Digital Electronics

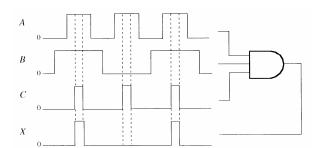
Answer Sheet 3

- Using binary representations, U is coded as 1010101, k is coded as 1101011. Converting these to hex gives U as 55 and k as 6B.
- 2. As the Gray code sequence is stepped through, only ONE bit of the code word changes at each step.

3.

Α	В	С	NAND	NOR
0	0	0	1	1
0	0	1	1	0
0	1	0	1	0
0	1	1	1	0
1	0	0	1	0
1	0	1	1	0
1	1	0	1	0
1	1	1	0	0

4. 2^{16}



5.

6. $Z = A \cdot B + C \cdot D$

A	В	С	D	A B	CD	Z
0	0	0	0	0	0	0
0	0	0	1	0	0	0
0	0	1	0	0	0	0
0	0	1	1	0	1	1
0	1	0	0	0	0	0
0	1	0	1	0	0	0
0	1	1	0	0	0	0
0	1	1	1	0	1	1
1	0	0	0	0	0	0
1	0	0	1	0	0	0
1	0	1	0	0	0	0
1	0	1	1	0	1	1
1	1	0	0	1	0	1
1	1	0	1	1	0	1
1	1	1	0	1	0	1
1	1	1	1	1	1	1

7.

