	0	1	1

Ans.

