ASSIGNMENT NO :- 04

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2929.

=> Four variable k-map.

1- $F(A,B,C,D) = \Sigma(0,2,4,5,6,7,8,10,13,15)$

AB \ CD	00	01	11	10
00	m_0 1	m_1	m_3	m_2 1
01	m_4 1	m_5 1	m_7 1	m_6 1
11	m_{12}	m_{13} 1	m_{15} 1	m_{14}
10	m_8 1	m_9	m_{11}	m_{10} 1

$F(A,B,C,D) = B'D' + A'D' + BD$

2- $F(w,x,y,z) = \Sigma(1,4,5,6,12,14,15)$.

wx \ yz	00	01	11	10
00	m_0	m_1 1	m_3	m_2
01	m_4 1	m_5 1	m_7	m_6 1
11	m_{12} 1	m_{13}	m_{15} 1	m_{14} 1
10	m_8	m_9	m_{11}	m_{10}

$F(w,x,y,z) = xz' + w'y'z + wxy$.

3 - $F(A,B,C,D) = \Sigma(2,3,12,13,14,15).$

AB\CD	00	01	11	10
00	m_0	m_1	m_3 1	m_2 1
01	m_4	m_5	m_7	m_6
11	m_{12} 1	m_{13} 1	m_{15} 1	m_{14} 1
10	m_8	m_9	m_{11}	m_{10}

$$F(A,B,C,D) = w'x'y + wx.$$

4 - $F(W,X,Y,Z) = \Sigma(0,2,8,10).$

WX\YZ	00	01	11	10
00	m_0 1	m_1	m_3	m_2 1
01	m_4	m_5	m_7	m_6
11	m_{12}	m_{13}	m_{15}	m_{14}
10	m_8 1	m_9	m_{11}	m_{10} 1

$$F(W,X,Y,Z) = x'z'.$$