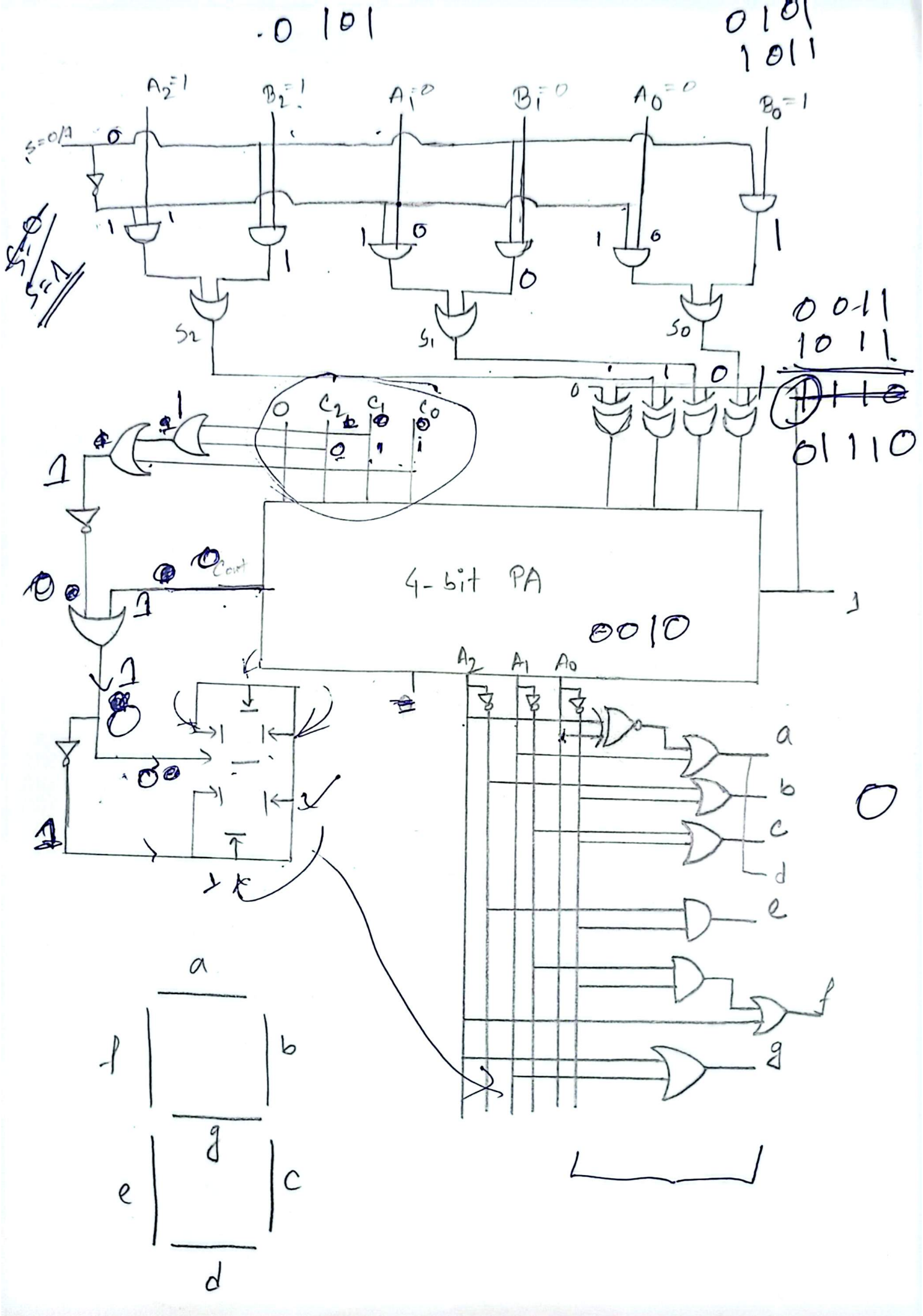
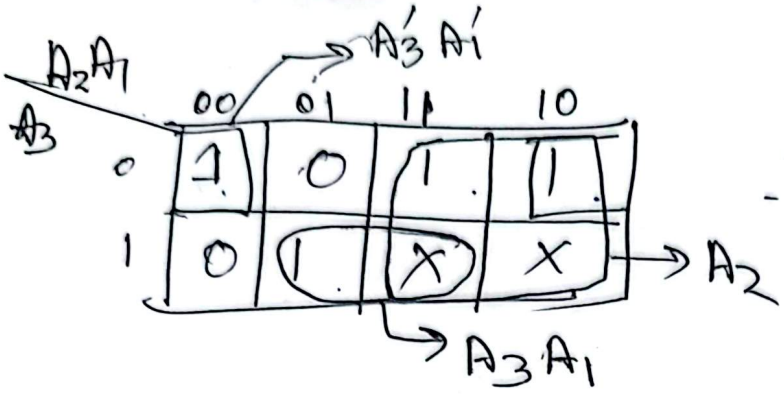
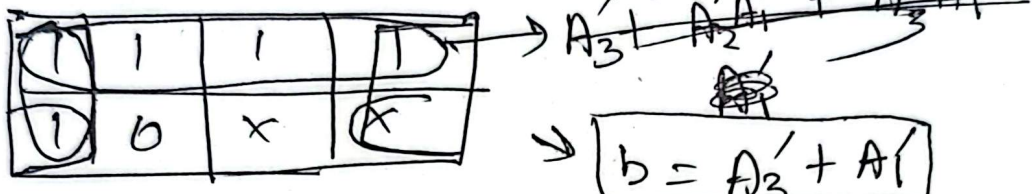
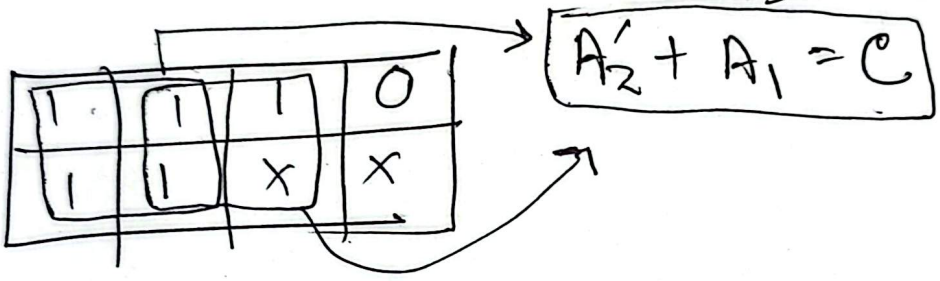

A2=1
B2=1
A1=0
B1=0
A0=0
B0=1
S=0/A
S=1/S
S2
S1
S0
C2
C1
C0
Cout
4-bit PA
A2
A1
A0
a
b
c
d
e
f
g

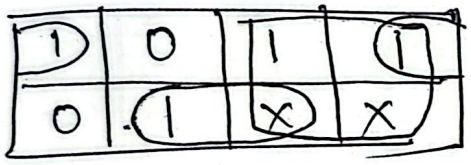


$\therefore a = A_2 + A_3 \odot A_1$

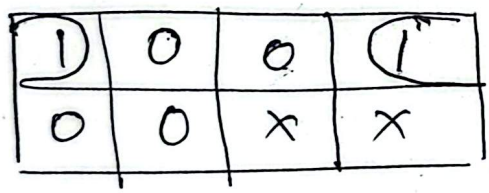


$b = A_3' + A_1'$

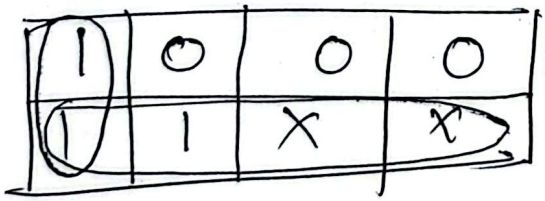




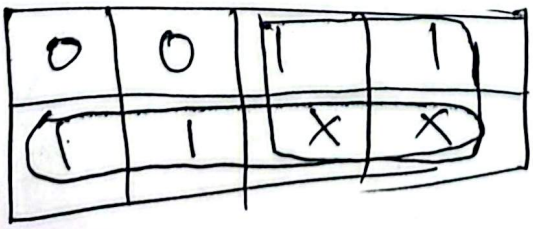
$\rightarrow A_2 + A_3A_1 + A_3'A_1' = A_2 + A_3 \odot A_1 = D$



$E = A_3'A_1'$



$F = A_3 + A_2'A_1'$



$G = A_2 + A_3$