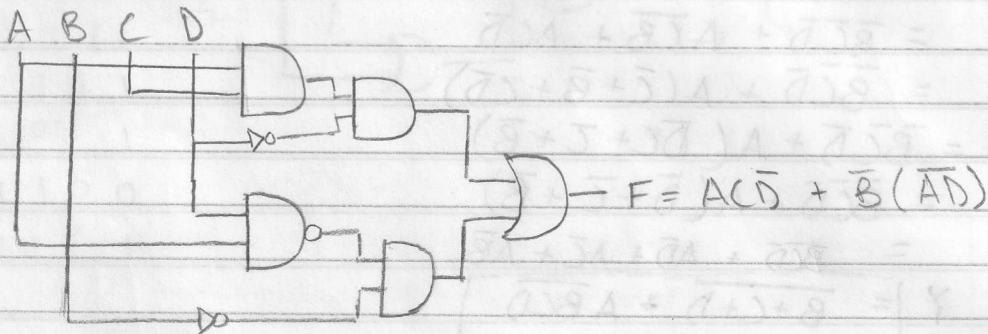


Simplify POS Form:

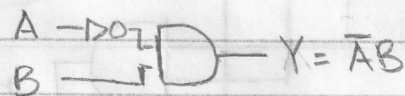
$$\begin{aligned}
 F &= (A + \bar{B} + C + D)(A + \bar{B} + C + \bar{D})(A + \bar{B} + \bar{C} + D)(A + \bar{B} + \bar{C} + \bar{D})(\bar{A} + B + C + \bar{D})(\bar{A} + B + \bar{C} + \bar{D})(\bar{A} + \bar{B} + C + D)(\bar{A} + \bar{B} + \bar{C} + \bar{D}) \\
 &= ABC\bar{D} + \bar{A}\bar{B}\bar{D} + \bar{B}\bar{C}\bar{D} + \bar{B}\bar{D} + ABC\bar{D} + AC\bar{D} + \bar{A}\bar{B} + \bar{A}\bar{B} + \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}\bar{D} \\
 &= AC\bar{D} + \bar{B}\bar{D} + \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B} \\
 &= AC\bar{D} + \bar{B}\bar{D} + \bar{A}\bar{B} \\
 &= AC\bar{D} + \bar{B}(\bar{A} + \bar{D}) \\
 &= AC\bar{D} + \bar{B}(\bar{A}\bar{D})
 \end{aligned}$$



5a. $Y = \bar{A}BC + \bar{A}\bar{B}\bar{C}$

	AB				
C	00	01	11	10	
0	0	1	0	0	
1	0	1	0	0	

$Y = \bar{A}B$



5b. $Y = \bar{A}BC + \bar{A}\bar{B}$

	AB			
C	00	01	11	10
0	1	1	1	1
1	1	1	0	1

$$\begin{aligned}
 Y &= \bar{A}BC + \bar{A}\bar{B} \\
 &= \bar{C} + \bar{A} + \bar{A}\bar{B} \\
 &= \bar{C} + \bar{A} + \bar{B} \\
 &= \overline{ABC}
 \end{aligned}$$

