

17)  $f(A, B, C) = m(0, 1, 4, 6, 7)$

[U19CS012]

	BC	$\bar{B}\bar{C}$	$\bar{B}C$	BC	$B\bar{C}$
A	00	01	11	10	
$\bar{A}$	0	1	1	3	2
A	1	1	5	1	6

$$f = \bar{A}\bar{B} + AB + \bar{B}\bar{C}$$

A	B	C	0	
0	0	0	1	1
0	0	1	1	
0	1	0	0	0
0	1	1	0	
1	0	0	1	$C'$
1	0	1	0	
1	1	0	1	1
1	1	1	1	

2.7  $f(A, B, C) = M(0, 1, 4, 6, 7)$  [UI9CS012]

		BC			
		$(B+C)$	$(B+\bar{C})$	$(\bar{B}+\bar{C})$	$(\bar{B}+C)$
A		00	01	11	10
A	0	0	0		
$\bar{A}$	1	0	1	0	0

$$f = (A+B) \cdot (\bar{A}+\bar{B}) \cdot (B+C)$$

A	B	C	O	
0	0	0	0	} 0
0	0	1	0	
0	1	0	1	} 1
0	1	1	1	
1	0	0	0	} c
1	0	1	1	
1	1	0	0	} 0
1	1	1	0	

3.7 Full Adder

[UI9CS012]

A	B	$C_{in}$	Sum	Carry
0	0	0	0 } c	0 } 0
0	0	1	1 } c	0 } 0
0	1	0	1 } c'	0 } c
0	1	1	0 } c'	1 } c
1	0	0	1 } c'	0 } c
1	0	1	0 } c'	1 } c
1	1	0	0 } c	1 } ①
1	1	1	1 } c	1 } ①