I

$cd' + a'c'd + a'bd' + ab'd'$

II

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

III

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

IV

Primes: $\Sigma m(0,1,4,5)$, $\Sigma m(0,2)$, $\Sigma m(5,9)$, $\Sigma m(15)$, $\Sigma m(25)$, $\Sigma m(30,31)$, $\Sigma m(30,28)$, $\Sigma m(19,23)$.

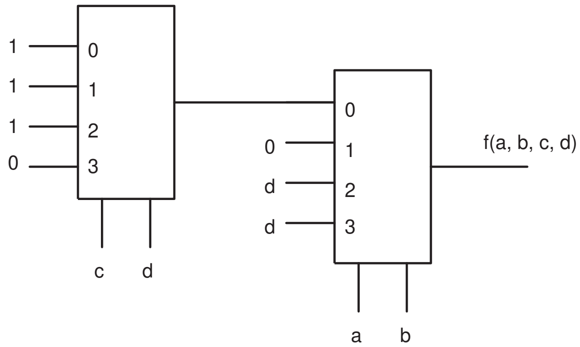
Essential Primes: $\Sigma m(0,1,4,5)$, $\Sigma m(0,2)$, $\Sigma m(5,9)$, $\Sigma m(15)$, $\Sigma m(25)$, $\Sigma m(19,23)$.

V

Primes: $\Sigma m(0,1,4,5)$, $\Sigma m(4,5,6,7)$, $\Sigma m(6,7,14,15)$, $\Sigma m(10,11,14,15)$, $\Sigma m(9,11)$, $\Sigma m(1,9)$.

Essential Primes: $\Sigma m(0,1,4,5)$.

VI

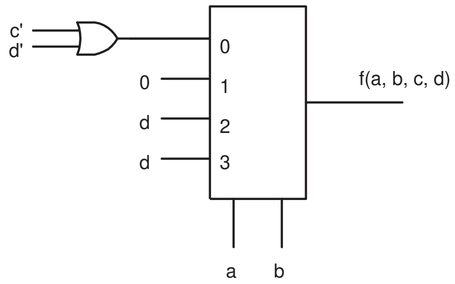


	cd			
ab	00	01	10	11
00	1	1	1	0
01	X	X	0	0
10	0	1	0	X
11	0	1	0	1

VII

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

VIII



	cd			
ab	00	01	10	11
00	1	1	1	0
01	X	X	0	0
10	0	1	0	X
11	0	1	0	1