第~~三次~~作业　　唐嘉良　2020K8009907032.

七讲

$(A'+B')(A'+C')(B'+C')$

4.3. $Y_1 = ABC + (A+B+C)(AB+AC+BC)' = ABC + AB'C' + A'BC' + A'B'C$.

$Y_2 = AB+BC+AC$.

这是1个全加器

4.4　COMP=1，Z=0时，$Y_1 = A_1'$

$Y_2 = A_2$

$Y_3 = A_2 \oplus A_3$

$Y_4 = (A_2+A_3+A_4)'$

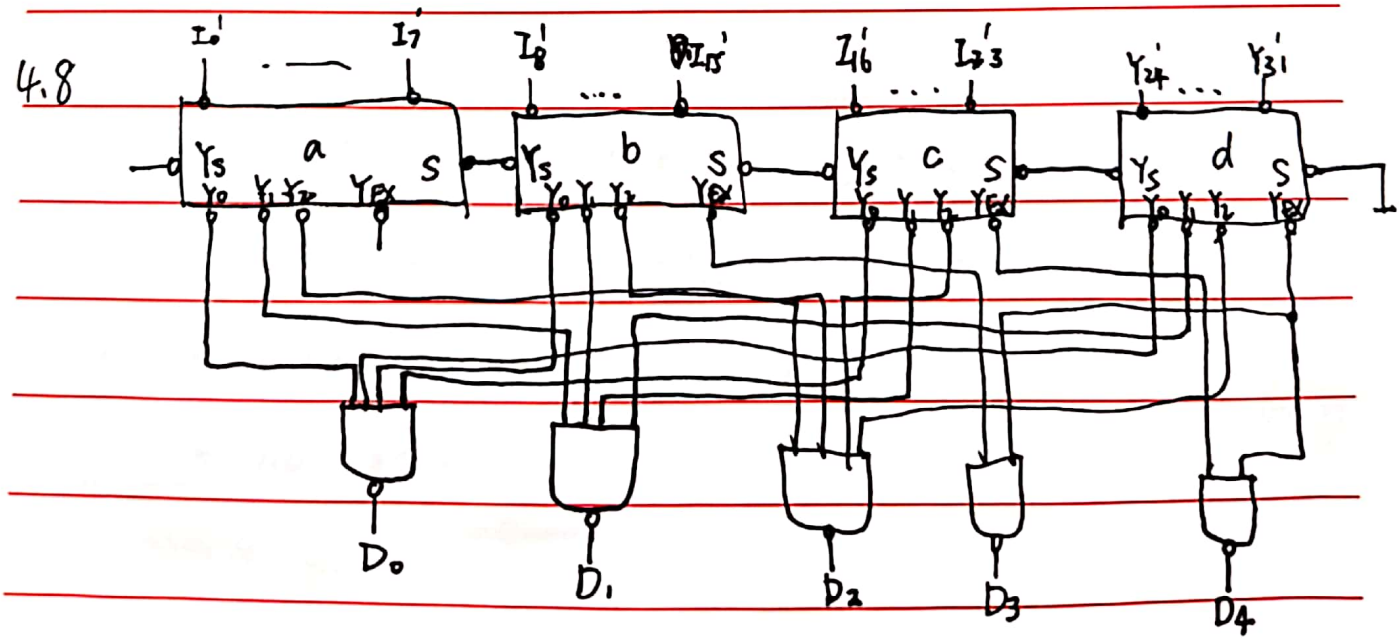
COMP=0，Z=0时，$Y_1 = A_1$

$Y_2 = A_2$

$Y_3 = A_3$

$Y_4 = A_4$

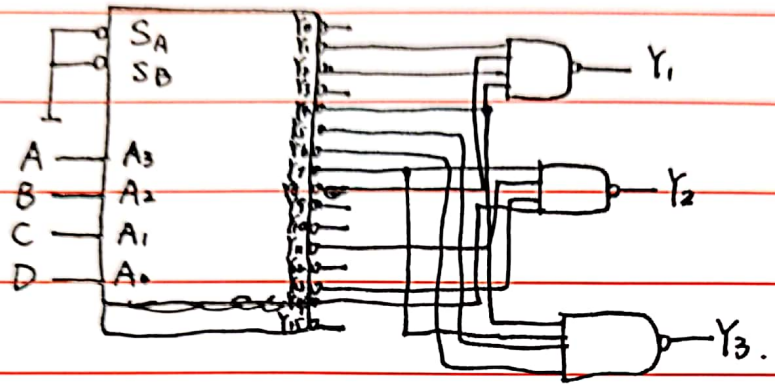
4.8



4.13 $Y_1 = m_1 + m_2 + m_9 + m_8 = (m_1' m_2' m_4' m_8')' = (Y_1' Y_2' Y_4' Y_8')'$

$Y_2 = m_7 + m_{11} + m_{13} + m_{14} = (Y_7' Y_{11}' Y_{13}' Y_{14}')'$

$Y_3 = m_4 + m_5 + m_6 + m_7 = (Y_4' Y_5' Y_6' Y_7')'$



4.17 $Y_1 = [D \cdot N'M' + D \cdot N'M + QNM' + QNM] \cdot P' = NP'Q$

同理 $Y_2 = N'PQ$

$\Rightarrow Z = Y_1 + Y_2 = NP'Q + N'PQ.$

4.19 $Y = D_0(A_2'A_1'A_0') + D_1(A_2'A_1'A_0) + D_2(A_2'A_1A_0') + D_3(A_2'A_1A_0)$

$+ D_4(A_2A_1'A_0') + D_5(A_2A_1'A_0) + D_6(A_2A_1A_0') + D_7(A_2A_1A_0)$

$\Rightarrow Y = (A'B'C') \cdot 0 + (A'B'C) \cdot D + (A'BC') \cdot D' + (A'BC) \cdot 1$

$+ (AB'C') \cdot D + (AB'C) \cdot 0 + (ABC') \cdot 1 + (ABC) \cdot 1$