Sistemas Digitais

Aritmética e códigos binários – soluções

1. (a) $10000_{(2)}$
   (b) $111001_{(2)}$
   (c) $9E3_{(16)}$
   (d) $101101_{(2)}$

2. (a) $01010110_{(C2)}$
   (b) $10101010_{(C2)}$
   (c) $00011010_{(C2)}$
   (d) $00010111_{(C2)}$
   (e) *overflow*. -200 não é representável com 8 bits; intervalo de representação: $[-128, 127]$.

3. (a) $11_{(10)}$
   (b) $-66_{(10)}$
   (c) $-30_{(10)}$

4. (a) $31 \rightarrow 11111$
   (b) $1647 \rightarrow 11001101111$

5. (a) $0110000000100011_{(BCD)}$
   (b) $00010010.0101_{(BCD)}$
   (c) $1001.10000001_{(BCD)}$
   (d) $105_{(10)} = 000100000101_{(BCD)}$

6. (a) $6893_{(10)} = 1101011101101_{(2)}$
   (b) $455_{(10)} = 111000111_{(2)}$

7.

0	0	0	0	0
0	0	0	0	1
0	0	0	1	1
0	0	0	1	0
0	0	1	1	0
0	0	1	1	1
0	0	1	0	1
0	0	1	0	0
0	1	1	0	0
0	1	1	0	1
0	1	1	1	1
0	1	1	1	0
0	1	0	1	0
0	1	0	1	1
0	1	0	0	1
0	1	0	0	0
1	1	0	0	0
1	1	0	0	1
1	1	0	1	1
1	1	0	1	0
1	1	1	1	0
1	1	1	1	1
1	1	1	0	1
1	1	1	0	0
1	0	1	0	0
1	0	1	0	1
1	0	1	1	1
1	0	1	1	0
1	0	0	1	0
1	0	0	1	1
1	0	0	0	1
1	0	0	0	0