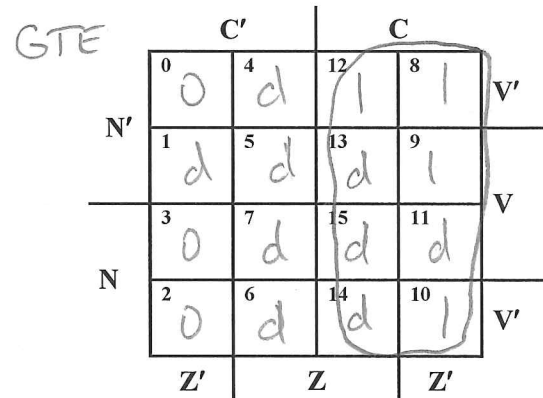
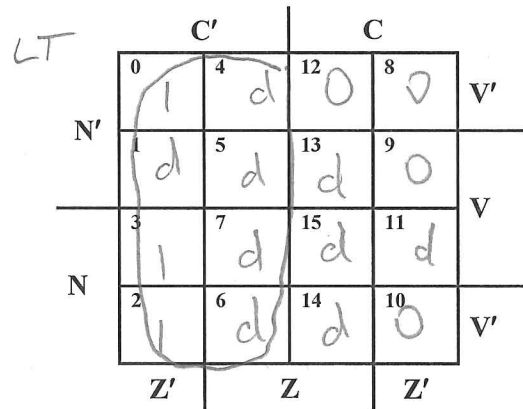


### Lab Quiz 12

The following chart applies to the questions on this quiz.

A <sub>1</sub>	A <sub>0</sub>	B <sub>1</sub>	B <sub>0</sub>	?	C	Z	N	V
0	0	0	0	(A) = (B)	1	1	0	0
0	0	0	1	(A) < (B)	0	0	1	0
0	0	1	0	(A) < (B)	0	0	1	1
0	0	1	1	(A) < (B)	0	0	0	0
0	1	0	0	(A) > (B)				
0	1	0	1	(A) = (B)	1	1	0	0
0	1	1	0	(A) < (B)	0	0	1	1
0	1	1	1	(A) < (B)	0	0	1	1
1	0	0	0	(A) > (B)	1	0	1	0
1	0	0	1	(A) > (B)	1	0	0	1
1	0	1	0	(A) = (B)	1	1	0	0
1	0	1	1	(A) < (B)	0	0	1	0
1	1	0	0	(A) > (B)	1	0	1	0
1	1	0	1	(A) > (B)	1	0	1	0
1	1	1	0	(A) > (B)				
1	1	1	1	(A) = (B)	1	1	0	0



- The "blank entries" should be filled in with the binary combination:  
 (A) 0 1 0 0    (B) 0 1 1 0    (C) 1 0 0 0    (D) 1 1 0 0    (E) none of these
- The type of magnitude comparator depicted in this chart is:  
 (A) one's complement    (B) two's complement    (C) unsigned    (D) none of these
- The function for "A equals B" ( $F_{A=B}$ ) can be expressed as:  
 (A)  $F_{A=B} = C$     (B)  $F_{A=B} = Z$     (C)  $F_{A=B} = N$     (D)  $F_{A=B} = V$     (E) none of these
- The function for "A less than B" ( $F_{A<B}$ ) can be expressed as:  
 (A)  $F_{A<B} = C$   
 (B)  $F_{A<B} = C'$   
 (C)  $F_{A<B} = C \cdot Z'$   
 (D)  $F_{A<B} = C' + Z$   
 (E) none of the above
- The function for "A greater than or equal to B" ( $F_{A \geq B}$ ) can be expressed as:  
 (A)  $F_{A \geq B} = C$   
 (B)  $F_{A \geq B} = C'$   
 (C)  $F_{A \geq B} = C \cdot Z'$   
 (D)  $F_{A \geq B} = C' + Z$   
 (E) none of the above

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