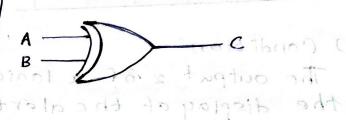
(O) A balb in a staircase has two switches one switch being at the ground floor and the other one at the first floor. The bulb can be turned on and can be turned off by and one of the switches respective of the state of the other switch.

(a) Draw the truth table for above situation (b) Draw the most suitable logic circuit.

B	output				
0	0				
odt t	111 1117				
0					
	0				

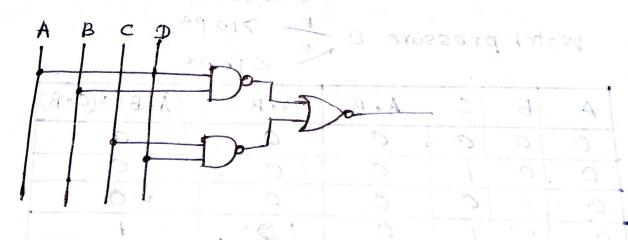
530

\* 3N

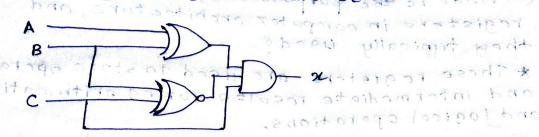


(2) The boolean function Y = AB+ eD is to realized using only 2 input NAND Gate.

(a) Extract the boolean function for NAND gate using the labore formula:



63) What is the boolean expression for the given logical circuit below.



2 = (A+B). (B+C). Con long and angle woll con

	, , , ,		71	3 3	0 400	axa alt a	4 21	10 4 1		П
(0£	)9								0.90	
odta	A	B	C	P	output	orafavas m	O A E	500	47	
tx	0	0	0	0	90860	torce the	AB		095	
endot of a	( <b>O</b> , :	0	0	1/2	Kithon	A.B.C.D	a A	300	teni	
9 6 9	0 -	0	11:	0	on o	a mora ao	TI	300	(11 (11)	
pro	0	0	10	(3.0	0	EU 3 OH AB	3 3 3	ibt	this co	
	0		0	0	0	CO	00	21.03	119 100	
- 11	0	1	0	1	1	A.B.C.	1			
adfn	0	1 3	Hos	0	0	de 3df e 3	2 31	THE	1	1
2901	0	1	1	10	0	2001 + 01	dal A	10	1 1	ABGD
	1	0	0	0	0	2011	4 - 3	003	19.0	ABED
take	10/1	0	0	1:	molets	A.B. Z. Di	14	170		ABCD
3)	0 6	201	1	0	botha	A.B. 6.D	000	B: .	a the or	ABCD
anitodira	0	8	13 A	700	12/12	A. B. C. D	2 (11	さがつ	1000	4
	1		0	0	0	its to oto	123	14	10000	ABEP
i testat	7/1	odt	0	100	ob/ago	A.B.C.D	11010	0 0	duce	ADGD
250h 01	041	OR	1	3	4000 s	al heom	901	4.		4 - 1
Cosaran	94	39		6.1.	1/2 1/x	A.B.C.D	F=(	CD)+	(A.D)	+(A.E.C)
		1							•	7 1

resource to a colore to the section

$$F_{ON} = (A E C D) + (A E C D)$$

$$+ (A B C D) + (A B C D)$$