Michael Campos
Prof. Li

04/27/2020
CSE222

Quiz 2

1a.

A B C	Y	Minterm
000	0	$\bar{A}\bar{B}\bar{C}$
001	0	$\bar{A}\bar{B}C$
010	0	$\bar{A}B\bar{C}$
011	0	$\bar{A}BC$
100	0	$A\bar{B}\bar{C}$
101	1	$A\bar{B}C$
110	1	$AB\bar{C}$
111	1	ABC

1b. $Y = A\bar{B}C + AB\bar{C} + ABC$

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

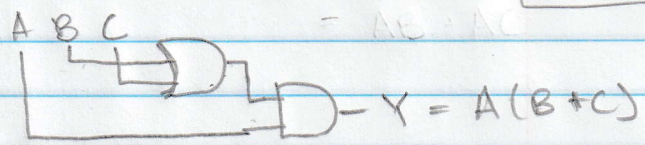
$= A\bar{B}C + B(A(\bar{C}+C)$

$= A\bar{B}C + B(A \cdot 1)$

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

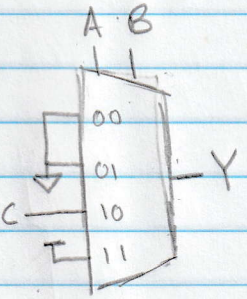
$= A(\bar{B}C + B)$

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

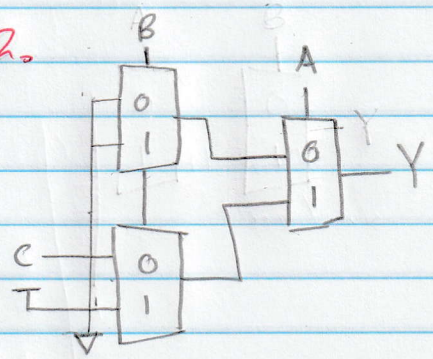


1c1.

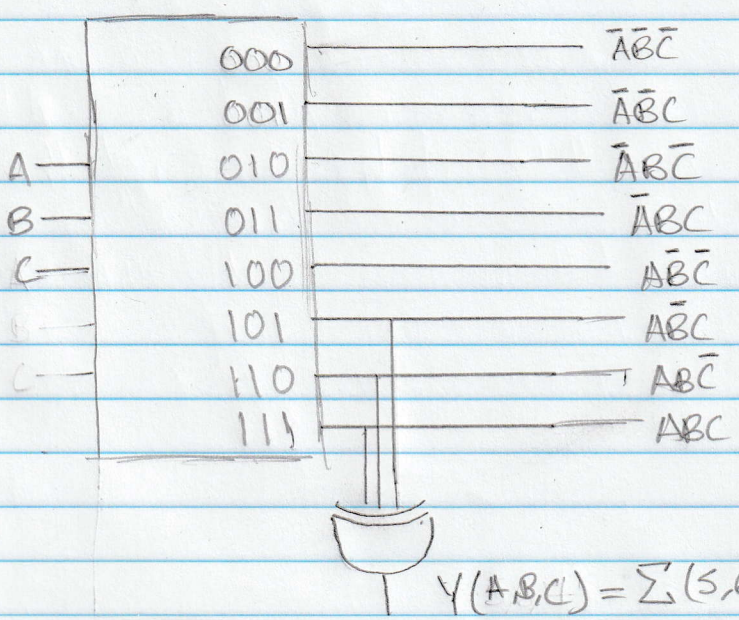
A B	Y
00	0
01	0
10	C
11	1



1c2.



1c3.



$Y(A,B,C) = \sum(5,6,7) = M5 \oplus M6 \oplus M7$