ARM ASSIGNMENT

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CONTENTS

I. QUESTION

In the circuit shown below, X and Y are digital inputs, and Z is a digital output. The equivalent circuit is a

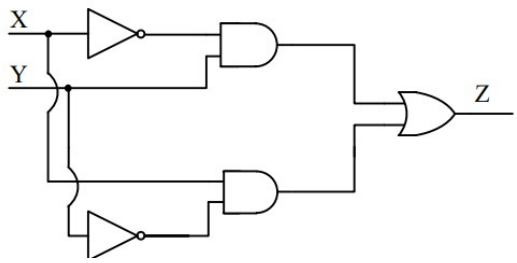

Fig. 1. CIRCUIT

II. COMPONENTS

Component	Values	Quantity
vaman	LC	1
JumperWires	M-F	10
Breadboard		1
LED		1
Resistor	220ohms	1

Table.COMPONENTS

III. TRUTH TABLE

XOR gate truth table

INPUT		OUTPUT
A	B	A XOR B
0	0	0
0	1	1
1	0	1
1	1	0

Fig. 2. XOR GATE TRUTH TABLE

A. LOGIC

From the Logic Block we get

$$Z = \overline{X}.Y + X.\overline{Y} \tag{1}$$

Which is the logic of a XOR gate

IV. PROCEDURE

1) Connect the anode (longer leg) of the LED to PYGMY pin 21 (on the VAMAN board.
2) Connect the cathode (shorter leg) of the LED to a current-limiting resistor (e.g., 220 ohms).
3) Connect the other end of the current-limiting resistor to the GND (ground) pin on the VAMAN.
4) Use PYGMY pin 22,23 on the VAMAN board to give the input manually.

V. CONCLUSION

Hence we have found the Z from digital circuit given which represents xor gate.Execute the circuit using below code.

https://github.com/Vamsichowdary04/FutureWirelessCommunicationFWC-/blob/main/armvaman/src/main.c