Date .....

Tutorial-7

1 (a) $F_1(A,B) = A' + B'$

$= A(B+B') + B'(A+A')$

$= A'B + AB' + B'A$

$F(A,B) = \Sigma(0,1,2)$

(b) $F_2(A,B,C,D) = A + BC' + ABD' + ABCD$

	A	B	C	D	F
0	0	0	0	0	0
1	0	0	0	1	0
2	0	0	1	0	0
3	0	0	1	1	0
4	0	1	0	0	1
5	0	1	0	1	1
6	0	1	1	0	0
7	0	1	1	1	0
8	1	0	0	0	1
9	1	0	0	1	1
10	1	0	1	0	1
11	1	0	1	1	1
12	1	1	0	0	1
13	1	1	0	1	1
14	1	1	1	0	1
15	1	1	1	1	1

$F = \Sigma M(4,5,8,9,10,11,12,13,14,15)$

$F = \Pi M(0,1,2,3,6,7)$

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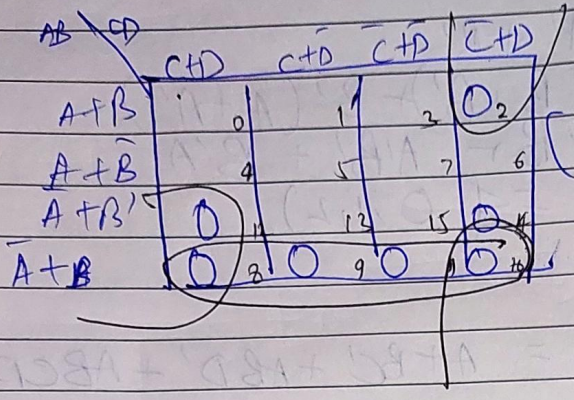
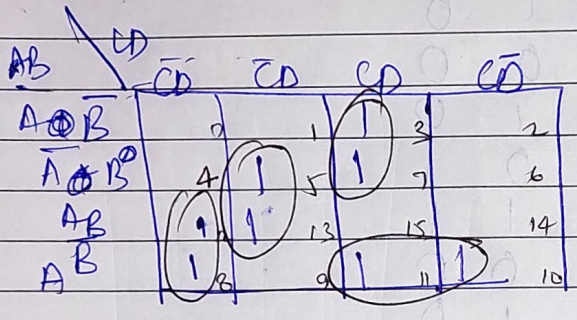
2. $F = \Pi M(2, 8, 9, 10, 11, 12, 14)$.



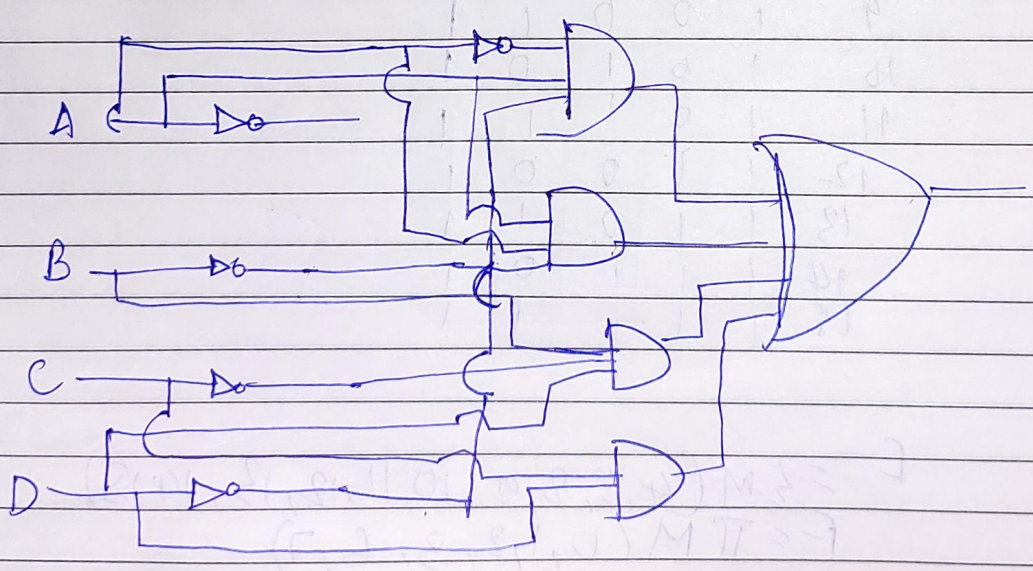
$(\bar{A}+D)(\bar{A}+B)(\bar{C}+D+\bar{A})$

3. $f = \Sigma M(3, 5, 7, 8, 10, 11, 12, 13)$

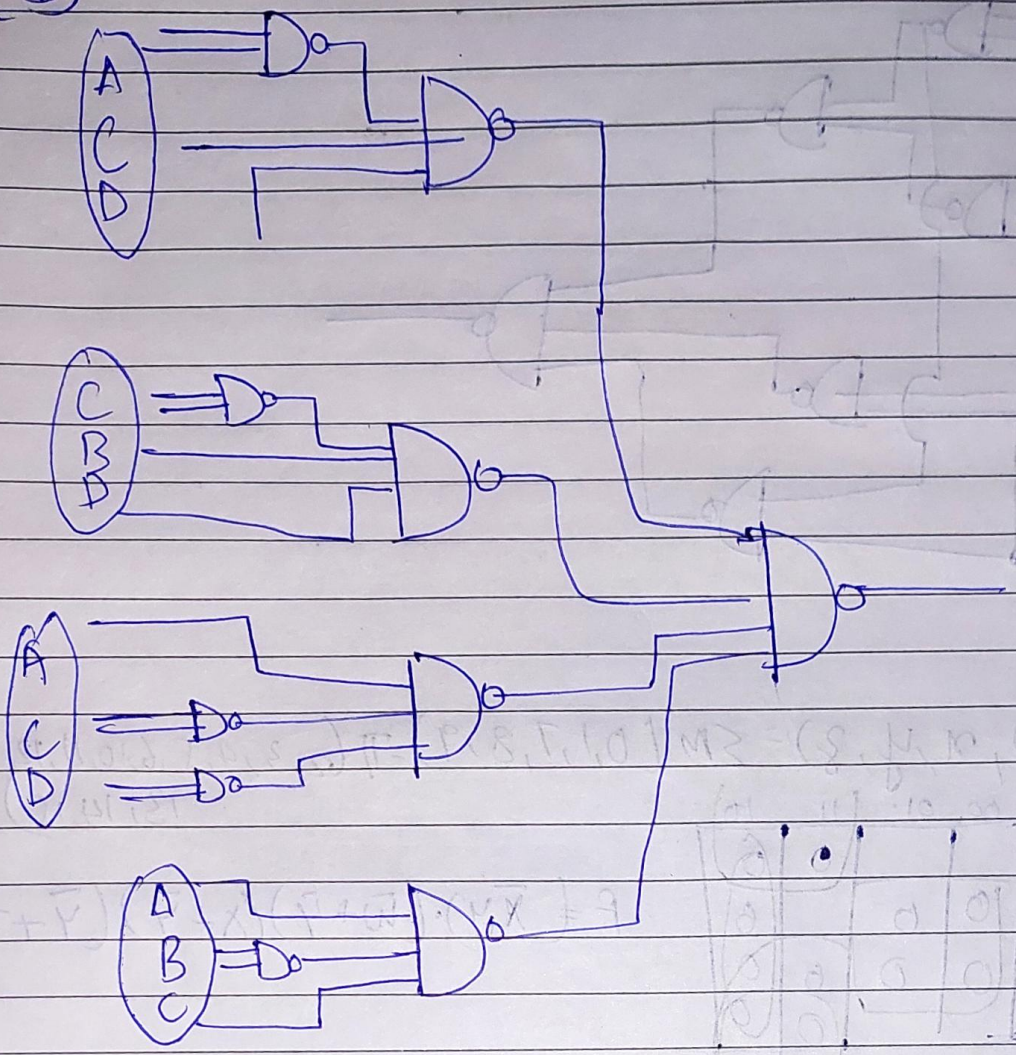


$CD\bar{A} + \bar{C}DB + A\bar{C}\bar{D} + A\bar{B}C$

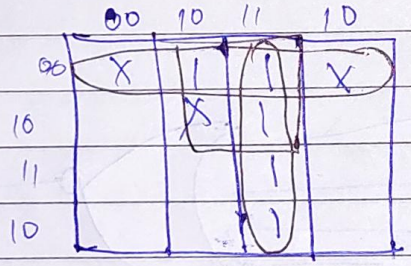
(a)



(b)



A. $F(x, y, w, z) = \Sigma M(1,3,7,11,15) + \Sigma d(0,2,5)$



$F = \bar{w}x + z\bar{w} + yz.$

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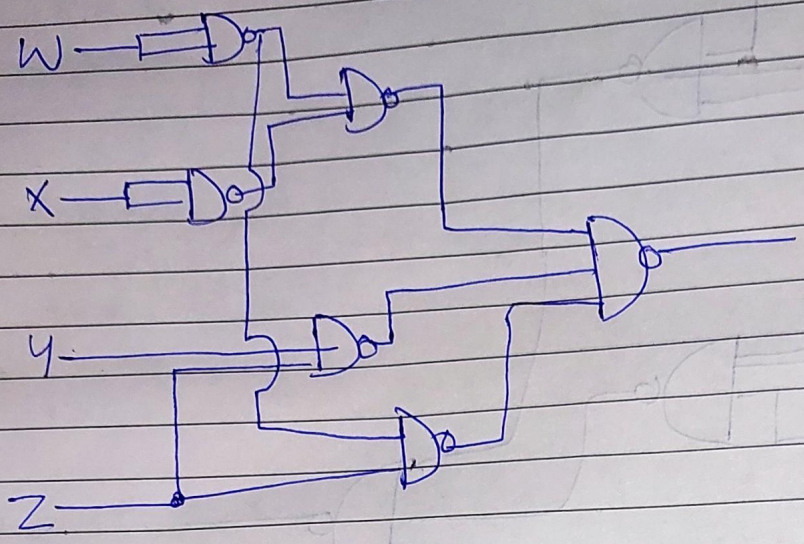
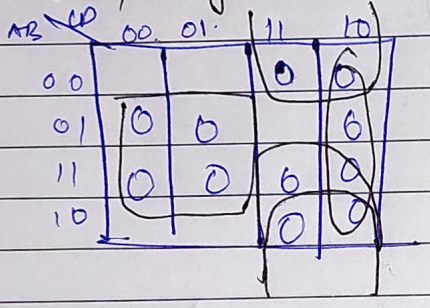
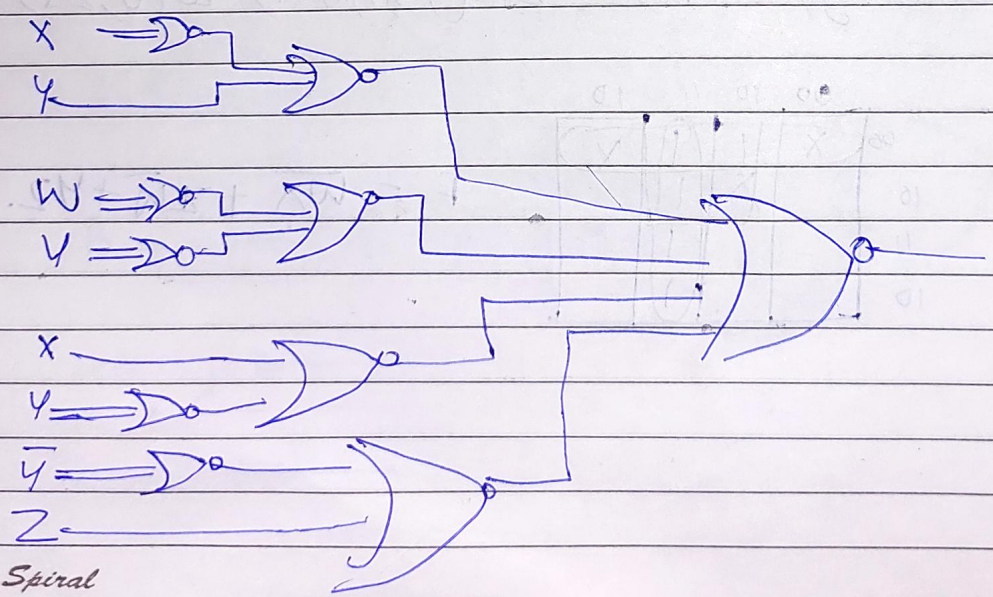


5. $F(w,x,y,z) = \Sigma M(0,1,7,8,9) = \Pi(2,3,4,5,6,10,11,12,13,14,15)$



$F = (\bar{x}+y)\cdot(\bar{w}+\bar{y})(x+\bar{y})(\bar{y}+z)$



Spiral