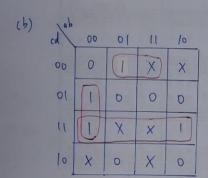
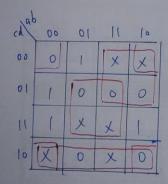


cd/p	00	0	11	10
00	0	1	0	0
0 (0	1	1	
11	X	X	X	0
10	(0	X	1





$$f = (b+d)(a'+c)(b'+d')(c'+d) \times$$
or $(b+d)(a'+c)(b'+d')(b'+c') \times$

5.19						
	(a)	Ci	Cz	X,	X2	2
		0	0	D	0	0
		0	0	0	1	0
		0	0	1	0	0
		0	0	1	1	1
		0	1	0	0	0
		0	-	0	1	1
		0	1	1	D	1
		0	1	1	1	0
		1	0	0	0	1
		1	0	0	1	1
		(0	1	0	0
		- 1	0	(1	1
		(1	0	0	1
		1	1	0	1	0
		1	(1	0	0
				1	1	1

$$Z = (C_{1} + X_{1} + X_{2})(C_{1} + C_{2} + X_{1})$$

$$(C_{1}' + C_{2}' + X_{1} + X_{2}')$$

$$(C_{1} + C_{2}' + X_{1}' + X_{2}')$$

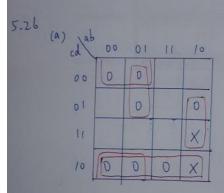
$$(C_{1}' + X_{1}' + X_{2}) (C_{2} + X_{1}' + X_{2})$$
or
$$(C_{1} + X_{1} + X_{2})(C_{1} + C_{2} + X_{1})$$

$$(C_{1}' + C_{2}' + X_{1} + X_{2}')$$

$$(C_{1} + C_{2}' + X_{1}' + X_{2}')$$

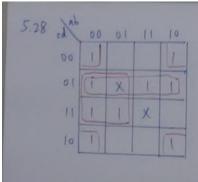
$$(C_{1}' + X_{1}' + X_{2}) (C_{1} + C_{2} + X_{2})$$

$$(C_{1}' + X_{1}' + X_{2}) (C_{1} + C_{2} + X_{2})$$



$$f = (a+d)(a+b'+c)(a'+b+d')(c'+d)$$

$$f = \frac{(a+d)(b+c)(a+b+c')(c+d)}{(a+b+c')(b+d)} \times$$
or $\frac{(a+d)(b+c)(a+b+c')(b+d)}{(a+b+c')(b+d)} \times$



- abod = 0101 and abod = 1111 never occurs.
- ... minterms 5 and 15 are don't care.

$$F = b'd' + a'd + c'd$$

(b) prime implicants: a'b', d, abc', a'c, b'c

(c)
$$f = \alpha'b' + d$$

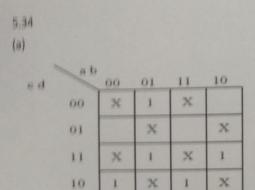
or $\alpha'c + d$
or $b'c + d$

(d) a						
cd	00	0(16	10		
00	X	10	X	0		
٥١	1	X	1	X		
11	X	1	X	1		
10	1	X	0	X		
· prime Implicant						

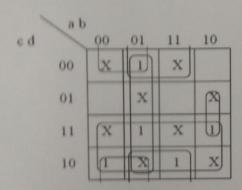
prime implicants: c'd', bd', ad',
a'bc', abc', abc

(e)
$$f = (c+d)(b'+d)$$

or $(c+d)(a'+d)$
or $(b'+d)(a'+d)$



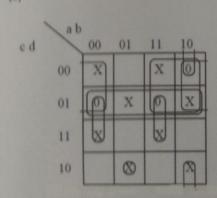
(b)



P1 = bd', ab', a'd', c, ab'd.

$$f = bd' + c \text{ or } a'b + c \text{ or } ad' + c.$$

(d)



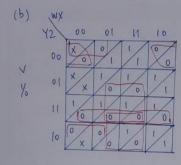
PI = (c+d'), (a'+c), (b+c)

(a+b+d'), (a+b'+c'+d), (a'+b'+d')

(a'+b+d)

(e) f = (c+d')(a'+c) or (b+c)(c+d') or (b+c)(a'+c)

$$F = \underline{V'XY'Z'} + VWX + \underline{X'Y'Z} + \underline{VZ} + WX'YZ'$$



$$F = \frac{(X+Y+Z)(V'+W+Z)(V+X'+Z')(V+Y'+Z')}{(V+X'+Y')}$$