Đinh Đức Tài
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HTMT Bonus 4
AI23 @ HCMUS

Date.

Key point

1/ a/ SOP:

$f(x,y,z) = x\bar{y}\bar{z} + xyz = x(yz + \bar{y}\bar{z})$

b/ Karnaugh:

x \ yz	00	01	11	10
0	0	0	0	0
1	1	0	1	0

(y: 00, 01 | 11, 10; z: 00 | 01 | 11 | 10; x: 0 | 1)

Nhóm 1: $x\bar{y}\bar{z}$

Nhóm 2: xyz

$\Rightarrow f(x,y,z) = x\bar{y}\bar{z} + xyz = x(yz + \bar{y}\bar{z})$

2/ a/ $f(x,y,z) = \Sigma(0,1,5,7)$

x \ yz	00	01	11	10
0	1	1	0	0
1	0	1	1	0

(y: 00, 01 | 11, 10; z: 00 | 01 | 11 | 10; x: 0 | 1)

Nhóm 1: $\bar{x}\bar{y}$

Nhóm 2: xz

000 : 0
001 : 1
010 : 2
011 : 3
100 : 4
101 : 5
110 : 6
111 : 7

$\Rightarrow f(x,y,z) = \bar{x}\bar{y} + xz$

b/ $f(A,B,C) = \Sigma(0,2,3,4,6)$

A \ BC	00	01	11	10
0	1	0	1	1
1	1	0	0	1

(BC: 00, 01 | 11, 10; A: 0 | 1)

Nhóm 1: $\bar{C}$

Nhóm 2: $\bar{A}B$

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