1. .
    - $F1, \ldots, Fn \models G \ \sim ((F1 \wedge F2 \wedge \ldots Fn) \Rightarrow G)$ (regula de deductie)
    - $F1, \ldots, Fn \models G \ \Leftrightarrow (F1 \wedge \ldots \wedge Fn \wedge \neg G)$ (ipoteza)

    Notam cu $M= F1 \wedge F2 \wedge \ldots Fn$

    Din tabelul de mai jos se poate observa ca pentru a avea $M \wedge \neg G$ nesatisfiabil ar trebui sa ignoram cazul in care M=1 si G=0. Iar in acest caz propozitia M=>G este valida, deci M|=G este o consecinta logica .

M	G	notG	M=>G	M^notG
0	0	1	1	0
0	1	0	1	0
1	0	1	0	1
1	1	0	1	0

2. .

F	**G**	**F ⇔ G**	**F ~ G**
1	**1**	**1**	**1**
1	0	0	0
0	1	0	0
0	**0**	**1**	**1**

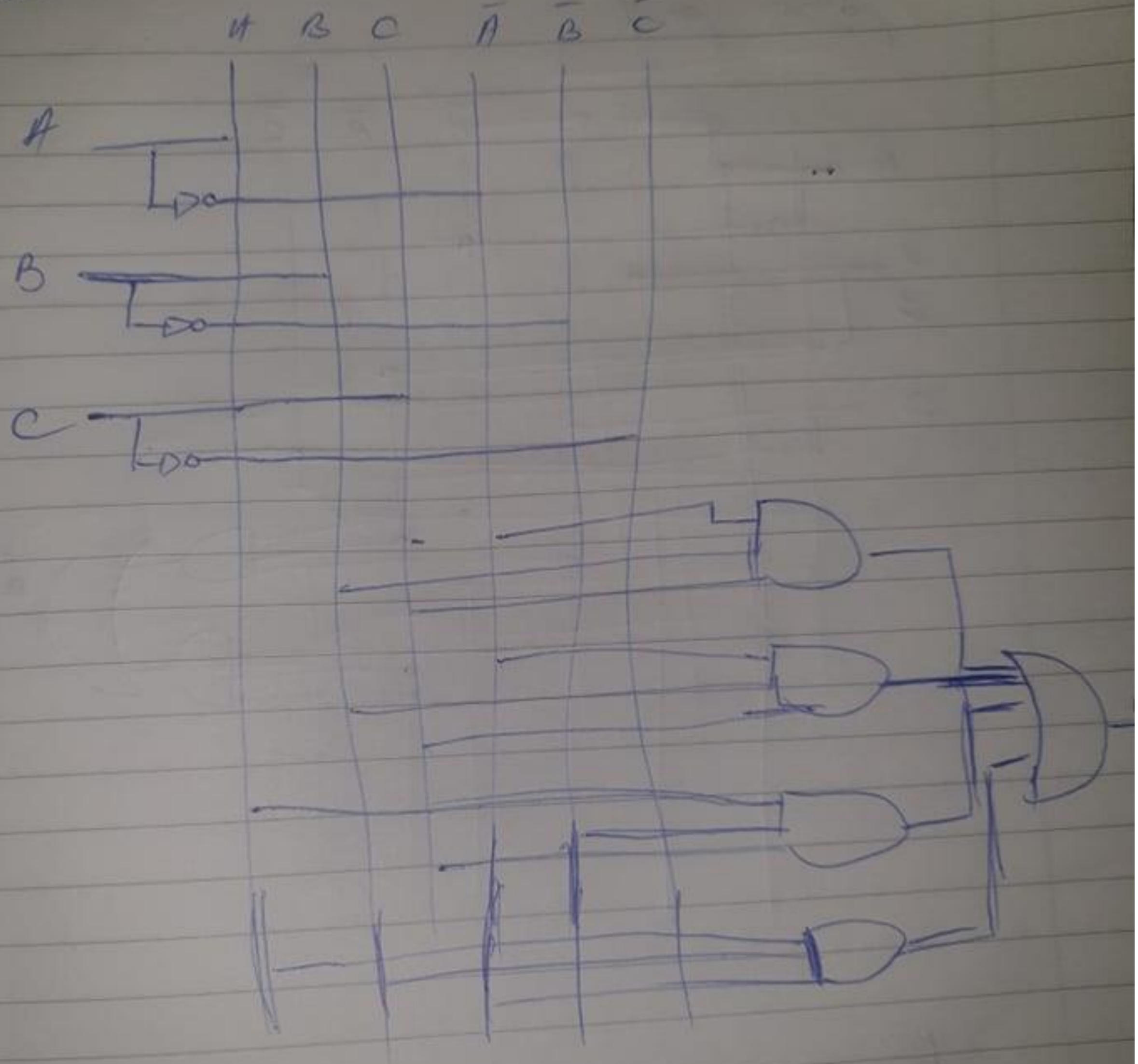
3. .

Q	R	P	**notP**	**Q v R**	**Q => notP**	R^P	**not(R^P)**
1	1	1	**0**	**1**	**0**	1	**0**
1	1	0	**1**	**1**	**1**	0	**1**
1	0	1	**0**	**1**	**0**	0	**1**
1	0	0	**1**	**1**	**1**	0	**1**
0	1	1	**0**	**1**	**1**	1	**0**
0	1	0	**1**	**1**	**1**	0	**1**
0	0	1	**0**	**0**	**1**	0	**1**
0	0	0	**1**	**0**	**1**	0	**1**

4. (a) functia prim

A	B	C	M
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

prim



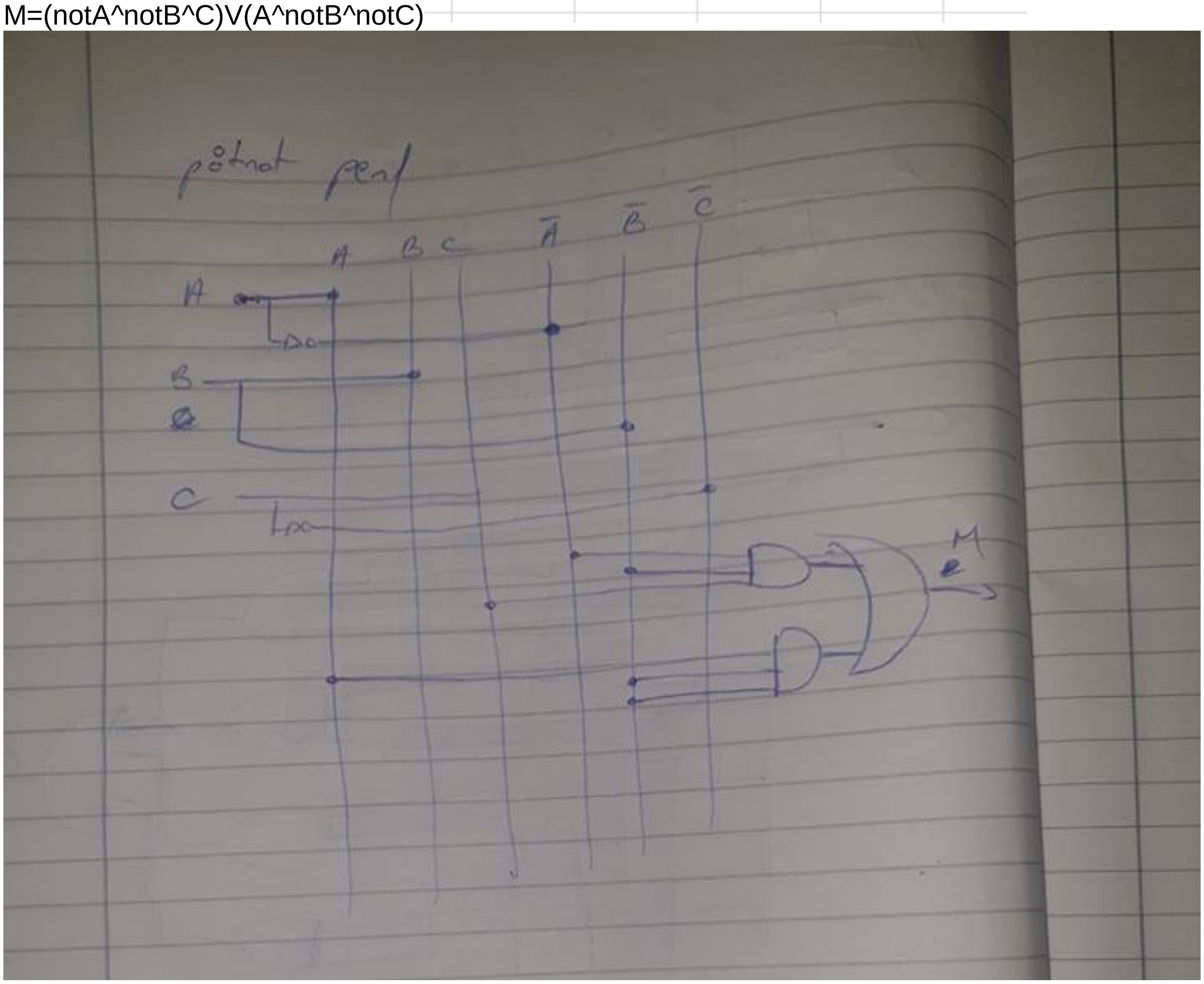
M= (notA^B^notC) V (notA ^B^C) V (A^notB^C) V(A^B^C)

b)

patrat perfect

A	B	C	M
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	0

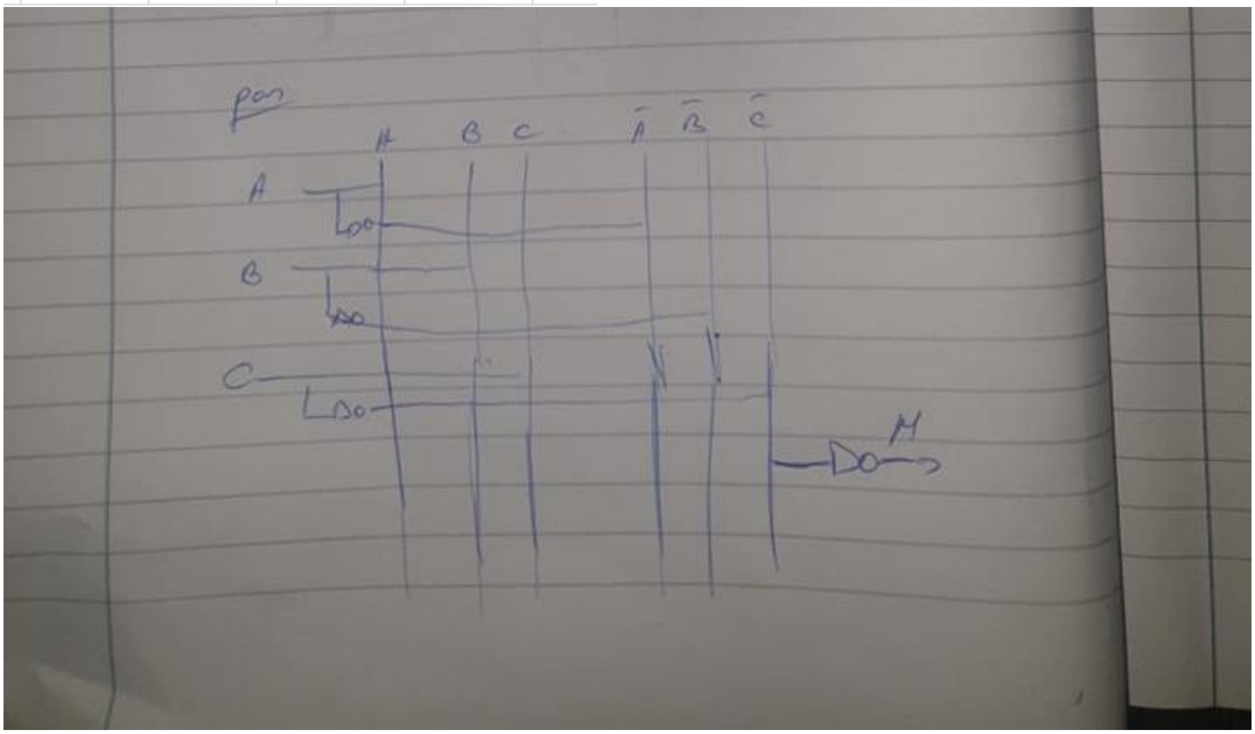
M=(notA^notB^C)V(A^notB^notC)



c)

Par

A	B	C	M
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	0

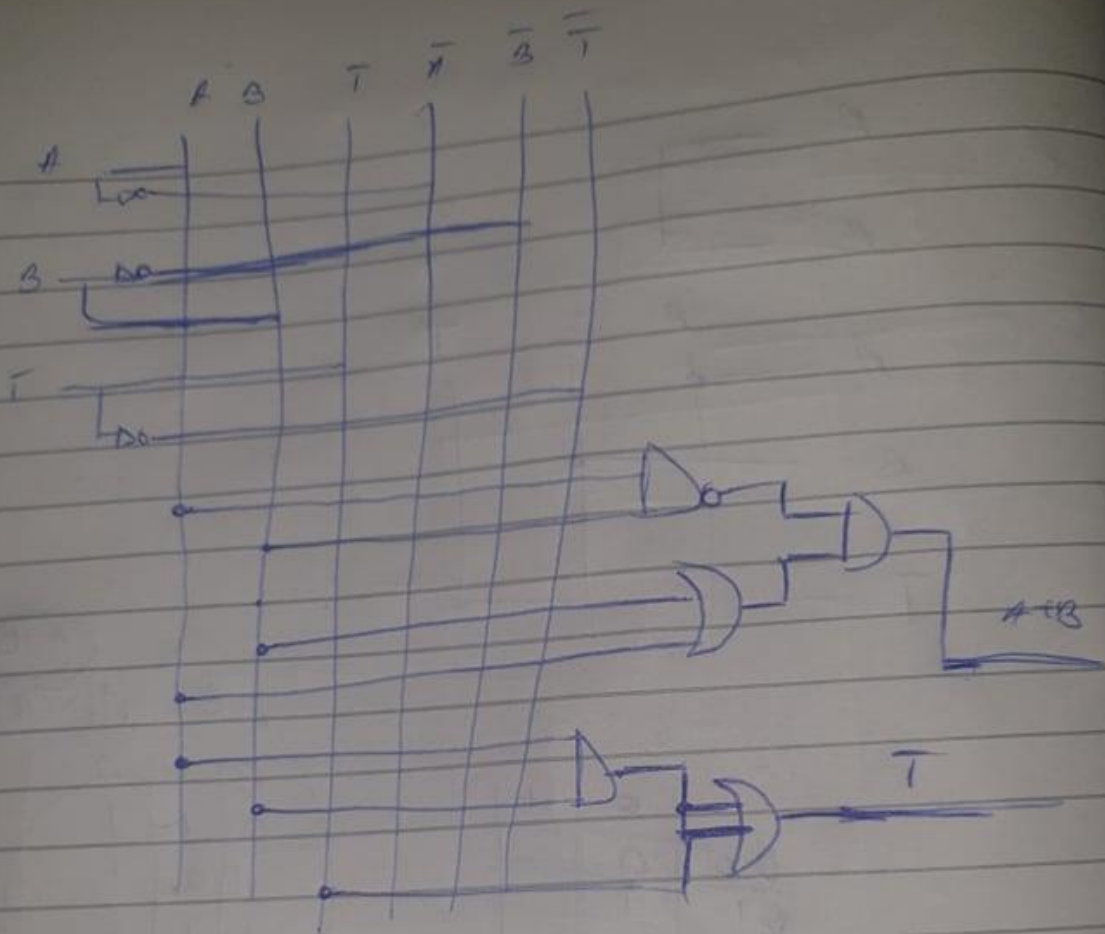


M=notC

Pentru ca in reprezentarea in binar toate cifrele sunt puteri ale lui 2. A=2^2, b=2^1, c=2^0.

Se observa ca suma celor 3 numere da un numar impar doar daca C este 1,deci numarul nostru reprezentat in binar este impar doar daca C=1

5.


A
B
T
A
B
T
A+B
T