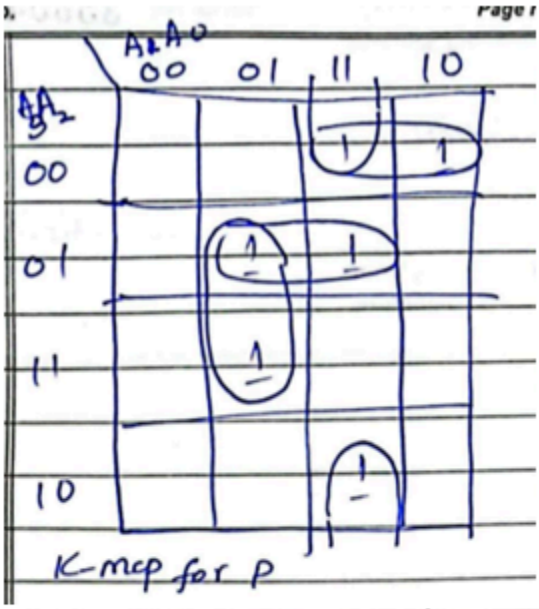
DLD MT-2 Solution

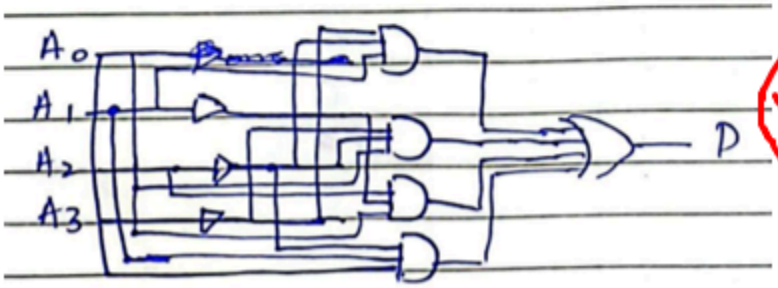
Q.1



2

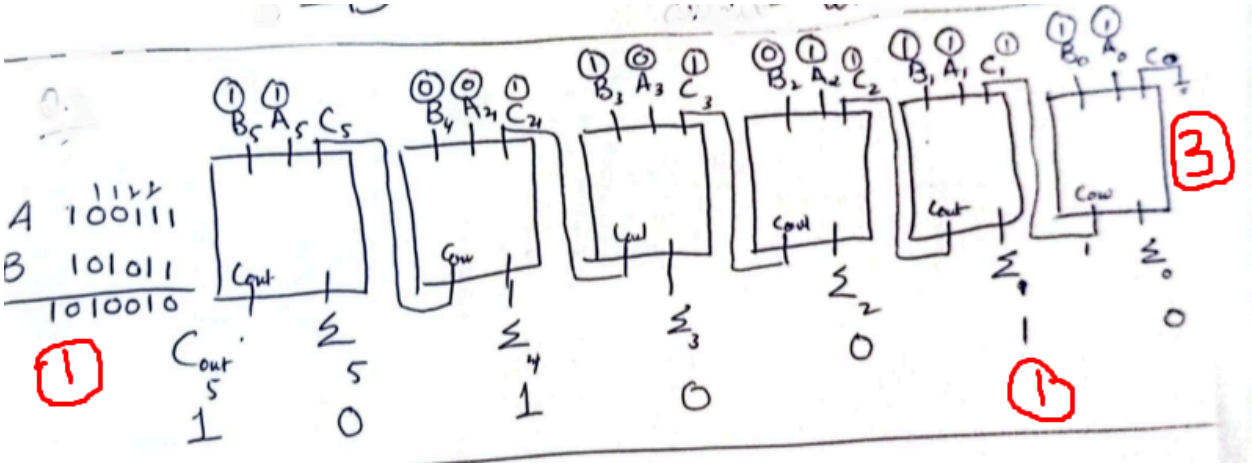
$P = \bar{A}_3\bar{A}_2A_1 + \bar{A}_3A_2A_0 + A_2\bar{A}_1A_0 + \bar{A}_2A_1A_0$

1.5

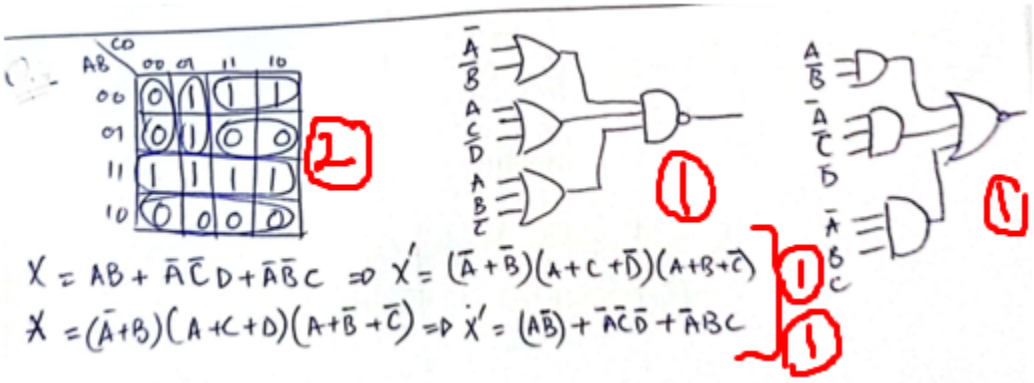


1.5

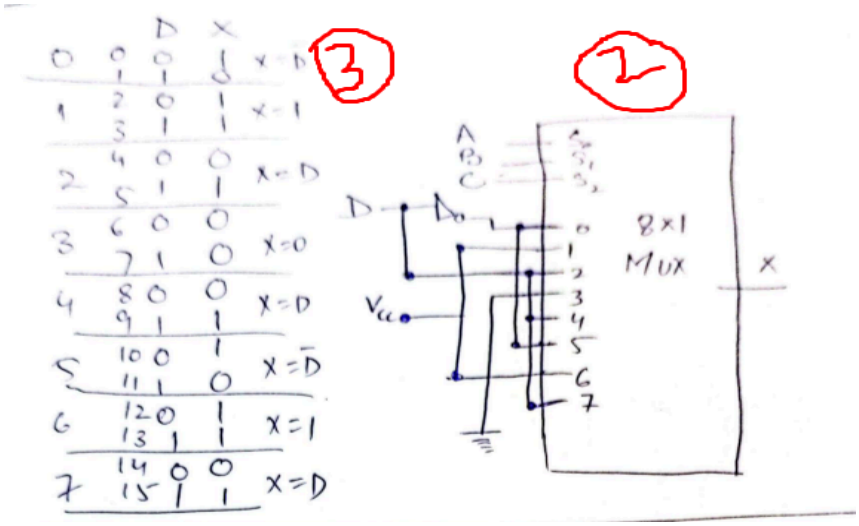
Q.2:


A 100111
B 101011
1010010
Cout 1
S5 0
S4 1
S3 0
S2 0
S1 1
S0 0
3

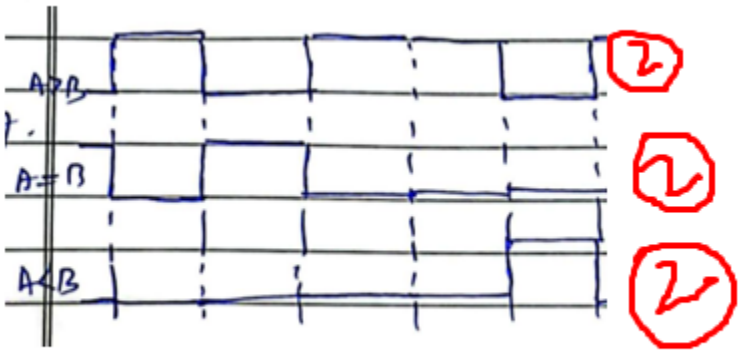
Q.3:


CD
AB
00 01 11 10
00
01
11
10
2
X = AB + ĀC̄D + ĀB̄C ⇒ X' = (Ā + B̄)(A + C + D̄)(A + B + C̄)
X = (Ā + B)(A + C + D)(A + B̄ + C̄) ⇒ X' = (AB̄) + ĀC̄D̄ + ĀBC
1
1
1
1

Q.4:


D
X
X = D
X = 1
X = D
X = 0
X = D
X = D̄
X = 1
X = D
3
2
A
B
C
D
D0
Vcc
8×1
MUX
X
0
1
2
3
4
5
6
7

Q5:


A>B
A=B
A<B
2
2
2

Q.6:

1 Pin — D_4

$\bar{5}$ Pin — D_8

output will be D_8 (1000)

$\bar{A}_3$	$\bar{A}_2$	$\bar{A}_1$	$\bar{A}_0$
0	1	1	1