1) $50822_{10} = 7 \cdot 9^4 + 6 \cdot 9^3 + 6 \cdot 9^2 + 3 \cdot 9^1 + 8 \cdot 9^0 = 76638_9$

2) $85667_9 = 7 \cdot 9^0 + 6 \cdot 9^1 + 6 \cdot 9^2 + 5 \cdot 9^3 + 8 \cdot 9^4 = 56680_{10}$

3) $010101_5 = 1 \cdot 5^0 + 1 \cdot 5^2 + 1 \cdot 5^4 = 651_{10} = 2 \cdot 15^2 + 13 \cdot 15^1 + 6 \cdot 15^0 = 2D6$

4) $68,82_{10} = 68_{10} + 0,82_{10} = \underbrace{(2^6 + 2^3)_{10}}_{1000100_2} + \underbrace{0,82_{10}}_{0,82 \cdot 2 = 1,64 \cdot 2 = 1,28 \cdot 2 = 0,56 \cdot 2 = 1,12 \cdot 2 = 0,24} = 1000100.11010_2$

5) $25,36_{16} = 25_{16} + 0,36_{16} = 2 \cdot 2^4 + 5 \cdot 2^0 + (2 \cdot 2^{-4} + 3 \cdot 2^{-8}) = 100101_2 + 2^{-3} + 2^{-7} + 2^{-8} =$
$= 100101.00100011_2$

6) $65,56_8 = 6 \cdot 8^1 + 5 \cdot 8^0 + 5 \cdot 8^{-1} + 6 \cdot 8^{-2} = (2^5 + 2^4 + 2^2 + 2^0) + (2^{-1} + 2^{-3} + 2^{-4} + 2^{-5}) =$
$= 110101,10111_2$

7) $0,\underbrace{1101}_{1}\underbrace{0100}_{2}{}_2 = \underbrace{(8/16 + 4/16 + 1/16)}_{1} + \underbrace{4 \cdot 1/256}_{2} = 13/16 + 4/256 = .D4_{16}$

8. $0,101111_2 = 32/64 + 8/64 + 4/64 + 2/64 + 1/64 = 47/64 = 0,73438_{10}$

9. $B7,93_{16} = 11 \cdot 16^1 + 7 \cdot 16^0 + 9 \cdot 16^{-1} + 3 \cdot 16^{-2} = 176 + 7 + (144/256 + 3/256) = 183 + 147/256 =$

$= 183,57422_{10}$

10. $94_{10} = 89 + 5 = 1000001000_{Ц}$

11. $\{^{\wedge}1\}\{^{\wedge}2\}\{^{\wedge}3\}21_{ТС} = -1 \cdot 7^4 - 2 \cdot 7^3 - 3 \cdot 7^2 + 2 \cdot 7^1 + 1 \cdot 7^0 = -3219_{10}$

12. $10010010_{ФИБ} = 34 + 8 + 2 = 44_{10}$

13. $100101.001001_{БЕРГ} = \left(\frac{1+\sqrt{5}}{2}\right)^5 + \left(\frac{1+\sqrt{5}}{2}\right)^2 + \left(\frac{1+\sqrt{5}}{2}\right)^0 + \left(\frac{1+\sqrt{5}}{2}\right)^{-3} + \left(\frac{1+\sqrt{5}}{2}\right)^{-6} =$

$= 15_{10}$

```
>>> a = (1 + 5**0.5) / 2
>>> a ** 5 + a ** 2 + 1 + a**(-3) + a ** (-6)
15.000000000000002
```