19/9/21

Albert Comas Pacheco
grup 22

Informe Previo P.O

Pregunta (1)

a) $\underset{7\,6\,5\,4\,3\,2\,1\,0}{10011101_2} = 1\cdot 2^7 + 1\cdot 2^4 + 1\cdot 2^3 + 1\cdot 2^2 + 1\cdot 2^0 = 128 + 16 + 8 + 4 + 1 = \boxed{157}$

b) $\underset{15\,14\,13\,12\,11\,10\,9\,8\,7\,6\,5\,4\,3\,2\,1\,0}{1100000011100001_2} = 1\cdot 2^{15} + 1\cdot 2^{14} + 1\cdot 2^7 + 1\cdot 2^6 + 1\cdot 2^5 + 1\cdot 2^0 = 32.768 + 16.384 + 128 + 64 + 32 + 1 = \boxed{49.377}$

c) $\underset{5\,4\,3\,2\,1\,0}{101010_2} = 1\cdot 2^5 + 1\cdot 2^3 + 1\cdot 2^1 = 32 + 8 + 2 = \boxed{42}$

Pregunta (2)

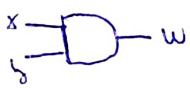
X_3	X_2	X_1	X_0	X_U
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	0	0	0	8
1	0	0	1	9
1	0	1	0	10
1	0	1	1	11
1	1	0	0	12
1	1	0	1	13
1	1	1	0	14
1	1	1	1	15

Pregunta (3)

- NOT

X	W
0	1
1	0

- AND



X	Y	W
0	0	0
0	1	0
1	0	0
1	1	1

- OR

X	y	W
0	0	0
0	1	1
1	0	1
1	1	1

Pregunta (4)

a)

X	Y	$\bar{x}$ a	$\bar{5}$ b	c	d	e	w
0	0	1	1	1	0	0	0
0	1	1	0	1	0	1	1
1	0	0	1	1	1	0	1
1	1	0	0	0	0	0	0

b)

X	Y	w
0	0	0
0	1	1
1	0	1
1	1	0

$$w = !y \cdot x + (!x + !y) \cdot y$$

Pregunta (5)

X	Y	!x	!y	!x+!y	!y·x	(!x+!y)·y	w
0	0	1	1	1	0	0	0
0	1	1	0	1	0	1	1
1	0	0	1	1	1	0	1
1	1	0	0	0	0	0	0