Sheet 1
Codes

1. Convert the following decimal numbers to BCD, Excess-3, 2421 and 84-2-1 codes and Gray code:
   14610.86 – 13061.035 – 9767.78 – 2631.234

2. Convert each of the following number to decimal (Mention if and why it does not represent this code):
   $(010101110011101010000.01110101)_{\text{Excess-3}}$
   $(010000101110.00010010)_{2421}$
   $(1100110100010011.001100000110)_{\text{Gray}}$
   $(1100110100010011.001100000110)_{84\text{-}2\text{-}1}$
   $(1000100100010011.001100000110)_{\text{BCD}}$

Decimal Digit	2421
0	0000
1	0001
2	0010
3	0011
4	0100
5	1011
6	1100
7	1101
8	1110
9	1111

3. Determine the binary code for each of the first 15 decimal numbers ($0 \rightarrow 14$) using weighted code with weights 7, 4, 2 and 1.

4. Add the following BCD numbers:
   000110000100.10000010 and 010101110110.1001
   0001001100000110.0011 and 0101001101100011.01010101
   0110100010000110100 0.0101 and 0000100000011000.10000001

5. Subtract the following BCD numbers (using complement):
   1000000110000100.10000010 and 010101110110.1001
   0110100010000110100 0.0101 and 0000100000011000.10000001

6. Write your full name, address and telephone number in ASCII code.

7. Decode the following ASCII code:
   1001010110111111010001101110010000010001001101111110010 1