Truth table:

④ $f = \Sigma(2, 3, 5, 6, 7, 12, 14)$

A	B	C	D	f
0	0	0	0	0
0	0	0	1	0
0	0	1	0	1
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	0
1	0	0	1	0
1	0	1	0	0
1	0	1	1	0
1	1	0	0	1
1	1	0	1	0
1	1	1	0	1
1	1	1	1	0

Sub :

Day

Time : Date : / /

Taking A as S_1 and B as S_0 selectors.

(i) $A=0, B=0$

$I_0 = CD' + CD$

$= C(D+D')$

$= C$

(ii) $A=0, B=1$

$I_1 = C'D + CD' + CD$

$= C'D + C$

$= C'D + C'C + C + CD$

$= (C+D)(C+C')$

$= C+D$

$C'C=0, \quad C = C+CD$

(iii) $A=1, B=0$

$I_2 = 0$

(iv) $A=1, B=1$

$I_3 = C'D' + CD' = D'$