ANSWERS :- QUIZ 1
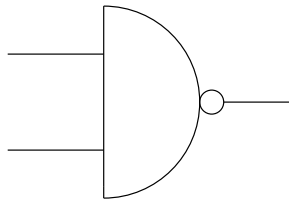
October 15, 2001
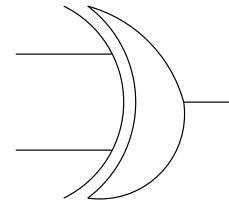
1. $(11011110)_2$

2. (a) \$ means that the numbers are in hexadecimal base.
   (b) \$0BFF - \$0800 +1=1023+1=1024

3. (a) $(10001110)_2$
   (b)$(01110001)_2$

4. (a) -4
   (b) -11
   (a) -12

5.

A	B	(AB)'
0	0	1
0	1	1
1	0	1
1	1	0

A	B	A$\oplus$B
0	0	0
0	1	1
1	0	1
1	1	0

NAND

XOR

6.

(X + Y')Y
= X.Y + Y'.Y [distributivity]

1

$= X.Y + 0$ [complementarity]
$= X.Y$ [identity]
$= Y.X$ [commutativity]

7. Error is that at least 4 variables are required for representing 12 months.

8. (a) $(\div\phi)_{27}$
   (b) $(\uparrow\leftarrow\uparrow\rightarrow\rightarrow\rightarrow)_3$